



ATC TRAINING SESSIONS 2017

Training with BBD – OWN your career

BBD BENEFITS

Just for you

WE ARE HIRING

Join our family

**SELPAL – GIVING VALUE
BACK TO THE CUSTOMER**

Technology at your finger tips

**TECH TALKS
FUTURE OF TRANSPORT**

Jeez would I love one of these!

BBD BULLETIN

APRIL EDITION // 2017

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NOTE FROM THE ED

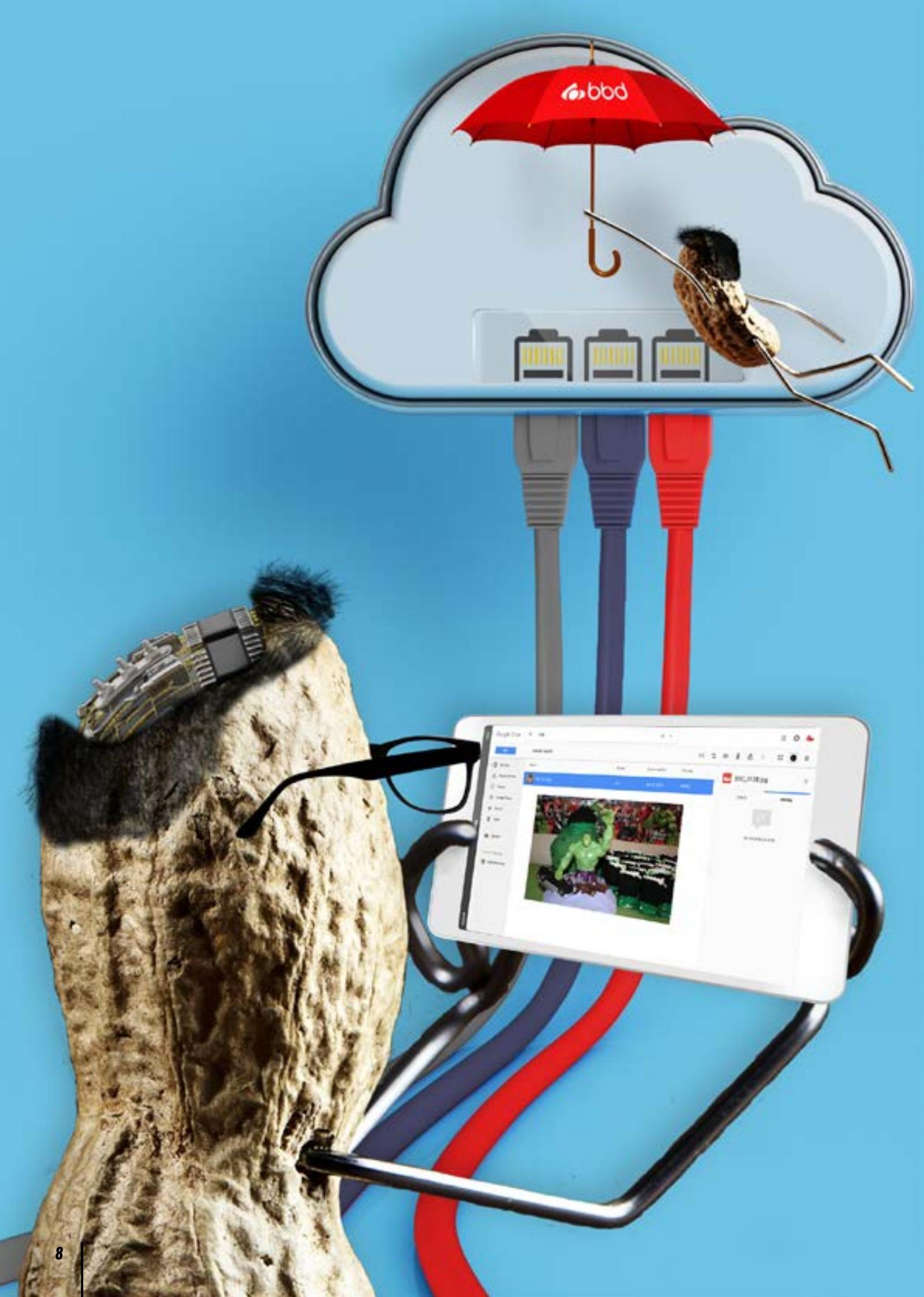
We are 4 months into the new year and much has happened. All the fees must fall hype ended with students in class as usual, a bunch of okes robbed an airport, flexed so hard they got caught, in a country of confusion and roaring parliamentary chambers, everyday life continues with trials and tribulations, peace and comfort, New Year's resolutions are rapidly dwindling as we work our way towards coming up with next year's resolution whilst putting in some much-needed life into the work/life balance conundrum!

Putting the BBD magazine together is no exception to this conundrum. From getting started, to creating, crafting and sourcing content, we spend 4 exciting, fun and stress filled months producing and incorporating great content and designs whilst assembling the magazine. This edition sees us exploring the world of gaming – a must for most, a glimpse into exciting projects BBD has and is delivering and much more.

On the premise that the web is a “lean forward and participate” medium and television, by contrast, is a “lean back and let it wash over me” medium, stop working for a few, kick up your feet, pour yourself a cuppa, take a load off putting your well-honed BS meter to the test - ENJOY the BBD culture of work hard play hard “lean back or forward and participate or zone out” but do enjoy consuming the eye candy put together just for you.

Come on – get involved - send us anything you would like to share to communications@bbd.co.za





The Peanut -Gallery-

In the Cloud! In my home, I am responsible for the functioning of all that is IT related from the internet connection, Wi-Fi, wireless printing and frankly the correct functioning of anything electronic. It's a thankless job as the minimum expectation is that it all works seamlessly. Vivienne and Alexander who are only 5 and 3, know how to access YouTube on an iPad or computer and in Vivienne's case even on the Samsung Smart TV! Another important duty is ensuring our digital photos and videos are safe and accessible. The old method of keeping it on a computer and then backing that up onto external drives became way too cumbersome given that we had multiple devices like our phones producing content and the ever increasing size of the library. I did some research and settled on Google with the winning attributes being unlimited storage for high quality pics up to 16MP, video at up to 1080p, a cool app for the phone and a decent web interface.

Getting the library loaded was a bit of a mission given that it was several hundred GB in size. At the time I only had a 20GB data monthly maximum, however, my provider allowed free data between 12am and 7am in the mornings so I split the work up over several evenings. Things went relatively smoothly but we ran out of data anyway because the clever app uses Wi-Fi at all times for the phone's content. Reaching the data limit and getting throttled down to 256K speed is a miserable fate and the little data addicts and formerly loving wife made it quite clear that this is a severity one situation in the house that could not wait for the new data allocation only a couple of days away. I quickly purchased more silencing the moans and helping to complete the upload. Once done, we had access to our entire history of photographs more or less in chronological order (some earlier pics have the wrong date but that can be corrected) through a smart app or web interface. It's quite powerful to be chatting with mates about a diving trip in 2008 and to quickly zip through to the photos in question on your phone.

The Google app is a delight to use and the assistant suggests albums or creates collages from a specific day or set of photos together with music and graphic effects. Of course, being Google, they added facial recognition and you can also search for photos by people who commonly appear in them. It really is amazing! Recently though my wife was looking for a specific photo showing a piñata. Her folks make them for children's parties and she was looking for a specific example. She could not remember the date of the party which featured the piñata and naturally this was escalated to me. Exasperated at how I could possibly help, I suggested she search for the word itself and amazingly Google showed lots of photos in our collection that featured a piñata. It is disturbingly good at dissecting your images.

Thinking on it later, I was amazed that back in the cloud, Google's image processor and AI (artificial intelligence) is working tirelessly going through everyone's content and tagging it extensively. I've subsequently tried other searches and have been amazed by the results. You can search using an image btw but I've not had the need to try that. If you have an iPhone, try interacting with Siri - again you will notice that the experience has become a whole lot better and increasingly seamless. I can dictate an SMS or email with very few errors and get the phone to do some simple tasks like setup an appointment or call someone. I must admit, I'm loving the tech and I'm keen for the AI to get even better. A lot of money is going into AI research and development, the race is on amongst the big players who are also acquiring all the AI companies they can get their hands on to improve their offering. AI has gone mainstream and I suspect that we will be called upon to implement elements and capabilities in the systems we do for our clients in the near future. Most of the big players have made their AI frameworks and tools open source in the belief that this will accelerate their work and spawn new ideas. It's an exciting world which is not void of ominous predictions that come with ground-breaking technological advancement, but also one in which the next 10 years will bring significant improvements in applications and our problem solving capability.

Maxime Papazian

DIRECTOR



Sessions - 2017

A core responsibility of ATC is to keep abreast of new and emerging technologies, help BBD explore and evaluate them, and assist in early and rapid adoption of chosen technologies.

ATC members provide technical consultancy services for clients, involving all phases of a project. In addition, they are sometimes seconded to BBD project teams to boost skills and/or mentor team members on particular technologies.

The capabilities and expertise within the ATC team stretch across the whole SDLC. Drop us a mail at atctraining@bbd.co.za to see where and how we can assist you in achieving your project goals. Dates are subject to change. Notifications of change will be handled via the community:

<https://community.bbd.co.za>



» C# Bootcamp	03 / 04 / 2017 - 05 / 04 / 2017
» C++ Bootcamp	08 / 05 / 2017 - 10 / 05 / 2017
» Xamarin Bootcamp	TBC
» Database Fundamentals Bootcamp	05 / 06 / 2017 - 07 / 06 / 2017
» Unit Testing Bootcamp	03 / 07 / 2017 - 04 / 07 / 2017
» HTML 5 & Angular 2 Bootcamp	14 / 08 / 2017 - 17 / 08 / 2017
» HTML 5 & Angular 2 Bootcamp	05 / 09 / 2017 - 08 / 09 / 2017
» Java Bootcamp	23 / 10 / 2017 - 25 / 10 / 2017
» C# Bootcamp	13 / 11 / 2017 - 15 / 11 / 2017
» Xamarin Bootcamp	20 / 11 / 2017 - 22 / 11 / 2017

Bootcamps



Short Courses

» Azure Services Short Course	07 / 04 / 2017
» Design Patterns Short Course	15 / 05 / 2017 - 16 / 05 / 2017
» AWS Services Short Course	26 / 05 / 2017
» Design Patterns Short Course	21 / 06 / 2017 - 22 / 06 / 2017
» CI/CD Short Course	26 / 06 / 2017 - 27 / 06 / 2017
» Testing: Bridging The Gap Short Course	12 / 07 / 2017 - 13 / 07 / 2017
» Containerisation (Docker) Short Course	24 / 07 / 2017 - 25 / 07 / 2017
» Scrum Fundamentals Short Course	31 / 07 / 2017
» Java Tooling Short Course	02 / 08 / 2017 - 03 / 08 / 2017
» Service Design Short Course	18 / 08 / 2017
» Containerisation (Docker) Short Course	21 / 08 / 2017 - 22 / 08 / 2017
» Spring 1 Short Course	18 / 09 / 2017 - 19 / 09 / 2017
» Micro Service Architecture Short Course	28 / 09 / 2017 - 29 / 09 / 2017
» Spring 2 Short Course	16 / 10 / 2017 - 17 / 10 / 2017
» Azure Services Short Course	30 / 10 / 2017
» AWS Service Short Course	03 / 11 / 2017
» Security Short Course	27 / 11 / 2017



Events

» Code Retreat	01 / 04 / 2017
» Java Day	TBC
» Hackathon	30 / 06 / 2017
» Hackathon	04 / 08 / 2017
» Esc@pe 2017	31 / 08 / 2017
» India Hackathon	TBC
» Code Retreat	02 / 12 / 2017

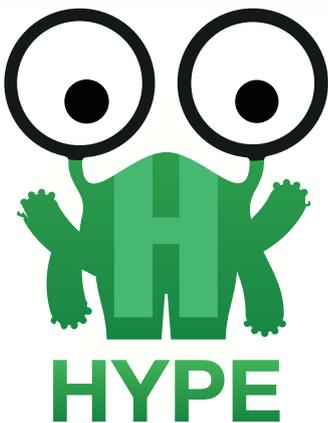


Certifications

» Java Associate	15 / 02 / 2017 - 05 / 04 / 2017
» Java Associate Examination	19 / 04 / 2017
» Java Programmers	26 / 04 / 2017 - 21 / 06 / 2017
» Scrum Master	12 / 06 / 2017 - 13 / 06 / 2017
» Java Programmers Examination	05 / 07 / 2017
» Scrum Master	14 / 09 / 2017 - 15 / 09 / 2017
» Java EJB	04 / 10 / 2017 - 29 / 11 / 2017
» Java EJB Examination	13 / 12 / 2017
» C#	TBC



bbd
AWARD
NOMINATIONS
2017



ABOUT **AWARD NOMINATIONS**

The 2017 Award Nominations will **accept nominations for anybody in whichever category**, and there will be **two winners selected every month!** The nominations will run from February through to October. The grand prize winners will be announced in November.

