Dear All,

Not only do we welcome the New Year, we are all excited to be back for a new school term! Let us all take a walk down memory lane to see what went on in the past year. There were definitely exciting and fun moments for everyone here at the School of Information Systems! And from all of us, there are certainly many more events in store for you in this upcoming year!

SMU Information Systems Society (SISS) not only has a series of flagship events prepared for all of you, we have also lined up many opportunities in the areas of professional development, such as networking events, so do keep a lookout for the EDMs coming your way! What is great and sets us apart at the School of Information Systems is the undeniable family spirit that has long been a culture here. From strangers to families, you would find great inner strength and motivation to carry on, even in the bad times! Start embracing the numerous opportunities available and continue carrying the torch to incultate the family spirit!

In this issue of PRISM, let us not only relieve what SIS has gone through in the past year, but also celebrate with the great achievements that members of our SIS family has reached! Moving forward, we hope to continue building this strong SIS community and share such moments with the rest of the family, our SIS family!

EUSTACE ZHENG
PROFESSIONAL DEVELOPMENT DIRECTOR
SMU INFORMATION SYSTEMS SOCIETY (SISS)
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SMU INFORMATION SYSTEMS SOCIETY
12TH MANAGEMENT COMMITTEE
MetamorphoSIS (or Meta, for short) is a camp held for the freshmen of SMU School of Information Systems (SIS). The 3-day camp allow freshmen to be immersed in the close-knit, fun-loving and fast-paced SIS culture through countless activities organised from beach games, performances to late-night talks over supper.

One of Meta’s most-loved activities is ‘Tower Defense’: an intense and exhilarating water bomb fight involving over 250 participants and over 9000 water bombs. During Meta’15, each clan took turns parading whilst protecting its clan head from getting wet as thousands of water bombs came bombarding from all sides by the rival clans. The preparation involved many hours and many hands but the short, action-packed 30 minutes of taking countless hits or attacking the other clans definitely made it all worthwhile.

Another highlight of Meta was the Finale Night — a night filled with performances by SIS seniors, facilitators and freshmen. The facilitators rehearsed bi-weekly for many months leading to the camp. Our incoming freshmen, not to be outdone, dedicated a lot of effort and displayed amazing talent despite only a couple of days (or more aptly, late nights) of practice. It was heartwarming to see them put up such a captivating show and the dynamics within each clan on the last day made us certain that these friendships among our juniors would last much longer than the camp.

Without a doubt, the months of planning leading up to the camp were challenging. My team had dedicated a large part of their summer into planning the camp. This ensured that the minute details have been given thorough consideration. My committee brought the theme Gods and Kings alive through the videos, props and even, name tents. We created a website with live updates and experimented with fresh ideas for the games and activities. Apart from my team, we had a lot of help from the SIS community such as the seniors who organised Meta’14 and our friendly and helpful staff.

By: AMOS TAN WEI JIE

“To the incoming freshmen of 2016, I strongly encourage you to come for the camp as you’ll get to know the amazing family you’ll be spending 4 years with (and probably, some nights too). Your seniors will certainly give their best in running MetamorphoSIS’16 and we all do hope to see you there!”
The SIS Speed Networking 2015 was a professional development event organised specially for SIS students, done in the “speed dating” format. Students were put into groups of five to six, and the groups took turns rotating through booths set up by companies, spending seven minutes per booth. At each booth, students and potential employers got the chance to find out more about one another, and exchange resume/contact information. To cap off the event, students and potential employers got to mingle over refreshments. The participating companies included Accenture, Ernst & Young, Palantir, Singapore Airlines, The Stakeholder Company, United Overseas Bank, Visa Singapore, and the Housing Development Board.

As the Academic Director of the SMU Information Systems Society (SII) 11th Management Committee, my responsibility in terms of the professional development of SIS students was to ensure that they get the internship and career opportunities that they deserved.

The Dato' Kho Hui Meng Career Centre (DKHMCC) has highlighted that SIS students’ participation rate for career talks, networking sessions, and information sessions were low. Such events usually involved only one company, and students had to attend multiple ones to find out about more companies. Consequently, SII, together with Ms Wong Soo Mei and team from DKHMCC, came to an understanding that SIS students had a high curriculum workload, but were still interested in a wide array of industries/companies. Hence, we came up with this idea of speed networking – students could attend just one session, but find out about multiple industries/companies in one swoop. It was meant to be an efficient event.