Winners chosen on a monthly basis will **receive awesome prizes** and will be entered into the final draw. Three lucky people stand a chance of winning a share of the **R120,000 at the end of the year!**

1st **R60,000** // 2nd **R40,000** // 3rd **R20,000**

This year the award winners will have the opportunity to **"PICK A PRIZE"** from a **CHOICE** range of prizes. In addition to this, winners will be given **a selection of charities**, from which they can select one, and BBD will **donate R1000** on their behalf!

The Award Nominations give **recognition for exceptional solution and service delivery**. They recognise the excellence within the company by **rewarding BBD staff members** who go beyond the call of duty for our clients and colleagues. Those who are **"doing what it takes"** so to speak.

LAST YEAR'S LUCKY WINNERS



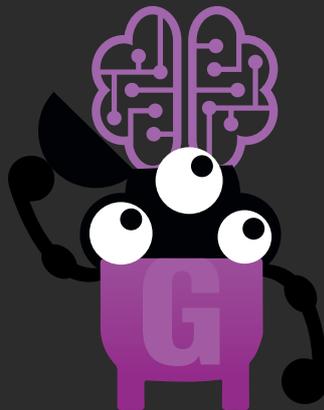
THE CATEGORIES



HYPE

HELPING YOUR PEOPLE

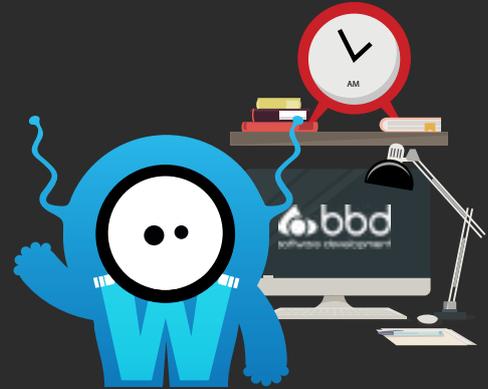
Recognising the individual who always delivers an extraordinarily high standard of work, and is acknowledged in their team as a mentor, sharer of skills, time and knowledge.



GROW

GRASPS OPPORTUNITIES & WISDOM

This category recognises the improvement and development of skills. A person who takes initiative to develop and improve their career through continuous learning and skill acquisition and successfully seek out training or on-the-job opportunities for developing skills.



WIT

WHATEVER IT TAKES

This category is for the kingpin of perfection and reliability – the person who is driven towards ensuring client satisfaction no matter what the personal cost. An almost endless source of dedication, passion and enthusiasm, this individual is a tireless long-term champion for the successful delivery of projects.



STEALTH

THE SILENT OPERATOR

Quiet and dependable, the stealth award is designed to recognise the individual who is not often heard, but whose positive impact is always keenly felt.



UBA

ULTIMATE BBD AGENT

This is the individual who spearheads the conversion of ideas into realities, fosters the BBD philosophy at every turn with a relentless ambition to promote the true essence of what the company stands for and upholding the BBD brand in everything they do.

bdd AWARD NOMINATIONS WINNERS

Charity: Door of Hope



Annelien's charity of choice to donate R1000 to is Door of Hope.

What was the reason you chose this specific charity?

"I chose Door of Hope because I feel that babies don't ask to come into this world and it is cruel to abandon a helpless baby. The work that Door of Hope does in saving helpless babies is moving and I would love to donate money to them."

Chosen for **GROW**

Annelien continues to **grow** and **learn** in her position as a BA and has gained invaluable **technical skills** which help her identify almost all problems. She is **fully capable** of **managing** herself and her team without needing guidance and input. Annelien is a **very competent business analyst**. She is the go-to person with the answers.



**ANNELIEN
JANKOWITZ**

Charity: CANSA

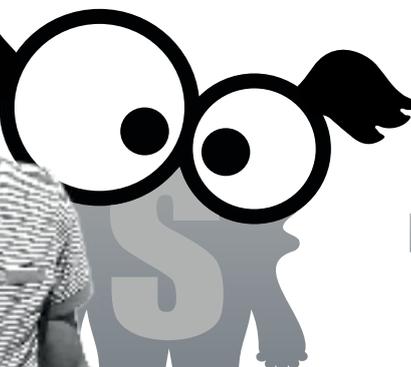
Kabelo's charity of choice to donate R1000 to is CANSA.

What was the reason you chose this specific charity?

"I have chosen CANSA because I have a family member who is in the last stages of chemotherapy, so I believe this donation will help others who suffer from cancer."

Chosen for **STEALTH**

Kabelo is **exceptionally** hard working and is a **key player** in the team. He has taken on an enormous amount of **responsibility** and is always willing to help others. Kabelo's **humble** persona and **commitment** to the project makes him a **silent operator**. Without him the project he is working on would not be where it is now.



**KABELO
LAKA**



what's

happening

at bbd

Yesterday, today and tomorrow

johannesburg

- Spoils with snug blankets for winter.
- Out with the old – in with the new - state of the art JIRA coffee machines.
- Moving on up – and over to Office 365 – mails are now hosted in the Cloud.
- Capturing time, applying for leave, submitting claims or updating your skills has never been easier with our new and improved iCapture internal software system.
- Exciting new RA benefits for all staff.

pretoria

- With the completion of the renovations of our office in the last quarter of 2016, the Pretoria offices now truly feel like a second home.
- Our teams continue to deliver value at our long standing clients including SARS, DHA, King Price, National Treasury and Momentum.
- The MSDF team, after a super charged short period from mid-October last year, has successfully implemented the ISFAP Tertiary Student support tool, which enables ISFAP project managers and University Service Providers to monitor, mentor and guide students who have qualified for the funding program.
- We are also very excited about a number of new projects and opportunities at OUTSurance and Momentum.
- The Facilities team has installed a new fibre line that has increased our internet capacity, ensuring better communication between us and our clients.
- We are also exploring options to upgrade our video conferencing facilities.

cape town

- We are focusing on recruiting top talent.
- Fiveour very talented graduates who joined us and have been thrown in the deep end, after 3 months they are still smiling.
- Recently hosted a Java meetup event which was attended by 30 Java community members with some good talks, food, drinks and great feedback from the attendees.
- We are sponsoring the “I code Java” event this year attended by many java dev’s & CTO’s which is sure to improve brand awareness.
- An inception project for a new client has kicked off and we trust that we will shortly need to ramp up a dev team for a new system build.

pune

- We have moved our offices to a new building – Sky Vista. The new BBD offices are on the 7th floor and have panoramic views of Pune in three directions and can accommodate around 100 staff.
- Proper backup generators have been installed so power cuts are finally a worry of the past and we even have our own BBD family wall and branded meeting rooms. What’s more there is a bar on the roof!
- Our staff compliment continues to increase and we anticipate having 60 staff by June 2017.
- The India co-shored team supports BBD SA teams for the Vodacom, SARS and Standard Bank units and we have recently started a test team for Nedbank.
- Francois Bester and Maryke Nel have moved to India to run the office, both from an operational point of view and to assist the development teams in managing delivery and communications to BBD SA.



b b d
b i e r f e s t

TEXAS
RODEO

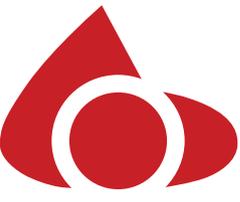








b b d
bierfest



b b d benefits

From state of the art equipment to out of this world events, a wide selection of free and subsidised meals, an assortment of drinks and the best imported coffee this side of the equator at the touch of a button – BBD will leave you lusting for more! De-stress on one of our many putting greens or get social on a Friday at the fully stocked bar.

BBD focuses on creating an environment where staff can thrive in a home away from home environment where we work hard and play hard. Here are some of the excellent perks BBD offers:

1. BAR1 CAFE

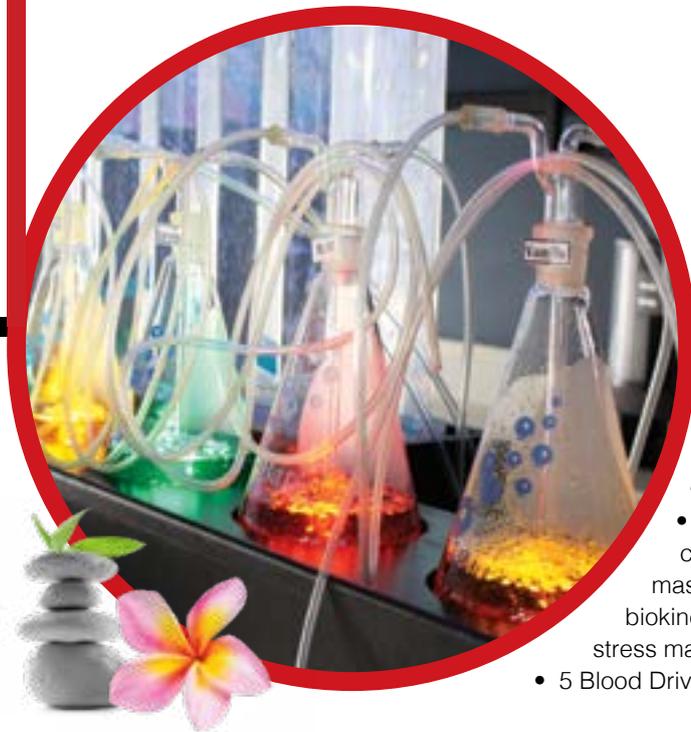
- Canteen stocked with cutlery, crockery and vending machines boasting delicious snacks and drinks for FREE
- Assorted breakfast cereals
- OPEN pantry filled with bread and fruits
- Jams, butters and assorted condiments
- Subsidised meals – spoiled for choice and banting friendly
- UNLIMITED supply of “BDD branded prepared still and sparkling water”
- High tech dishwashers and microwaves
- Screen and projector for sporting event viewing



2. COFFEE STATIONS

- BOTTOMLESS coffee in a variety of choices such as Tanzanian Mbeya, Burundi and Ethiopia
- Cookie jars and an assortment of treats
- BIBO – filtered hot, tepid & cold water on DEMAND
- Hand sanitizers – for your convenience to prevent spread of germs and bacteria





3. BAR1

- 42" TV screens
- Beer, wine and cider on tap every Friday from 4pm (staff only)
- Juke Box
- Board games



4. WELLNESS

- Vitality health assessments
- FREE flu vaccinations & vitamin B injections
- Annual eye tests with specialized optometrists
- Annual Wellness days with activities such as cocktail and sushi bar, reflexology, manicures, massages, hypnotherapy, live blood analysis, biokineticist, chiropractor, gaming, photo booth and stress management
- 5 Blood Drives per year

5. COMPANY KABOODLE

- A games room, a pool table, dart board, giant Jenga and various arcade machines with plenty games
- Putting greens
- Breakaway rooms, private telephone rooms and conversation areas
- Underground and shade net parking
- State of the art tools of the trade – laptops, screens
- Our very own Colab Centre for all your training requirements
- UNCAPPED internet access / WiFi



6. EVENTS

- Kick ass year end company functions with great entertainment, good food and Good Fellas or similar to escort you home
- Amazing team building events
- Team lunches
- An annual Shavathon event to raise money for the CANSA Association
 - Annual BBD technology event – Esc@pe
 - Mid-Year company update and entertainment
 - The Bierfest where our brewery teams compete to make the best home made craft beer, the Nomination Awards winners are announced and all nominees stand a chance to win loads of cash (R120,000)
- Amazing prizes awarded on a monthly basis for staff recognition such as Samsung Gear, TV's, gas braais, drones, Playstation consoles, GoPro's, Nespresso coffee machines, sound systems, cinema projectors, wine fridge filled with a variety of wines and each winner get to donate R1000.00 to a charity of their choice



7. THE SOFTER SIDE



- Payday chocolates & treats
 - Just got married – we give you moola
 - Had a baby – we give you moola
 - Flexible working conditions and hours
 - Increased leave days
 - 3G allowance where applicable
 - Assistance with studying
 - 50% PAID for medical aid benefit
 - Bonuses paid for going way above and beyond the call of duty
 - Capital Alliance – death, disability & dread disease cover
 - Allan Gray RA - % of gross package paid on your behalf
 - Internal magazines and competitions to create a fun working environment with many exciting prizes to be won
 - Gautrain shuttle service to and from Rosebank station
 - FREE ecowash car washing service available weekly

8. TAKING INITIATIVE

- Onsite training by SA's top IT specialists, keeping you on top of your game and always ahead of the curve with the latest technologies
- Financial aid to assist employees in furthering studies including Bursary, Learnership and Graduate programs
- Socio-economic development - many opportunities to get involved in helping the less fortunate
- Enterprise development for young up and coming IT entrepreneurs



9. SPORTS

- Sponsored uniforms for all sporting teams:
 - Cycling
 - Action cricket
 - Soccer





we are **hiring!**

If you are interested in joining the **BEST** software engineers at SA's largest bespoke software development company, email recruitment@bbd.co.za now!

LOOKING FOR

- Java developers
- JavaScript developers
- C# developers
- Mobile developers
- C++ developers
- Business analysts
- Test analysts

BBD OFFERS

- Projects in all the latest technologies
- Work across all major industries
- Mentorship & personal growth
- Regular internal training courses
- Company sponsored certification & external training
- Partnerships with major international & local software organisations
- Internal R&D department
- Free vending machines
- A casual & fun culture
- Reward programmes
- The top software development employer in SA to have on your CV

• **jhb** • **pta** • **cpt** • **india**



PUBLIC SECTOR VERTICAL

“ BBD, over the past 10 years or so, has been involved in the implementation and execution of initiatives that help organisations in their transformation journey. ”

The year 2017 is an interesting year. For one, it sits smack bang in the middle of the current government medium-term strategic framework for the period 2014 to 2019 and secondly because it is the time for political parties to review, prepare and present their domestic policy plans to the citizens as a precursor to forthcoming elections. Furthermore, as we reflect on previous years and the climax of 2016 with the resurgence of unrest within the education portfolio and the birth of #FeesMustFall – we specifically look at the role of government ICT sector as a means to leverage on emerging trends to improve access to government services and to build predictive intelligence capabilities to drive service delivery across the board.

BBD, for more than a decade, has been involved in the implementation and execution of initiatives that help organisations in their transformation journey. As the modernisation programme is gaining steam across government, allowing organisations to move from paper-based business management to automated and analytical business management for delivery of a high-quality citizen experience – BBD makes this journey with them.

We understand the contextual relations of Government to citizens/government/business (aka G2X) objects and through client environments such as SARS and DHA, we continue to deliver on automation and digital-enablement of easier and real-time multichannel communication platforms between stakeholders. Barring any modernisation, consolidation and integration of the infrastructure (servers, physical spaces and network), BBD has recently deployed a digitisation project for Department of Justice & Constitutional Development. This project is an intersection of tradition (physical paper and manual processes) and innovation.

The ultimate role BBD can play is delivering a high-performance application environment whereby departments can provide services to citizens as a seamless and meaningful experience that is supported by availability of a converged physical channel (network, data sources and devices). The digital transformation journey of public sector by its nature, requires that all key stakeholders must be hands-on as such without transformation and collaboration - integrating any portfolio such as education, health and any primary Inter-Governmental relations remains but “a dream hoped for.” BBD Holdings is servicing such a key national portfolio of clients like education and health, and it is our intention to continue to build momentum for servicing other government clusters such as the security cluster. What is required from government’s perspective is a “political will” to enforce and drive better collaboration through a solid Inter-Governmental governing body. BBD has proven through current projects, that successful Inter-Governmental initiatives are possible. They must be prioritised and turf wars must stop for the betterment of our country and economy.

WE ARE // SOCIAL

-  /BBDSoftwareDevelopment
-  /BBDSoftwareDevelopment
-  /BBDSoftware
-  /company/bbd
-  /bbdsoftware
-  /bbdsoftware





BBD BRINGS THE GAUTRAIN TO OUR DOORSTEP..



DESTINATION:
TO AND FROM ROSEBANK STATION



01010101010101010101010101010101

DAY OF TRANSFERS

WEEK DAYS: Every Monday - Friday

COLLECTIONS

MORNINGS: 07h10 & 08h10 - Rosebank

AFTERNOONS: 16h15 & 17h15 - Killarney

Collection from Rosebank - follow Gautrain signs to the shuttle taxi area on Oxford Road South.



01010101010101010101010101010101

BOARDING PASS



CAPE TOWN YEAR END FUNCTION

BBD ON SEA





SEA CARRIER
VAIS

GROUP OF COMPANIES UPDATE



South African political and economic turmoil and international events such as Brexit and other events signalling a strong swing towards nationalism have been the backdrop to BBD's year of 2016. Overall the year has been a good one for us with a number of new clients coming on board and generally good growth across the existing client base.

The technologies of the cloud are being used more by our teams as they deliver solutions. We have seen significant savings for certain clients in deploying the solutions in the cloud. There is however, as is seen in all IT tech, a lot of hype and promise with the reality being the same as always. Solid people with a good understanding of the tech are required to design and implement solutions using these technologies. Continued focus on doing our best to ensure that all of BBD's people are exposed to skills development via training, mentorship and on the job experience is a top priority in BBD. This needs to be a focus for every person, as motivation to learn and grow, needs to come from us.

Thank you to the people of BBD for working well as a team in making sure our clients really do get the best software delivered and working to add value to their businesses.





In the past year the BBD India office has, to use an often quoted term in SA sporting fraternities, gone from strength to strength. It has seen us outgrow our first home in a tech park called Gigaspace and move to our sexy new offices in the SkyVista building. A move that is much appreciated by our BBD India staff as the new premises are a significant improvement on the previous ones, have a great 270 degree view of Pune and there is a bar on the roof! Our attention this year has been almost entirely focused on recruitment, mostly driven by demand for talent in the Vodacom unit, and ensuring we deliver quality software into the SA teams, both of which we have achieved with some success.

For the year ahead our focus areas will be recruitment, diversification and processes. There will still be a strong recruitment drive, but we will seek to improve our recruitment processes. In India the demand for talent is so great that we are only landing 20% of the candidates we make offers to. In this vein we will be looking at ways to improve our conversion rate.

Developing software requires continuous communication between team members which is easy if you sit next to each other, but is challenging when you are separated by an ocean. Remote development requires much greater attention to processes to overcome the communication hurdles, agile speaks to some of these difficulties but not all. So we continue to refine and invent process mechanisms to enable remote development to be as efficient as co-located development.

The BBD India staff are making significant contributions to SA development teams and it's thanks to the staff on both sides of the Indian ocean for making it possible. This is not restricted to technical staff, a lot of effort has also been put in by HR, Admin, Facilities and of course Recruitment too. A special thanks to Maryke and Francois from SA who have relocated to the Pune office in order to facilitate the improvement in processes and efficiencies.

innosys

There really is an app for everything. The last base was probably covered by Cuddlr, the app to help you find someone in your immediate vicinity who needs a hug. Or perhaps by Carr Matey, which reminds you where you parked your car... in a pirate voice.

Over the last few years, we've all had front row seats watching large and small businesses throw serious money at developing mobile applications. According to Gartner, more than 75% of enterprise apps have ended up in the uninstall bin. We blame herd mentality. Everyone wanted an app for business because everyone else had an app for business - very few had a real need for them.

The insurance industry is definitely no exception to this. You have to feel some sympathy for the executive who championed

a mobile app to help clients claim more easily, only to see the number of claims paid by his business more than double. Now that the app honeymoon phase is well and truly over, organisations are starting to re-assess how they can take advantage of mobile devices to do better business, better. More companies are seeing the value of apps being part of a digital strategy, rather than apps being that strategy.

At Innosys, we're quite enjoying this shift in gear. Our clients are stepping away from consumer-facing eye candy in favour of mobile tools to make internal business processes more efficient. The paralysing fear of everything beyond the iOS ecosystem is coming to an end in our corporates. Xamarin and React Native... here we come. Tough (and real) business problems to solve with clever software? Just what we like most.



MVT, as an initiative to support an up and coming entrepreneur saw some good advances over the past months. The business was able to finalise an agreement with its key government client and is currently engaging in a roll out of its identity offering on a POC basis within another large government department, which thus far appears to be delivering the expected benefits in control and process improvements.

The application of the core system and potential bolt on additions thereto is being investigated across a number of government departments that have expressed an interest.

There is real potential for the application to be a key tool in improving service delivery by providing easy foolproof identification of the recipients and many value additions closely linked thereto.

As a group we continue to go down a learning path in our dealings with very different government entities to those we have historically engaged with but the upside potential for the business and the real value that can be delivered into key aspects of our society make the journey worthwhile.



BBD GROUP



BBD's core business is bespoke software development, consulting, integration and system support & maintenance. We are South Africa's premier provider of these services with the longest track record and the largest skills base.



BBD Pune compliments BBD SA's core business by attracting the most talented individuals that one of India's top University cities has to offer. As Pune is a growing IT Hub, BBD Pune is also able to access specialist skills that are scarce in South Africa.



InnoSys, a subsidiary company of BBD, is a specialist in the development of custom software systems for the South African, UK and European insurance industries. InnoSys has extensive insurance knowledge and experience in the development, implementation and post-implementation support of systems across a range of short term, life, commercial and specialist niche insurance domains.



MVT Technologies is a co-operation between BBD and Hloni Nthako, an entrepreneur passionate about enabling technologies and focuses on providing bespoke software solutions in identity management and verification in both the public and private sector.

BBD STRUCTURE



Sphere Investments // 49.9%
Broad Based Educational Trust // 1.1%

BBD Management // 49%



BBD // 100%



BBD // 73%

Innosys Management // 27%



BBD // 49%

MVT Management // 51%





PREMIER VERIFICATION

B-BBEE Verification Certificate
Issued to:

Barone, Budge & Dominick (Pty) Ltd

1 Newtown Avenue, Killarney, Gauteng, 2193

Company Registration: 198400788907

VAT: 4070111713

LEVEL FOUR (4) CONTRIBUTOR

B-BBEE Recognition Level – 100.00%
Procurement Recognition Level – 125.00%

*Generic Scorecard
Information and Communication Technology (ICT) Charter (Section 9(1), 35423)*

<u>Criteria</u>	<u>Result</u>	<u>Element</u>	<u>Result</u>	<u>Weight</u>
Value Adding Supplier	Yes	Ownership	16.50	20.00
Enterprise Development Beneficiary	Category B	Management Control	3.04	10.00
Black Ownership	51.01%	Employment Equity	0.82	10.00
Black Female Ownership	16.24%	Skills Development	0.80	17.00
Modified Flow Through Applied	Yes	Preferential Procurement	19.15	20.00
Issue Date	29 April 2016	Enterprise Development	11.00	11.00
Expiry Date	28 April 2017	Socio-Economic Development	11.43	12.00
Certificate Number	PV 1604077	Overall Result	72.74	100.00
		Deemed Result	72.74	100.00


 Kelo, Arine Keams
 Premier Verification (Pty) Ltd


 sanas
 South African National Accreditation System
 BVA100

Tel: 010 591 0591
 Fax: 086 626 7484
 Postnet Suite 334, Private Bag X11, Craighall, 2024
 No. 5 Second Road, Hyde Park,
 Fountain Grove Office Park, Block 2, Johannesburg
www.premierbee.co.za



As a level 4 contributor, BBD shows an on-going commitment to all the different aspects of B-BBEE. The different pillars that are used for measurement of a business in the ICT Sector are designed to require a B-BBEE focus on ownership, management, procurement, employment, training, business development and social initiatives.

A recent change in the ICT Sector B-BBEE codes has meant that social initiatives are now focused on helping South Africans cross the digital divide. BBD's level 4 score, along with being recognised as a value adding enterprise, means that BBD clients can claim 125% of every Rand spent with BBD as B-BBEE spend.



Hang in there



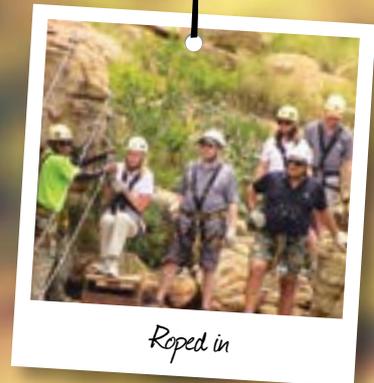
Over



Catch me if you can



An adventure to be repeated



Roped in

HANGING ON ADVENTURE



our happy place



King of swing



Real fun - the BBD way.

... "Save the Date // SARS Teambuilding: Date 12 January 2017", the email appeared in our inboxes, towards the middle of December 2016. We all got excited because it had been a whiiiiiiile since the SARS team had a team building.

We were all at the office by 07h45 sharp. There were smiles all around the office, with everyone very casually dressed and ready for a day of adventure. We had a light breakfast on the go and were in the bus by 08h00. It was smooth sailing to Magaliesberg, via the N4 route and we reached our destination shortly before 10h00.

The guides were ready for us and we got straight into things. We were split into 4 groups of 8. We all had to sign the "should you die" paper, AKA indemnity forms, just in case... ;-) Roped into our harnesses, helmets on and into the trucks we went, eager for the fun to begin.

For the next 2 hours, we ziplined and ziplined some more. There were 10 ziplines, each faster or longer than the previous, but all were AWESOME! I wondered about some of the screams I heard from the guys, but hey, no judging. Everyone agreed it was an AWESOME experience. Some of us felt like mini-Tarzans on the day. We ended the swinging in the air experience with a peaceful hike up to the top of the hill, where this all started.

We had a light lunch which was served with a selection of drinks to quench our thirst. Followed by a little time out. Part 2 of our adventure had us heading to our happy place - De Vette Mossel, in Haarties. Boy, was it fun - the BBD way. I swear I haven't had sooooo much sea food in my life and it kept on coming, dish after dish and naturally the drinks kept on flowing too. I watched the whole concept of this "gathering" unfold. I saw people that have never worked together on projects sitting together, having fun. At that moment, I thought... mission accomplished!!!