The participation rate for this event was overwhelming, and there were even students that had to be put on a waiting list. The feedback from students and potential employers all pointed to a very well-received session – potential employers found students they were looking for, and students found internships/careers they were interested in.

Ultimately, our goal of providing opportunities for busy SIS students was achieved, and I sincerely urge for all current and prospective students to embrace such opportunities and secure a good network upon graduation!
SIS Day started out as an annual occasion to celebrate the anniversary of our school - the School of Information Systems. For 2015, our management committee decided to centralize our event around a theme to give it a unique flavour and to differentiate it from our predecessors’ SIS Day. We decided to focus on “Uniquely SIS” for 2015’s SIS Day. To shed some contextual light, SIS, being a school with a relatively small cohort (compared to the other schools) shares a rather tight-knit society because of our differentiated school modules. Be it geeky inside coding jokes or staying up working on our projects together, SIS students have it different from students in the other schools. Because of which, we held SIS Day 2015 on the 1st floor of the newly opened SMU Labs with a whole slew of performances and highlights meant to celebrate everything that is SIS!

My personal experience with organizing the event was very fond, with it being the last highlight event of my committee’s term in SIS. A lot of things went into the preparation of this event, we first started out sourcing through our network of friends to find and locate talented students in our school who would be willing to perform for our “SIS Got Talent” portion of the night. Which was not very hard, since SIS students are all extremely talented! Following which, our sponsorship partner, VISA, and us worked closely to work out the details of our hallmark “Drunken Coding” competition, from the questions to even the prizes! Ultimately, we set out with the vision to create a comfortable and laid-back environment where students can freely hangout and be merry amongst their peers. I would just like to take this time to once again thank my committee for their hard work throughout the entire year, the culmination of our efforts on SIS Day 2015 can be seen and felt by everyone, as well as VISA for their generous sponsorship of both the prizes as well as the sumptious buffet spread!

SIS DAY 2015

BY: DERRICK GOH

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SIS Instructors Mok Heng Ngee and Vandana Rao initiated Project “Let’s Code!”, which will start running this year. This project is funded by a Ministry of Education research grant, and is supported by the Singapore Computer Society, Institute of Electrical and Electronics Engineers (Singapore Section), Science Center Singapore, and the Infocomm Development Authority.

What’s “Let’s Code!” all about?
In short, “Let’s Code!” is a course that aims to introduce basic programming in a formal and fun way to Pre-U students over three weeks. There are four planned runs of the course: June 2016, Dec 2016, June 2017 and Dec 2017, and will be taught by SIS instructors and teaching assistants. The course will be delivered in blended learning format.

What’s “blended learning”?
A blended course uses face-to-face sessions and online platforms in a synergistic way to deliver the content. Most of the time during the three-week course will be spent learning at home or in study groups, watching video lectures and attempting programming assignments. This will be supplemented with seven face-to-face classroom sessions during which learning happens via instructor-moderated active learning activities. It’s still an intensive course nevertheless, and participants are expected to do quite a lot of “homework”!

Why pre-university students?
Do you know that only 3 out of the 18 Junior Colleges were offering “Computing” as an “A”-level subject last year? Most JCs have computing-related hobby clubs that students can join as a Co-Curricular Activities, but the overwhelming majority is not formally exposed to programming and computing. Everyone plays games and uses apps on smartphones, but Pre-U students are not exposed to the “other side” - the development work involved in creating these apps. I think that a lot of students are not choosing IT/computing as an option when deciding on an undergraduate course because of the lack of exposure to this field. This project targets Pre-U students who are not taking “A”-level computing; we assume that participants know nothing about programming, want to spend their holidays learning a new skill, and have a good head for problem solving. It’s our hope that this course will spark interest in IT and computing. Even if participants decide that programming is not for them after the experience, that’s a good thing!

What do participants get at the end of the course?
Besides new friends, insight into “varsity life”, and exposure to programming, participants who pass an assessment on the last day will be awarded a certificate of competency by SIS.

This sounds cool! How do interested participants apply?
Application will be open soon to all JC students and year 4-6 students in Integrated Programme (IP) institutions.