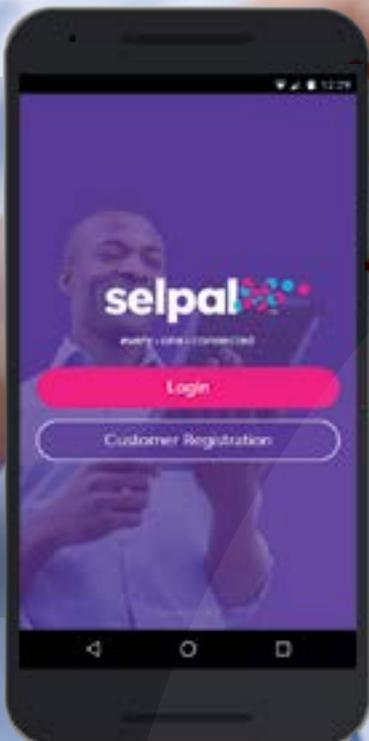
We left De Vette Mossel just after 7pm and the drive back was not as quiet as it was going there, but that was expected! This was an adventure to be repeated.



Mission accomplished



“A product performance tracking platform, enabling market insight into the rural sector and giving value back to both merchants and customers.”



What is selpal?

Selpal is a point of sale system for the rural merchants that record transactions and give value back to the customer and merchant, based on budgets and promotions set up against each product on offer. The merchants are enabled with a mobile app on a tablet, where they can choose and dispense goods and other services such as money transfers, deposits, airtime and data purchases, pre-paid electricity and other key features. Selpal works with a virtual wallet system where you can deposit and keep your cash safe and access it at any selpal merchant or via a self-service app (available on the google play store) or USSD. Creating a stepping stone to the cashless society.

Success

Selpal is one of those projects the team and BBD can be really proud of. The team has worked extremely hard to put the client's objectives first over their own. Working long hours and most weekends for 3 - 4 months. Selpal started off as a backend rewrite to C# with a dead line of only 3 months. The clock started ticking, so we had the guys from ATC deep dive the application. It was a full rewrite and a massive change in direction and architecture as the previous attempt was miles off target. Microsoft Azure was the platform we adopted and has been a huge win for this project.

Cloud computing

The cloud has changed massively over the past few years since its introduction. What's the point of having your servers that you still have to manage and patch and tweak, sitting in another country? Today software as a service is miles ahead of where they wanted cloud technology to go. Now you just put your application in the cloud and pay per usage on the app and its resources, monitoring, alerts, CI (Continuous Integration), on demand scaling... all free.

Performance

When Selpal wanted to put a Selpal device in every tavern, spaza shop and in every township, the need for scale was one of our top goals when we built Selpal. We also knew this road would be a long one and was not going to be achieved over night however, with a public facing application, it could! This fitted Azure to the "t" with low start-up costs and on demand scaling as the system's footprint in the market grew. We knew that each call would take +- 200ms to return plus our own code running, so we had to really work with the latency not against it.

Growth

Selpal has grown from a POC of 10 merchants during the go live phase to nearly 200 fix merchants, and 2000 customers with the launch of mobile merchants that rose to 200 mobile merchants within 2 weeks and steadily climbing. We are currently operating on the lowest tier of azure and still have plenty room for growth before the need to scale is needed.

So where to from here...

We are continuously pushing to add more products, features and on boarding new merchants - bringing more value to this sector.

Trevor Mahon
BBD Selpal Team





DOING REST WELL

“RESTing
on the job”

“Introduction” : {

There have been various driving principals when it comes to API's. We have moved from custom socket-based communication to open web protocol HTTP. We have moved from binary data to text-based data. We have moved from verbose data like XML to simpler data like JSON. We have moved from two or more API standards for client and server to one API standard for both. Moved from slow network speeds to faster network speeds. We have moved from limited single request client connections to a multiplexed client connection. Moved from mostly server-side API calls to mostly client side API calls. All of this has setup a “perfect storm” for API's that allows us to write them in different languages and expose them to the internet so that they can be used by servers, laptops, mobiles, watches and other IOT devices, turning the world into a distributed computer. It would be impossible to cover all the aspects of a good RESTful API in this article, but here are a few core guidelines.

Pragmatically RESTing Well : {

[THE BASICS]

- Web standards and JSON data
- Simple, intuitive and consistent addresses
- Lightweight

[THE ADDRESS]

- RESTful URLs (separating API into logical resources)
- RESTful verbs (manipulating logic resources – GET, PUT, POST, DELETE, PATCH, HEAD, TRACE)

- Singular resource names (same as database tables, plurals implied)
- Sub-resources for more complex API actions
- Version API on the URL
- Query parameters for filtering, sorting or searching (sub-resource names to simplify)

SECURITY

- HTTPS with AUTH Header (JWT – OAUTH2), no cookies or session

[DOCUMENTATION]

- Swagger in source

[ERROR HANDLING]

- Standard HTTP error codes
- HTTP headers instead of response wrappers

[REQUESTS]

- JSON for nested or typed data updates, otherwise URL encoded

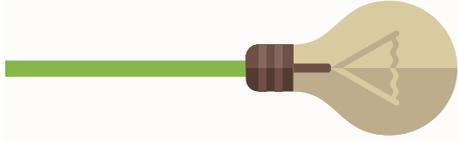
[RESPONSES]

- JSON pretty-print and gzipped
- Updates return statuses, not updated resource info
- ETag, Last Modified caching

Dave Wilson

BBD VSP TEAM

Environmental Policy



BBD is dedicated to reducing our impact on the environment. We strive to continuously improve our environmental performance and to initiate projects and activities that will further reduce our footprint on the environment. Our commitment extends to our clients, our staff, and the community in which we operate.

We are committed to:

Complying with all applicable environmental regulations set out by the Department of Labour, such as:

- Thermal requirements
- Lighting
- Windows
- Ventilation
- Housekeeping
- Noise and hearing conservation
- Fire precautions

We reduce pollution and waste where possible, by means of:

LED lighting in our office space
Controlled lighting on motion sensors
E-waste recycling
Expired battery collection points
Waterless carwash
Recycling bins

BBD communicates the environmental policy and encourages contribution and participation

We promote efficient and conservative use of resources in the working environment such as water, electricity and paper to name a few.

Avoid unnecessary use of hazardous materials and products, seek substitutions when feasible and take all reasonable steps to promote a healthy environment when such materials are used, stored and disposed of.

We strive to continually improve our environmental performance and minimise the social impact and damage of activities by periodically reviewing our environmental policy in light of our current and planned activities.



bbd Mannequin Challenge





Has your **motionless video** been set into motion?

- **How to** -

- Video to be no longer than 1 minute
- Any song may be used in the background
- Send your video to communications@bbd.co.za before the **31st May 2017**

If you require video editing, please contact the communications team for assistance.

Time to have fun, be original and **WIN SUPER RAD PRIZES!**





the BUR OUT



Earlier in the year, the Production Support group of the SARS team went for an advanced driving course at Gerotech, just to “up” our supporting skills necessary for SARS. It started out as a rainy day which counted in our favour as it was going to be advanced driving. Most of the team pitched with their own vehicles, from Johan’s Land Cruiser truck to Andre’s Mercedes, Maxime’s Porsche and everything in between.

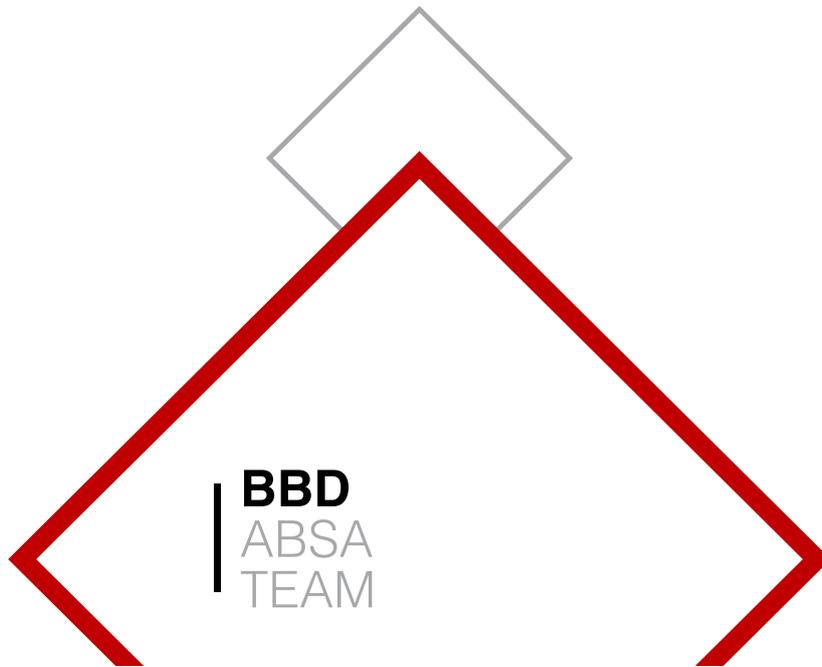
The event started with the instructor stressing the most important rules according to the law in South Africa. Luckily, he limited the theory to about 10 minutes after which the driving started. The first part of the course was an emergency stop demonstration, illustrating how speed influences stopping distances, even if you have ABS. By doubling your speed, it will increase the distance you need to stop by three. We then had the chance to practice emergency stopping while trying to miss the cones. We had an “obstacles course” where we had to use the 10 to 2 steering technique while trying not to hit anything. We had a go on the high speed oval and at driving the car at 120 km/h with no hands (naturally we had contingency plans in place) where the oval would steer the car.

We witnessed the Porsche speed past us at 220 km/h! After lunch, we headed for the most exciting part of the course – the skidpan. Before we were allowed on the skidpan, we were instructed on the difference between understeering and

oversteering as well as how to do a handbrake turn and regain control of the vehicle while in motion. A lot of fun & laughs were had on the skidpan – not to mention the skid marks! The real supporting test was the last advanced time trail on the skidpan where we had to be a driver and a navigator (they had the idea of implementing pair programming in advanced driving) and we had to support each other. While the Porsche could go very fast, we all had to take the test using the provided Ford Fiesta (luckily no Kuga), however due to the unfair advantage of Maxime driving a Porsche he took pole position by driving the Fiesta in the fastest time of 55.10s, followed by David Jonker in a close second with 56.53s, in third place (with no following distance) was Allistaire Clark with 56.55s.

Going sideways as described by Dhiren Beni, made the team more advantageous into supporting SARS at high speed.

Jaco Viljoen
BBD SARS TEAM



Absa has been a client of ours for several years. During this time BBD has been evolved in Absa Capital splitting away from the Group as a separate entity, changing to Absa Corporate and Investment Bank and rejoining with Absa Group as a business unit.

Very exciting times but not without its challenges. In 2012 Absa underwent a radical restructure of their IT business, which understandably reduced our team size, but in true BBD fashion we stuck around and kept a foot in the door.

Today we work in a variety of sectors, including Risk, Markets, Payments and Wealth. Thanks to an awesome team, we have built up a very good reputation in these areas as “the people who get things done”.

We are involved in the divestment of Barclays in Absa. This is a massive program and will kick off during the course of the year. Absa and BBD are excited by the prospects and thanks to a forward-thinking CIO, Absa are eagerly adopting newer technologies such as Cloud computing, Hadoop and Blockchain.

Freddie Venter
BBD ABSA TEAM





BBD
NEDBANK
TEAM

The humble beginnings of the BBD Nedbank account started about 30 years ago when we were just a couple of years old. One of the first contracts within Nedbank was signed in the early 90's with a small team of developers developing Capital Dealing Room software.

Today our team is a diverse one and supports a multiple of BBD developed production systems across Nedbank's Capital, CIB and Retail divisions. Some of these solutions are key critical enterprise business solutions that requires utmost banking IP, commitment and BBD specific skills to ensure a 'happy client'. An exciting fact is that some of our applications are older than some of our team members, proving that delivering working solutions to our customers is a treasured and strived for value in our team.

Beyond the operational aspects of software solutions, we have become a strategic partner to Nedbank assisting them in various aspects of banking not only in the IT space.

The team is committed, positive, knowledgeable, adaptable and delivery driven.

Interesting facts:

- Team members have earned various Nedbank recognition awards for projects well done
- We spend an average of +-8000 hrs p/m running mission critical systems for Nedbank
- An estimated 4000 hrs p/m on innovation and new applications
- A Dream box of technologies (ALGOL PASCAL, Delphi, IDL, VB, COBOL, C++, C#, ASP, COM+, Stoned, JavaScript, HTML5, Python, J2E, ORACLE, MS SQL, DB2) to name but a few.
- Recent big projects (GPS, FINSURV, Money Markets, Rewards)

A funny:

- I recently declined a Nedbank request when they assigned a IT ticket to me to change the light bulb in the ladies bathroom. This was no joke, but shows how they rely on us.

Nefius Maritz
BBD NEDBANK TEAM



BBD
TURFSPORT
TEAM



Turfsport has been a significant player in the betting industry for over 20 years. Their software is used by bookmakers (“bookies”) across Africa to provide a platform for gamblers (“punters”) to place bets on a wide variety of real-world events. The company has a rich history that dates back to 1983 with the development of its original DOS based application, and a technology refresh exercise in 2000 which gave birth to a Windows based app.

Turfsport first approached BBD in late 2015 to assist them with designing a new generation cloud based system. In order to keep licence costs down, Turfsport chose upfront to use as much Open-Source technologies as possible. Vendor lock-in was raised as a concern, so although AWS (Amazon Web Services) was chosen as the preferred development platform, no Amazon specific technologies could be used.

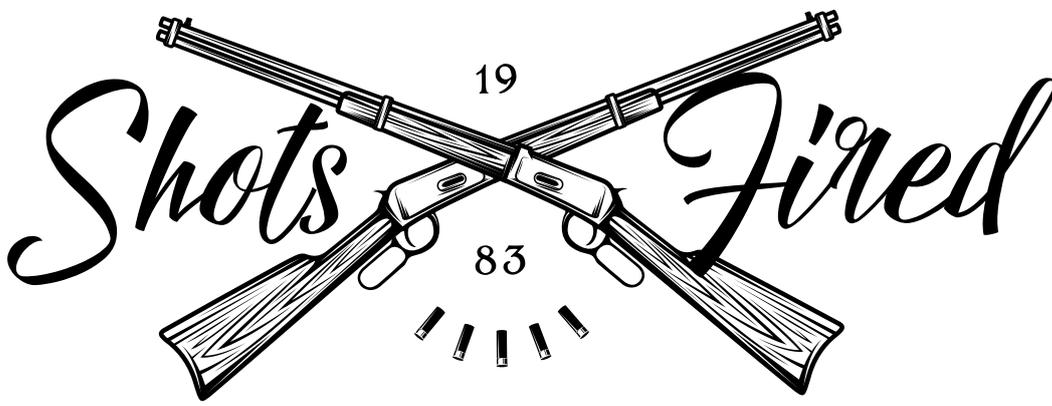
Finding a team in Cape Town with experience in the required range of technologies was initially a little challenging, so Werner Mostert and I temporarily relocated to Cape Town to help jump-start the process. We were joined by Dirk Gous and Sandile Diniso. With Rudolph Stander joining us in March. The team now consists of 5 BBD and 5 Turfsport specialists. Needless to say the initially unfamiliar tech stack posed no problem for this team.

The gambling industry is a fascinating one. For all intents and purposes it is a financial industry - there are JSE-like trading platforms, Forex & Treasury components, Risk Management and Reporting requirements, and KYC (“Know Your Customer”) systems. Bets can be placed on Horse Racing, Sporting Events, Lotto draws, and even real-world events such as the US election or the infamous Oscar Pistorius trial. Gambling is also a lucrative market - in 2015 gambling in Europe was estimated to be 94,2 Billion Euro with an annual growth of 9%.

In South Africa one of the newest wagering segments is “E-Sports” (betting on professional gamers competing on games such as StarCraft, Call of Duty, League of Legends etc). Internationally one of the fastest growing segments is “Virtual Sports”, where punters literally bet on virtual Horse or Greyhound Racing, virtual Basketball or Soccer, or even virtual MMA or Boxing events.

Dieter Rosch

BBD TURFSPOORT TEAM



When BBD organizes a team build, you just know that it is going to be action-packed. Cars, guns and general bad-assery were all on the itinerary. Recently, the BBD teams from Momentum and Discovery got together for a long overdue shot of adrenaline.

We started the day at The Edge Shooting Academy for target practice. Everyone had a blast, except for Frederick Tshimanga, who would give a little involuntary jump every time a shot was fired. We took turns firing a 9mm pistol as well as a 9mm carbine (rifle). After everyone had a turn, we compared the target sheets to see who shot the most flies. Fred must have gotten over his fear of guns, because he was one of the best shooters of the day!



We then all got into our cars and headed across the road to the Zwartkops Raceway where we got into much smaller, much more dangerous little vehicles. We split up into teams of 4 and took turns driving the go-karts. We ranged from very experienced drivers to people speeding into the pit stop at 60 km/h. We won't mention any names, Marriam Marede. To be fair though, she was nice enough to scoop another colleague into the go-kart and drop him off at the nearest wall. The team I was in overlapped 18 times, more times than any of the other teams – Just saying!

After all was shot and driven, we sat down for a wonderful lunch at the raceway. It was a hoot recounting all of the fun moments of the day.

Louis Strauss

BBD MOMENTUM &
DISCOVERY TEAM



「GROW
YOUR
MO」



Congratulations to **Matthew Ekron**, who was crowned **BBD Mr Movember - 2016**.
Thank you to all of those who participated. **Long live the STACHE;**



Last year BBD held a Movember competition, a month where all your male friends and co-workers show up clean-shaven and baby-faced on 1st November and look like western-movie villains or grizzly bears by 30th November.

All of our participants submitted a photo which were uploaded to our Movember microsite where the business could vote for the Stache' that impressed them the most and our winner, Matthew Ekron, received a beard grooming kit to care for his newly grown Stache'.





bbd SHAVATHON -2017-

WE SHAVED IT, SPRAYED IT... AND MADE A DIFFERENCE

In March 2017, BBD participated in the 14th annual CANSA Shavathon. The Cape Town office, armed with clippers and brightly coloured sprays eagerly kicked things off on Wednesday the 1st. The Pretoria office was hot on their heels sporting bright pink mohawks. The Joburg office did not disappoint with a queue that stretched out the door. Some asked for “cheesekop” others “just go wild” and some were happy to merely donate cash.

After participating in whatever form those people who so generously donated were treated to a scrumptious chicken prego or steers burger.

Collectively the people of BBD raised R5,011.00 in donations proving that we are just as passionate about supporting our community as we are about developing world class software. Motivated by the generosity, BBD decided to match all donations bringing the grand total to a whopping R10,022.00. Thank you to everyone who took some time out of their busy schedules to shave, spray and donate. Without you this wouldn't be possible.

Tommy Hawkins

BBD COMMS TEAM







THE P.F.C. OR DRESS UP

W With a team name of PFC, it was the perfect theme to celebrate the end of a very successful year. The team had to dress up as anything starting with the letters "P", "F", or "C". You can just imagine what some of the people came up with...DON'T GO THERE!

We all arrived at work dressed to the alphabet, much to the amusement and confusion of our fellow colleagues. Cocktails on arrival, shooters to get us in the mood (thanks G – NOT), yummy food and secret Santa gifts set the scene for a very much needed and deserved party.

We danced, swam (well some of us did), played beer pong and jenga well into the next morning! Kudo's to an awesome team...



The cute and cuddly
Cat



The soft and hardcore
Punk Rocker



A perfect little
Princess



Our beautiful bunch of
Flower Power



The psychobilly prossy
Punk



Pipe smoking, spinach filled
Popeye



Sexy Sandy D
Pink Lady



A-hoy the pretty
Pirate



Kanye van der Westhuizen
Pimp



The gorgeous ruler
Cleopatra



Our sultry sexy
Call Girl



BEER -VS- WINE

Beer VS Wine? What is your preference? Be it a well-deserved drink after work, an accompaniment to your favourite meal or your choice of beverage for a night out with the friends, it's always a difficult choice. Below we explore these two drinks to see how they match up to each other and to see what benefits these drinks offer when **consumed responsibly**.





Beer

Historians speculate that prehistoric nomads may have made beer from grain & water before learning to make bread. Beer became ingrained in the culture of civilisations with no significant viticulture.

Different grains were used in different cultures to produce beer: Africa used millet, maize and cassava. North America used persimmon although agave was used in Mexico. South America used corn whilst sweet potatoes were used in Brazil.

1. The nutritional value of beer exceeds that of wine. The values of protein, fibre and foliate, found in beer make it more like food.

2. Studies in mice showed that hops may inhibit obesity.

3. Germany's Commission E has approved hops to treat restlessness, anxiety, and sleep disturbances.

4. Nutrition found that especially hoppy beer can increase bone mineral density.



Wine

The pharaohs rose to power in Egypt and began making a wine-like substance from red grapes and due to its resemblance to blood, used it in ceremonies. During this time, the Egyptians came in contact with the Israelites as well as the Phoenicians. It was the Phoenicians who cultivated the wine and began to spread it around the world.

There are upwards of four thousand distinct grape varieties in the world. Some of these varietal names are easily recognisable: Chardonnay Cabernet Sauvignon and Merlot.

1. An average 150ml glass of red wine is just 125 calories.

2. One glass of red wine contains 187 mg of potassium, which is about 4 percent of your daily value.

3. One study found that small doses of resveratrol, found in red wine, can blunt the effects of aging.

4. Flavonoids found in wine may protect your skin from harmful UV rays, according to a Spanish study.



BEER

Rank / Country / Liters P/A

1 - China	49,2 bn
2 - USA	22,5 bn
3 - Brazil	14,0 bn
4 - Germany	9,5 bn

Top producing countries



WINE

Rank / Country / Litres P/A

1 - Italy	48,8 bn
2 - France	41,9 bn
3 - Spain	37,8 bn
4 - USA	22,5 bn

RDC down memory Lane



2015

2016



2014

2013

2012

2011

2010

I have been lucky enough to have built up a collection of BBD cycling shirts over the past 10 years. Yes, there are a couple missing... due to some unfortunate accidents on my MTB and the jerseys not surviving the consequences!

The 2014 edition of the BBD cycle shirts was used by Peter and Gus in the Sani2c as well as myself and Neville, when we completed the Sabie Extreme 3 day Staged MTB race.

For me most of these shirts were used to race the best road cycling event in Gauteng, the infamous 94.7 cycle challenge. Though the route has changed a number of times throughout the years, it has always been an exciting event supported by loads of spectators and more than a few BBD staff members riding through JHB streets.

“Life is like riding a bicycle. In order to keep your balance, you must keep moving” Albert Einstein.

Derek Dosthuizen
BBD PCS TEAM

“**RULE 5**
Harden the
f%#k up ”



Olympic Rowers

On 11 August 2016, rowing duo Lawrence Britain (25) and Shaun Keeling (29) made South Africa proud by winning a silver medal in the men's coxless pairs event at the Rio Olympics. While the medal is an achievement in itself, the story behind “the big race” and their training leading up to Rio is more inspiring than you may be aware. The pair came to Innosys last year to share their story.

At the second world cup in Switzerland, the duo had finished fourth, 0.2 seconds behind the second - and third-placed teams in an incredibly close race. Through their final preparations for Rio, they would constantly remind one another about the 0.2 and how they would never let it be that close again. So with 500m to go in the Rio final, Lawrence called to Shaun, “Point two, never again!”. Their passion and power got them that silver medal in the final stretch and it was amazing to watch the race with their commentary.

There are so many lessons for business from sport, especially at Olympic level. One example is Shaun who, as a 21-year-old, won Olympic bronze in Beijing. From there he failed to qualify for London in 2012 and then came back to win a silver in Rio with his partner Lawrence – who had cancer just over two years ago! They are a prime example of determination, passion, planning, commitment and focus – qualities which anyone can strive to apply in their personal lives.

Claire Wood
BBD INNOVATION TEAM





TECHtalks

TECHNOLOGY WORTH SPREADING

FUTURE TRANSPORT



► HYPERLOOP ONE

The **1200 kph** train



www.designboom.com/technology/big-hyperloop-one-dubai-abu-dhabi-video-bjarke-ingels-group-11-07-2016/

The Hyperloop is a concept proposed by billionaire inventor Elon Musk, CEO of the aerospace firm SpaceX. It is a reaction to the California High-Speed Rail system currently under development, a bullet train system that Musk feels is lackluster, as it will be one of the most expensive and slow-moving in the world. A one-way trip between San Francisco and Los Angeles on the Hyperloop is projected to take about 35 minutes.

Musk's Hyperloop consists of two massive tubes stretching between San Francisco and Los Angeles. Pods carrying passengers would travel through the tubes at speeds topping out over 700mph. Imagine the pneumatic tubes people in "The Jetsons" use to move around buildings but on a much bigger scale. For propulsion, magnetic accelerators will be planted along the length of the tube, propelling the pods forward. The tubes would house a low pressure environment, surrounding the pod with a cushion of air that permits the pod to move safely at such high speeds, like a puck gliding over an air hockey table. Given the tight quarters in the tube, pressure buildup in front of the pod could be a problem. The tube needs a system to keep air from building up in this way. Musk's design recommends an air compressor on the front of the pod that will move air from the front to the tail, keeping it aloft and preventing pressure building up due to air displacement. A one way trip on the Hyperloop is projected to take about 35 minutes (for comparison, traveling the same distance by car takes roughly six hours).

Why the need?

Conventional means of transportation (road, water, air and rail) tend to be expensive, slow and environmentally harmful. Road travel is particularly problematic, given carbon emissions and the fluctuating price of oil. As the environmental dangers of energy consumption continue to worsen, mass transit will be crucial in the years to come.

Rail travel is relatively energy efficient and offers the most environmentally friendly option but is too slow and expensive to be massively adopted. At distances less than 900 miles supersonic travel is unfeasible as most of the journey would be spent ascending and descending (the slowest parts of a flight.) Given these issues the Hyperloop aims to make a cost-effective, high speed transportation system for use at moderate distances. Its tubes would have solar panels installed on the roof, allowing for a clean and self-powering system.