SIS INSTRUCTORS

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IS101 - SEMINAR ON INFORMATION SYSTEMS

BY: JAREN LIM JIAN QUAN

One of my greatest takeaways from IS101 is the spirit of collaboration. Working as a group exposed me to the various dynamics present and allowed me to learn from my peers. Course instructors and teaching assistants were readily approachable, helping with the understanding of complex concepts. This spirit of collaboration was not just restricted to the group projects – our entire cohort organized mass-discussion sessions before the final examinations, much like cohorts before us!

On a personal level, I have greatly benefited from the lessons on Big Data, Analytics and Cloud Computing. They got me interested to do more research and I realise that those are areas which I would like to pursue in the future. Evaluating the course from start to finish, I can confidently say that IS101 has been a meaningful experience for me, and I am sure that all future juniors would greatly benefit from this course as well!

IS103 - COMPUTATIONAL THINKING

BY: JARED SIM MOK KHIM

If you ever had a night out with friends and wondered which path you would have to take in order to minimize the cab fare while dropping off all your friends, you have ran into a classic computational problem. Problems can be difficult, confounding beasts, where solutions to overcome them can be elusive if you are not equipped with the proper skills. IS103 Computational Thinking is a course that arms you with the vocabulary to categorize and express different types of problems, instructs you grammatically on how problems can be broken down into smaller manageable pieces, and equips you with an arsenal of algorithms to tackle these problems.

Computational thinking has taught me how to formulate problems in a way where computers can understand them, allowing me to leverage on modern computing power to solve problems that require extensive man-hours to calculate. It has also allowed me to realise that some problems can be generalized - using similar steps to solve multiple types of problems. Computational thinking is also an immensely useful skill which have improved the way I code and architect programs. It does have a steep learning curve but by spending time and hard work practicing the concepts, you will certainly find this module a great learning experience!

IS200 - IS SOFTWARE FOUNDATIONS

BY: TAN KEE HOCK

IS Software Foundations (IS200) is your very first step into the unearthly realm of programming. The course is designed in such a way such that it is easy to be picked up by people who had no prior experience. Just as the saying goes “Before you learn to fly, you need to learn to walk”. This is what this module is all about. Before you think of creating the next hit app like Instagram, you need to understand the essence of programming.

For beginners, you can expect to see a lot of alien writings. Do not be afraid, instead, understand it. Initially you may feel that the learning curve is a bit steep but trust me that it will only get easier as days pass. For the experienced, do not get complacent. Do follow up with the lessons. Rather than challenging the approach here, try to understand and embrace. It’s a matter of thinking. Be humble and thirst for knowledge.

Everything in SMU, is cumulative; work hard and pace yourself! As long as you do your best, there is nothing to regret. Stay sharp, opportunities are all around especially in SIS.

IS201 - OBJECT ORIENTED APPLICATION DEVELOPMENT

BY: RUSSELL YAP SONG CHEN

OOAD, also known as Object Oriented Application Development is a module that teaches coders about packages; drawing sequence diagrams; and making a one click ‘batch file’ which will ‘magically’ run your source code. Firstly, do your lab assignments. It is okay to get it wrong, but at least try to attempt it! Next, if you do not understand, ask! I know it can be intimidating to be the “blurt sotong”. Be the brave one to save all “sotongs” from confusion. Most often, what you think you know may not be exactly correct.

Lastly, do not be afraid to try. There are available resources where you can look for help. Form study groups and work together on the lab assignments and enjoy learning together! Stay hungry, happy coding and may the compiler odds be ever in your favour!

IS202 - DATA MANAGEMENT

BY: ONG SUE CERN

IS202, Data Management teaches students how data is organized in a database and how useful information is extracted.

The highlight of the course for me is definitely the project, which we completed in groups of threes. It was split into 3 different phases: modeling and logical design. The scope was wide enough for different perspectives to represent the business scenario. My group spent many nights debating over our design and even had lengthy discussions with other groups.

I really enjoyed the module, partly due to having a great experience interacting with the teaching staff. My professor would clarify the project or any of our conceptual doubts promptly via email and my instructor arranged feedback sessions for our individual lab test component. This certainly enabled greater learning and interest in the module and together with my classmate, we’ve decided to take on additional advanced-modules in this field!