SCAN FOR VIDEO

YouTube

Hyperloop One 11.8.16 teaser
www.hyperloop-one.com

HOVERSURF SCORPION 3

World's first **fully-manned** hoverbike



www.designboom.com/technology/hoversurf-scorpion-3-hoverbike-02-20-2017/

The Russian startup Hoversurf is making flying as easy as riding a bike. The ATaaS that's Air Transport as a Service company has just unveiled the first commercial hoverbike that the world has ever seen. The craft in question is the Scorpion-3 and is a fully-manned quadcopter that aims to make flying accessible to the masses. Hoversurf's Scorpion 3 hoverbike is designed to make flying accessible to both professional and amateur navigators.

The unique, electric-powered vessel combines a motorcycle seat with

quadcopter and drone technology, bringing speed agility and stability of flight to the hands of both amateur and professional class of navigators. Hoversurf has designed the craft to resemble a compact dirt bike in size and shape with its frame based on a motorcycle concept. The end product is a machine that more-or-less surfs through the air by changing altitude and direction.



SCAN FOR VIDEO

YouTube

Hoverbike Scorpion-3 TRAILER 2017
www.hoversurf.com



The "R" configuration of the Zero S is designed for riders who simply want to go faster and accelerate harder. Aply named on account of its performance and ability to dominate, the Zero SR features a larger 660amp motor controller that provides 25% more power and 56% more torque. To accommodate the increased power, the Zero SR motor uses higher temperature magnets to ensure better performance during extended durations at higher speeds. Capable of doing 0-100km/h in under 4 seconds with a top speed of over 100mph using direct drive, the Zero SR offers spirited riders an edge in competitive riding. The only motorcycle in the lineup

available in red, the tank section of the motorcycle is highlighted with a sophisticated "Zero SR" emblem and the tail section features the motor controller with a bold and elegantly designed heat sink

RANGE-----243 km
 TOP SPEED-----170 kh/h
 0-100-----3.3 sec
 CHARGE TIME
 (with accessory)----2.4 hr

ZERO SR

High power **electric** motorbike



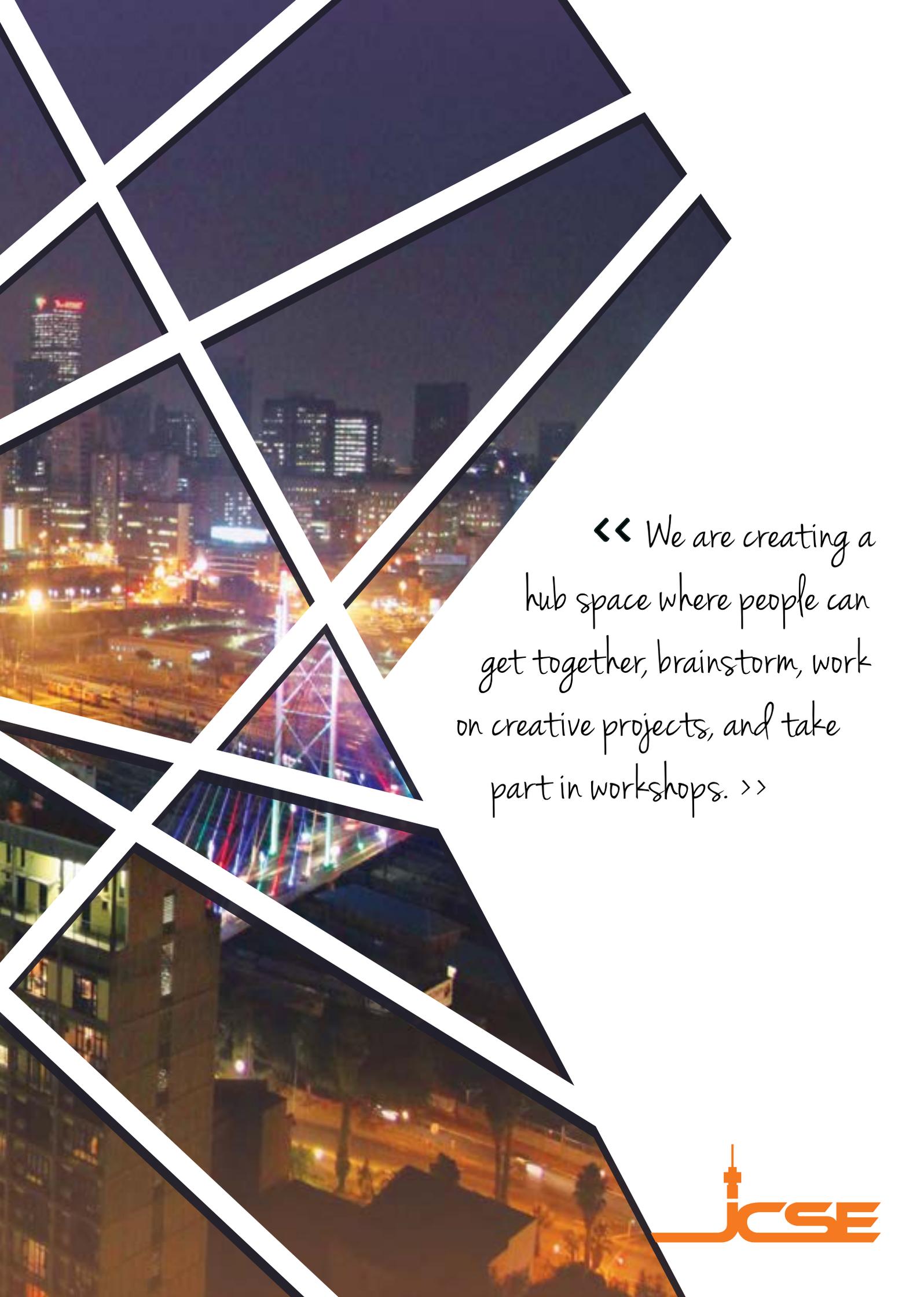
www.zeromotorcycles.co.za/?page_id=11



SCAN FOR VIDEO

YouTube

2017 Zero Motorcycles - Action Highlights
www.zeromotorcycles.co.za



« We are creating a hub space where people can get together, brainstorm, work on creative projects, and take part in workshops. »

The TSHIMOLOGONG Precinct

digital innovation

Peter Scheffel and Tony vd Linden attended the latest launch of the Tshimologong Precinct's 'Digital Technology Zone', a new-age software skills and innovation hub that has now extensively refurbished 5 rows of buildings in Braamfontein. Appropriately, tshimologong is the seTswana word for 'new beginnings' and this precinct is part of an ambitious ICT cluster development programme that has swung into action, infusing Jhb with a hive of skills training, job creation, enterprise development activities and Hackathon challenges.

This dynamic development is the brain child of Prof Barry Dwolatzky, director of the Joburg Centre for Software Engineering (JCSE) at Wits University. "We are creating a hub space where people can get together, brainstorm and work on creative projects, and take part in workshops. Tshimologong will be a start-up incubator and source of skills," says Prof Dwolatzky. He envisions 24/7 activity in the new precinct, with courses running day and night, as well as hubs where ideas are hatched and creativity has a space to breathe. Plans include formal and informal membership-based groups where likeminded and creative techies can connect, take courses, locate tutors & advisors, and access wifi zones & hot desks. He sees specialised forums and conferences taking place, as well as video evenings, career fairs and master classes.

Growing jobs through high-tech startups and skills development has always been crucial to BBD. We have invested in becoming a long term "Founding Partner", as we recognise and believe in the vision and implementation of this ambitious Tshimologong Precinct concept. In 2014 we sponsored R 250,000.00 with the aim to assist in the creation of this attractive and vibrant Digital Technology Hub in hope to change the lives of millions through the age of rapid innovation, support skills development, job creation, entrepreneurship and the rejuvenation of Johannesburg's inner city.

To find out more visit www.tshimologong.joburg

Kiara Smith
BBD COMMS TEAM



Day in the life

Naomi Phokobye

Why did you choose BBD?

I chose BBD for the casual type of culture and encouragement of their employees career development. I don't like being stagnant and formal.

How long have you been at BBD and what are you responsible for?

I have been with BBD for one year and four months. I am responsible for HR administration.

What is your favourite aspect of your job and what do you find the most challenging?

My favourite aspect of the job is getting to work with different personalities and having an opportunity to learn something new every day.

The most challenging part has to be chasing people for information - like calling someone a 100 times to complete their assessment only to find out they got another offer elsewhere.

How do you like to spend your weekends?

I like to go out a lot, be it an adventure or just a chilled outing.

Do you have any hobbies or extra mural activities?

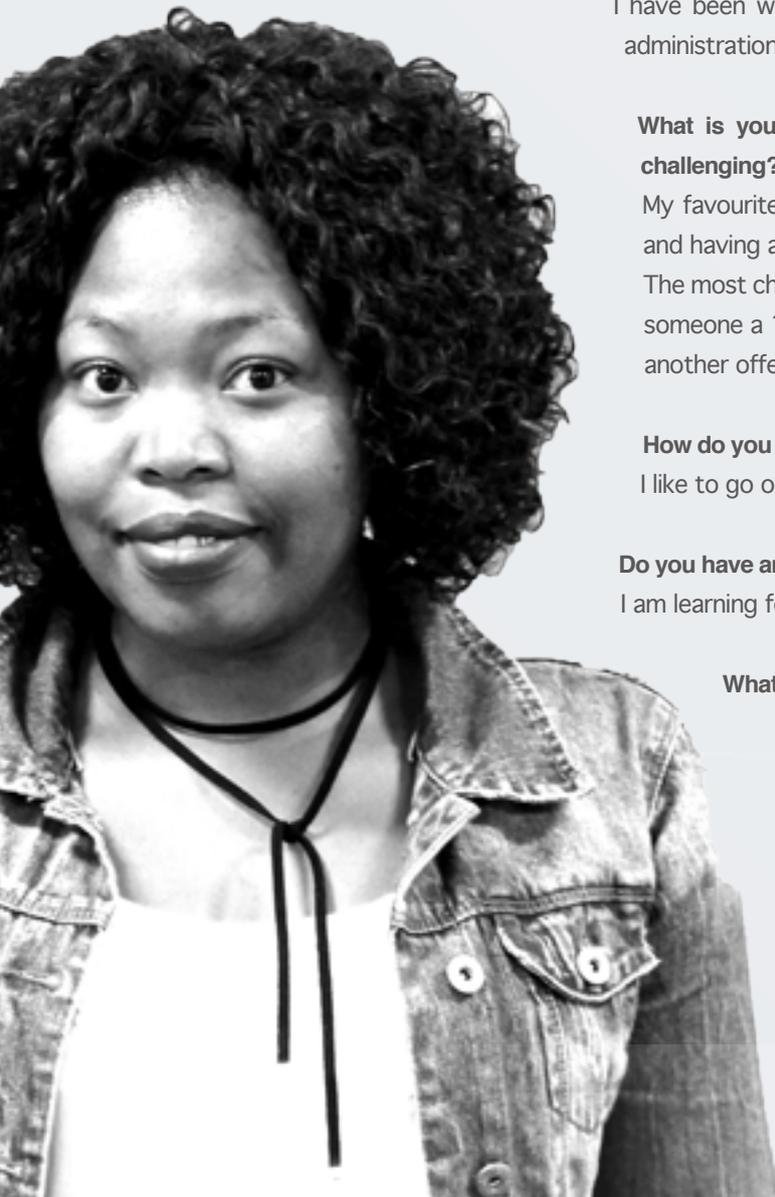
I am learning forex trading.

What is your favourite music, food, movies, series etc?

Music - I like anything that sounds good

Movie - 50 Shades of Grey

Food - Anything, except seafood



Russell Davidson

Why did you choose BBD?

To be able to work with people who were considered the best in the industry.

How long have you been at BBD and what are you responsible for?

When I joined BBD there were only 6 of us. As a director of the company I am responsible for defining the company strategy (along with the other directors) and making sure that the company is operationally aligned with the strategy. I am directly responsible for BBD India as a company and its operations, although I have delegated some of those duties to Francois and Maryke, who are living in India for a year. As an operational exec I am, from time to time, responsible for operating certain client accounts in the past these have included Nashua Mobile, Vodacom and Acturis amongst others. As a fire fighter, I am often called in to help projects in distress or systems that are down which sounds glamorous however, people typically only realise they need to call for help at 2am.

What is your favourite aspect of your job and what do you find the most challenging?

I love fighting fires, but I guess my favourite aspect is mentoring others so that they can grow and achieve their potential.

How do you like to spend your weekends?

A typical weekend includes a hike, a couple of hours of wall climbing, watching sport, braaing for dinner and a couple of beers.

Do you have any hobbies or extra mural activities?

Climbing and mountaineering, I'm a scuba diving evangelist, studying physics and mathematics and of course driving fast cars on race tracks.

What is your favourite music, food, movies, series etc?

Music all sorts but my favourite genre is Heavy Rock, think Led Zeppelin, ACDC, Black Sabbath, Pink Floyd (although I think they are in a genre all of their own)

Favourite Food: bread, of all types, which includes pizza. Some say one beer is half a loaf of bread...

I don't really watch TV series unless top gear counts, before they fired the good guys cause Evans is crap.

If you won the lottery what is the first thing you would do?

Depends on which lottery, if it's Zimbabwe then keep on working.





NEW KIDS ON THE BLOCK Mamelolo

How did you join BBD's graduate Program?

I found out about BBD on my final year project day, where I was offered an opportunity to join the BBD family.

Why did you study software development?

In software development you are given a chance to be creative, you get to develop new functionalities that didn't exist before. It provides a collaborative environment where you get to work with your colleagues to solve problems and discuss requirements with testers, business analysts and the customer. Software development is one of the career that offers job security. In the future most jobs will be automated however developers cannot be replaced as developers are required to develop software for them. How nice is that!

What course did you study and where?

I studied BSc IT and BSc (Hons) CS at the University of Pretoria. This exposed me to different programming languages as well as a variety of computer science concepts such as digital forensics, software architecture, mobile computing, etc.

What was the first project you were given at BBD?

I am based at Vodacom maintaining a Vodacom legacy system.

Where did you see yourself in 3-6 years?

Having advanced knowledge of programming skills, have graduated with a master's degree, being a role model to South African youth and most importantly uplifting the community.

What was the first impression of BBD?

A very fun company where you're always given the opportunity to advance your skills and learn every day from the project you work on.



Iddo-Imri

How did you join BBD's graduate Program?

I was just done studying and doing the job hunting thing as any graduate does and BBD happened to be one of the interviews my agent lined up for me.

On arrival for the interview, I was not aware of the graduate programme, but simply just looking for a job.

Why did you study software development?

As a child I was fascinated and intrigued by computers, but I got hooked on the idea of developing software when I played my first computer game and dreamed of developing my own games one day (still do).

What course did you study and where?

MSc in Computer Science and Information Systems at North West University - Potchefstroom Campus

What was the first project you were given at BBD?

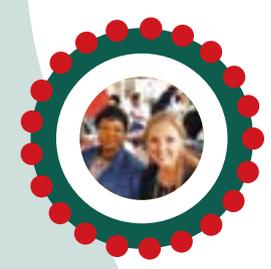
I started out on the SARS project on the prod support team where I am still currently located.

Where did you see yourself in 3-6 years?

Well versed in my area of expertise and most definitely in a management position of some sorts.

What was the first impression of BBD?

I was impressed by the culture where BBD strives to be a corporate giant while still emphasizing the value of its employees where they are viewed as more than just resources.



BONG BASH

INSURE GROUP YEAR END

BBD's IG Team was invited to Insure Group's year-end function held at their offices comprising of a relaxed modern African ambiance.

On arrival, each chair was draped with a drum – the ecstatic mood was fueled by a drumming group called "Friendly Drummers". We were divided into teams and taken through drumming activities whilst the avid dancers tapped to the beat with a dance of their own.

Fun was had by all with good music, food and dancing that even the looming rain clouds couldn't put a damper on the day.

Jonase Phofu
BBD INSURE TEAM



GAME ON

Keeping you updated with all the news, reviews and insight into some of the best games out there!!

VIRTUAL REALITY HACKATHON

The video game industry started in the 1970's when the first TV games were invented. Over the years the complexity, graphics and audio quality of these games greatly improved, but games were still two dimensional until the 90's. However, it is only in the last decade that video games and simulations started to look realistic due to the recently invented 3D hardware. In 2016 the video game industry saw revenue of at least \$100 billion and is currently growing faster than the music or film industries.

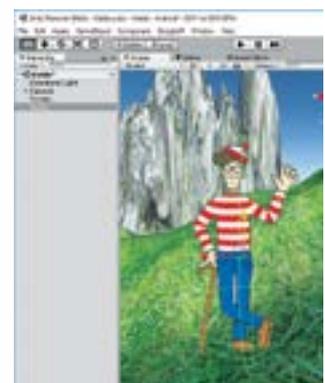
Now that we have 3D graphics, what is the next level of this emerging industry? **Virtual Reality!**

BBD sponsored the first Virtual Reality Hackathon at the Jozi JUG. Every participant at the event received a free card-board (a virtual reality headset made from carton and plastic lenses) which uses a mobile phone to render video and audio. Our task was to build a "Finding Waldo" app where the user gazed around in a virtual world to try spot Waldo.

I decided to use Unity for this task because it is a great platform that includes many tools to rapidly set up a virtual world. I had also recorded Waldo's voice (in the bathroom where it is mostly quiet) and took advantage of 3D spacial audio to lead the player through the virtual world to Waldo. This project won me a Galaxy S7 and a Gear VR headset.

If you did not attend this event, you definitely missed out!

Caspar Schutte
BBD STD BANK TEAM



MAGIC THE GATHERING



It's looking grim. The enemy red mage has summoned a horde of goblins and a huge dragon to boot. The red mage senses victory as he passes the turn. You untap and draw a card. A faint smile crosses your face as you tap your mana... "Wrath of God"... destroy all creatures. The red mage head drops, as he is forced to put all his creatures into the graveyard.

Magic The Gathering was published way back in 1993 and the first trading card game produced, with approximately twenty million players as of 2016. You play the role of a mage, also known as a planeswalker. Your goal is to construct a power deck using a wide selection of spells, creatures and artifacts to defeat your opponent.

Spells are represented in five colors, each with a distinct play style.

White is the color of order, righteousness, healing and light. White will typically make hordes of little soldiers and use powerful defense magic to protect them and make them grow stronger.

Blue is the color of intellect, illusion, manipulation and trickery. Playing Blue is like playing chess, you need to out think your opponent, counter their spells and react appropriately.

Black is the color of power, death and sacrifice. Black will gladly sacrifice their own creatures to win. Since their creatures are mostly zombies, they seldom stay dead.

Red is the color of chaos, fury and fire. Red will attack relentlessly until they get you to the brink of death, then send a fireball to your face.

Green is the color of life, nature and huge beasts. Green has some of the biggest creatures in magic. Green might sometimes start off slow, but before you can blink they will dominate the battlefield.

Wynand Van Zyl
BBD NEDBANK TEAM

So if you want to get involved in Magic, get yourself an intro deck and join the South African Magic Community on Facebook, we will get you up and running in no time.

WARHAMMER 40K

Warhammer 40K is a table top war simulator based in the 41st millennium. The game is normally played between 2 people, each with their own faction of choice, dice, measuring tape in inches and rule books.

There are 2 rule books each player needs in order to play the game correctly. One of the rule books is the faction hand book, inside this book there is a list of the units available to the faction and how much each one costs, defined in points. The other rule book is the core rule book, which defines how the game is played.

Before the start of each match, the players will get together and agree on a point allowance for the match. Following this, each player will build his respective army,

setup the table which is a 72" diagonal board. On this table they will place terrain which will behave as cover for the units moving around the board. Once both players are happy with the terrain, they will roll one dice each, with the player who rolls highest getting the choice to go first. They then begin laying out their own armies. once complete, players begin taking turns starting with the first player. They move their armies around the board, attacking each other's forces and capturing objects on the board. When the game is complete, players calculate points based on which of the opponent's squads they have destroyed and who has claimed and held more objectives. The player with the highest points is declared the winner.

Aaron Jones
BBD ACTURIS TEAM



ROBOCODE



Robocode is an open source educational game started by Mathew Nelson. The game is designed to help people learn to program in Java and .Net and enjoy the experience. It is very easy to start - a simple robot can be written in just a few minutes - but perfecting a bot can take months or more.

THE GAME

Competitors write software that controls a miniature tank that fights other identically-built (but differently programmed) tanks in a playing field. Robots move, shoot at each other, scan for each other and hit the walls (or other robots) if they aren't careful. Though the idea of this "game" may seem simple, the actual strategy needed to win is not. Good robots can have thousands of lines in their code dedicated to strategy. Some of the more successful robots use techniques such as statistical analysis and attempts at neural networks in their designs.

One can test a robot against many other competitors by downloading their bytecode, so design competition is fierce. Robocode provides a Sandbox (security) (bots are restricted in what they can do on the machine they run on), which makes internet redistribution safe..

Robocode competition is all about two things:

1. Avoid getting hit too much (Movement)
2. Try to predict where the opponent(s) will move and hit them as much as possible (Targeting)

TECHNIQUES

Many sophisticated techniques have emerged. In particular, many top bots utilize:

Wave Surfing - Adapting your movement and trying to avoid getting hit the same way twice.

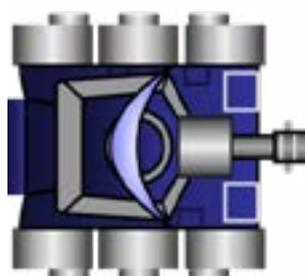
Statistical Targeting - Collect data that describes the targeting situation together with what would have been the correct decision for each situation. Use this data to make targeting decisions.

Guess Factor Targeting - The best known form of Statistical Targeting where the stats for enemy robots are each contained inside one number (the "GuessFactor").

Pattern Matching - Tries to match patterns of observed behaviour with previously observed patterns, and make decisions on targeting based around that.

ROBORUMBLE@HOME

The main active competition is the RoboRumble@Home, a continuous league based on distributed computation in a similar way to SETI@Home. The RR@H features leagues for 1-on-1, melee (free for all with more than two bots) and teams.



ROBOCODE SAMPLE STRATEGIES

Several sample robots are included in Robocode to help the beginners get started. They demonstrate various basic techniques used in coding robots, from Event-driven programming to writing out data to files for use later.

Review Tasks:

- Movement: How does the robot move? Does it have an avoidance or following strategy?
- Targeting: How does it find a target to fire?
- Firing: What is its criteria for firing?

WALL

Movement - This robot moves around the perimeter of the wall in a clockwise manner. It does this by turning left and by going ahead to the wall it is facing. It has an avoiding strategy which moves the robot back if the enemy who shot it is in front and ahead if it's behind.

Targeting - Its targeting mechanism is very basic that it uses the game's call to scan which does it automatically whenever the robot moves or turns its body/gun/radar.

Firing - It also has a very basic firing system where it fires at an enemy whenever it scans an enemy robot.

RAMFIRE

Movement - This robot searches for an enemy and ram it then when it hits its enemy if fires a bullet with power that depends on the enemy's energy. It does this by relying on the enemy's bearing which in turn determines how the robot turns in which direction. It has no avoidance technique since its primary objective is ram enemies for bonus points.

Targeting - Its targeting is dependent on how the robot moves when it changes it's direction.

Firing - The robots firing mechanism depends on the enemy's energy points. It fires a low power bullet if the energy level is low. The robot's purpose seems to use ramming as primary technique instead of firing bullets.

SPINBOT

Movement - This robot moves in a circle and fires an enemy when in range. Its avoidance strategy is its circular movement.

Targeting - Its targeting mechanism is pretty basic, it fires whenever it scans an enemy.

Firing - Since its targeting is basic, this robot fires a bullet with a power of 3.

CRAZY

Movement - This robot's movement just like its name suggest is crazy. Its erratic behaviour resembles a chicken with its head cut-off. It has a set amount of pixel movement and changes direction each turn. It changes reverses direction whenever it hits a wall or another robot and then returns to its original behaviour. Its erratic behaviour is its avoidance strategy and consequently does not follow any following strategy.

Targeting - Considering its crazy moves, the targeting mechanism lacks the same extremity, it just follows the gun's heading.

Firing - This robot does not have any criteria for firing. It just fires when an enemy is scanned.

FIRE

Movement - This robot mostly sits still and only moves when it is hit. It moves back and forth whenever it gets hit each time. Its avoidance strategy is useless if not close to nothing since it only moves so that it never gets hit in the same place twice consecutively.

Targeting - Its targeting system is basic. It relies on the gun's turning as a way to scan for enemies.

Firing - Its firing criteria is to shoot the enemy with a high powered bullet if it's target is close and lower powered bullet when near.

SITTINGDUCK

Movement - This robot does nothing therefore there is no avoidance or following strategy.

Targeting - It does not find a target.

Firing - And does not fire.

CORNERS

Movement - This robot moves to the top left corner and just stays there. It changes corner for the next round whenever it dies.

Targeting - Its targeting system is average since it first checks to see if there is a robot in it's path and if there is starts it's custom firing method. It also only scans a 90 degrees radius that is adjusted depending on the corner. This however could be a potential flaw that limits the robot's firing range since it stops and fires at an enemy before it even gets to it's corner.

Firing - This robot's firing criteria is to use a bullet power relative to the enemy target's distance.

TRACKER

Movement -This robot's following strategy is to close in at a chosen target and moves within 100 pixels of that target and fires. It moves back a little if gets too close.

Targeting - Since the robot's strategy is to follow a chosen target and gets close enough to fire, its targeting depends on the gun's turning.

Firing - This robot doesn't have any special criteria. It mainly shoots a higher powered bullet whenever it gets close to an enemy.

<http://robocode.sourceforge.net/>

Rory Freddy
BBD ATC TEAM

DUNGEONS & DRAGONS

D&D is a tabletop roleplaying system that has gained increasing popularity in the last few years, especially with expanding geek culture and the introduction of shows like Critical Role, where famous voice actors get together and explore a fantasy world.

So what is a tabletop roleplaying system you may ask? It's exactly that. You create a character with its own race, class, attributes, alignment and personality, all ordered on a character sheet. Then you get together and play with friends, all with their own characters, using special multi-sided dice and your imagination, around a table. The task of roleplaying your character might seem daunting at first, but you'll start finding it easier as you go along. It's also completely up to you as to how much you want to roleplay.

The players and their characters are introduced into a world by the **Dungeon Master**. It's his job to not only create a world and fill

it with people and places to explore, but to guide the group on an epic adventure or at least try to. Since the players have free will and don't know what the **DM** might be plotting, he can script them to go left behind the scenes and they might all decide to go right. This leads to some interesting stories and encounters that can transform a party into heroes or have some severe consequences. You quest together, laugh, fight & possibly die together or just cause chaos everywhere you go. It's all up to you, the **DM** and how well you roll of course.

Everything you need to start can be found online via free resources or by purchasing the official **D&D** handbooks. I'd recommend seeing what it's about, you might just end up with a new hobby.

Antoinette Henn

BBD ACTURIS TEAM





BBD donation stats

Number of donations for 2016 - 80 pints
 80 pints can save 240 lives

Donation goal for 2017 - 100 pints
 100 pints can save 300 lives



A FRIENDLY

REMINDER TO

It's easy to forget to stretch. It's often overlooked because the results are not as visible as lifting weights and squatting or so you thought. Stretching can lead to better posture, fewer aches & pains and greater confidence. Stretching keeps the muscles flexible, strong and healthy. We need that flexibility to maintain a range of motion in the joints. Without it, the muscles shorten and become tight. Below are 12 different exercises that you can perform sitting or standing at your desk.



GET OFF YOUR BOTTOM

1 **BACK EXTENSION**



Repeat 3 times, 5 seconds each

2 **NECK FORWARD**



Do once for 15 seconds

3 **NECK LEFT & RIGHT**



Repeat 3 times, 5 seconds each

4 **ELBOW PULLOVER**



Repeat 3 times 5 seconds each, both sides

5 **SHOULDER OVER**



Do once for 15 seconds on each side

6 **SHOULDER ACROSS**



Do once for 15 seconds with each arm

7 **FOREARM & TWIST**



Do once for 15 seconds with each arm

8 **BRIDGE STRETCH**



Do once for 2 seconds

9 **SHOULDER BACK**



Do once for 15 seconds each way, both arms

10 **HAMSTRING STRETCH**



Do once for 15 seconds with each leg

11 **CALF STRETCH**



Do once for 15 seconds with each leg

12 **QUAD & FLEX STRETCH**



Do once for 15 seconds with each leg

Chef

SEAN



Time for Italian food!

Beef

is a complete source of protein and provides many of the essential fatty acids, vitamins and minerals that humans need.



Tomato

are an excellent source of Vitamin C, Biotin, Molybdenum and Vitamin K. They are a very good source of Copper, Potassium, Manganese, dietary fiber, Vitamin A, Vitamin B6, Folate, Niacin, Vitamin E and Phosphorus.



Garlic

contains a sulfur compound called Allicin which is believed to have many health benefits. It's low in calories and very rich in Vitamin C, Vitamin B6 and Manganese.



The recipe for:

BEEF CANNELLONI

WITH HOME MADE PASTA

Ingredients

PASTA

- > 300g all-purpose flour
- > 100g Semolina
- > ½ tsp olive oil
- > 4 eggs
- > Pinch of salt
- > ⅓ cup water

BEEF CANNELLONI

- > 500g beef mince
- > 1 large onion in half
- > 2 tsp. Worcestershire sauce
- > 1 can Italian tomato puree
- > 3 cans Italian tomatoes
- > 4 tbsp. Parmesan cheese
- > 6 leaves freshly chopped basil
- > 10 stalks fresh thyme, chopped
- > 2 small sticks of celery
- > 6 cloves garlic chopped finely
- > 6 tbsp. olive oil
- > ¼ cup good red wine
- > ¼ cup water
- > Salt & pepper to taste

Method

HOME MADE PASTA

1. Place the flour, semolina and salt into a large bowl and mix together thoroughly and then take a spoon and make a 'well' in the middle of the dry mix and add the eggs and the oil
2. With the spoon, fold the dry mix into the oil and egg centre until it becomes soft and flaky and remove the mixture and place onto a lightly flour-covered surface.
3. Fold and press the mixture until you have reached a doughy consistency (you can add water if the mixture is dry or add flour if it is too thin)
4. Roll the pasta into a ball, cover with cling wrap and place into the fridge (this is good for a few days and can also be easily frozen for future use!)

HOME MADE PASTA

5. Add half of the oil to a pan on medium to high heat, dice half of the onion and half of the garlic and add to the heated oil along with the basil and mix through.
6. Once the onion has become translucent, add the tomato puree, tomatoes and celery, stir and slowly bring to a boil
7. Once the mixture is boiling, lower the heat to a simmer to slowly thicken the sauce and stir every 5 minutes, adding salt and pepper to taste

BEEF CANNELLONI

8. In a skillet, add the remainder of the oil on a medium-high heat and then add the remainder of the onion, garlic and thyme and mix through. Once the onion is translucent, add in the mince and mix thoroughly, cook the mince for 8 mins
9. Now take half of the pasta sauce and add it to the mince along with the Worcestershire sauce, mix and simmer for a further 10 mins. Turn the heat to low and add some water and the wine and simmer for a further 8-10 minutes. Turn the heat off and cover and pre-heat the oven to 190°C
10. Remove the pasta dough from the fridge and roll out into roughly 15cm x 15cm thin squares on a lightly floured surface and then fill a large pot approx. halfway with water, add a pinch of salt and bring to the boil
11. Place the pasta into the pot and cook until soft, approx. 6-8 mins. While the pasta is cooking, add half of the remainder of the Pasta Sauce to a large oven dish and spread evenly along the bottom
12. Once the pasta is soft, remove the squares from the pot with a large straining spoon and place into a colander to strain excess water. Place the pasta squares 1 at a time onto a flat surface and add roughly 3 tbsp. of the mince mix along the edge-side
13. Roll the Cannelloni and place next to one another in the oven dish on top of the pasta sauce. Once all the Cannelloni is added to the oven dish, cover with the remainder of the Pasta Sauce and cover the oven dish with tin foil. Place into the oven for approx. 25-30 mins
14. Take the dish out the oven and remove the tin foil, cover the pasta with the parmesan cheese and place back into the oven for a further 20-25 mins. Remove the Cannelloni and serve with fresh Italian bread, salad and good red wine!



Tear here to add
this recipe to
your collection



GUILTY *Pleasures*

CHOCOLATE LASAGNE

Ingredients

- 1 large box of Oreo cookies (36 cookies)
- 6 tbsp. butter, melted
- 230g cream cheese, softened
- ¼ cup granulated sugar
- 2 tbsp. cold milk
- 340g tub Cool Whip
- 2 boxes Chocolate Instant Pudding
- 3 ¼ cups cold milk
- 1 ½ cups mini chocolate chips

Method

1. Place 36 Oreo cookies in a large ziplock bag and crush them with a rolling pin until they have turned into fine crumbs.
2. Put the Oreo crumbs into a large bowl and stir in the melted butter. Transfer the mixture to a 23 x 35 cm baking dish.
3. Press the crumbs onto the bottom of the pan. Place the pan in the refrigerator while you work on the additional layers.
4. Mix the cream cheese until light and fluffy. Add in 2 tbsp. of milk and ¼ cup of sugar, mix well.
5. Stir in 240g of the Cool Whip and spread this mixture over the crust from the fridge.
6. Combine the 2 boxes of chocolate instant pudding with 3 ¼ cups cold milk. Whisk for several minutes until the pudding starts to thicken. Use a spatula to spread the mixture over the previous cream cheese layer. Allow the dessert to set for about 5 minutes so that the pudding can firm up.
7. Spread the remaining 100g Cool Whip over the top. Sprinkle mini chocolate chips evenly over the top.
8. Place in the freezer for 1 hour or the refrigerator for 4 hours before serving.



*Easy, yummy
and fun!*

Tear here to add this
recipe to your collection



PET BEARDING

WINNER



**CONGRATULATIONS TO
OUR WINNER, TANYA JENNINGS!!**



Prize: 3Doodler



COCKY

CORNER

LUCKY DRAW

**JURA IMPRESSA
CLASSIC AUTOMATIC
ESPRESSO**



**RORY
PREDDY**

**MINETTE
SMIT**

**CLEMENT
KHAUTA**



REVELL NANO QUAD

WIN!!



ENTER BY
15TH
JULY

Complete the quiz &
send your answers to
communications@bbd.co.za

BUT DID YOU KNOW?

1. What is the core responsibility of the ATC team?
2. Which sport teams do BBD sponsor as part of our benefits?
3. Which platform did the BBD Selpal team adopt for their project?
4. By when is your mannequin challenge to be submitted by?
5. Who won the Movember challenge?
6. For how long did the BBD SARS team zipline?
7. What is name of the building which the BBD India offices have relocated to?

A red panda is an animal native to the Himalayas and southwestern China. The English word for red panda is 'Firefox' which is where the browser gets its name from – so the Firefox logo is actually a red panda, not a fox!

The very first Apple logo featured Sir Isaac Newton sitting underneath a tree, with an apple about to hit his head.

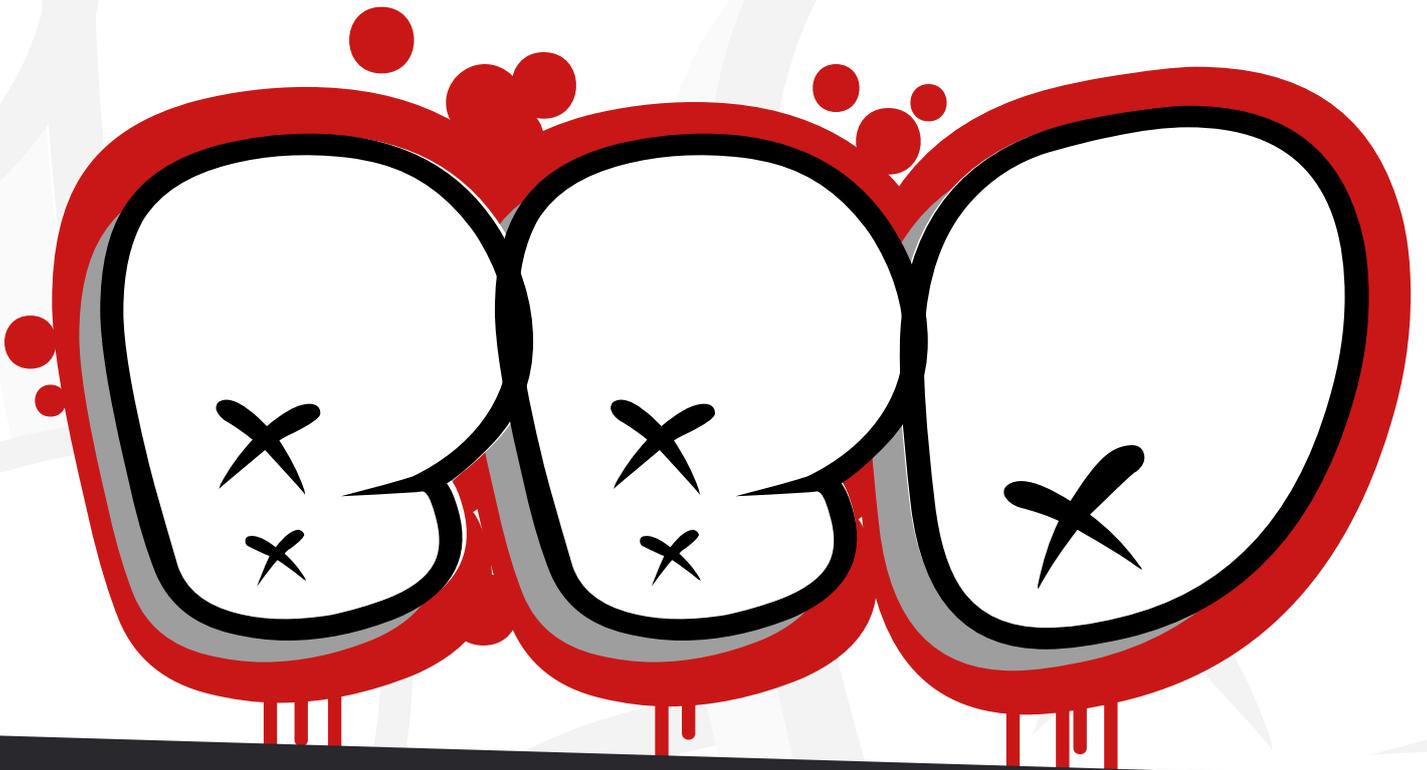
Google rents out goats from a company called California Grazing to help cut down the amount of weeds and brush at Google HQ!

The creators of the PNG file format wanted it to be pronounced as 'ping'

1 Petabyte can hold 13.3 years of HD-TV video.

Bill Gates' house was designed using a Macintosh Computer.





SOFTWARE DEVELOPMENT

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