IS203 - SOFTWARE ENGINEERING

BY: ALEX TIANG ZHANG YONG

Software Engineering is a module widely dubbed as the ‘rite of passage’ at SIS for every 2nd year student. Initially, I felt that the workload was too heavy due to the steep learning curve and expectations from people around me. However, working with my group mates made the experience priceless. Not only did we experience working on the different roles in a software project, we managed to hone our technical abilities when it came to learning new frameworks and web development. My group mates and friends kept me going through this arduous journey, and I am deeply appreciative of that.

One of the main challenges in this module was trying to coordinate everyone’s schedules. Due to the time constraints, it was a challenge rushing to meet the iteration deadlines. Also, we had to make sure that our communication was seamless due to the crucial need to understand each detail of the application. This module gave us the opportunity to experience what it was like to handle a project that had ever-changing requirements. However, I am glad that the faculty members provided us with much needed support; Our instructor always tries his best to clear up all our doubts and provides us with the good foundations required for this module.
IS301 - ENTERPRISE INTEGRATION
BY: SALLYANA

IS301, Enterprise Integration enables the exchange of critical business information between the various systems in real-time; the integration can happen not only within an enterprise, but also between businesses, and between business and customer. In Enterprise Integration (EI) module, we were taught the various concepts and technologies needed to develop EI solutions. There were many hands-on opportunities to interact with the various integration software tools, be it through the course’s lab exercises or through the group assignments.

In the group assignments, we were given the opportunity to come up with creative business scenarios. Many groups came up with the craziest ideas and it was one of the most interesting and fun courses in my SMU life! I have learnt to apply the different tools and technologies that we encountered in the business scenarios and also explored other technologies that enable enterprise integration. In addition, I have learnt to understand and apply my knowledge to select appropriate integration tools that are able to satisfy the integration needs of the organization. I believe that with this EI knowledge and my arsenal of IT skills, it would definitely serve me well in my future endeavours in a workplace that requires enterprise solutions.

IS302 - INFORMATION SECURITY AND TRUST
BY: NGO KEE KAI

In Information Security & Trust, we learnt to gain in-depth knowledge of relevant security issues in computer systems, networks and their application. Through this course, I learnt to build security model, implemented different algorithm to encrypt information, identify and mitigate possible threat to the system. From the projects, we are given the opportunity to explore multiple tools, such as OpenSSL and Cryptool, and make use of what we have learnt in class and implementing it in the real-life scenarios.

The faculty is very helpful and they put in a lot of effort to make this course interesting and relevant for the students. Also, the Professors are very friendly and knowledgeable, they challenged and guided the students to do above and beyond of the project scope. This inspires me to push my limits for this course.

My advice to juniors – Always challenge yourself to think out of the box and try something new for this course. You will never know the outcome only until you tried.

IS304 - PROCESS MODELLING AND SOLUTIONS BLUEPRINTING
BY: TAY JING YING

Ever been curious on how large food corporations such as Subway solve their long queue issues? This is the module which answers that! In Process Modelling and Solutions Blueprinting aka PMSB, we model real-world business processes, analyse them to detect problems and bottlenecks, followed by recommending solutions to solve them through simulations of the proposed processes.

PMSB is not a technically demanding module as we learn the business side of things which completes the holistic curriculum of Information Systems. Throughout the semester, there were several case studies which were interesting as they depict real-life business problems. Hence, this gives me a sense of what happens in real life and how PMSB is used to solve real-life situations. Earlier, I mentioned that we used simulations to recommend solutions. Signavio was the tool that helped us make better judgements on the solutions that we have come up with. The curriculum has been carefully crafted in this module by SIS, which served a great deal in preparing us on modelling solutions for problems in processes.

Overall, I think that PMSB was really enriching! So do look forward to this module in Year 2!

IS303 - ARCHITECTURAL ANALYSIS
BY: JAW KIEN ANN

Architectural Analysis (AA) was a module that made sense of a senseless world. During the summer, I undertook an internship as a Software Engineer at a tech start-up. In the later part of the internship, I was tasked with setting up a Message Oriented Middleware. After drafting up the initial messaging patterns, my mentor then asked me, “Great, so how many threads would I need to dedicate on the server to handle this?” Thus began my first encounter with production level considerations for parallelism and concurrency.

AA helped me refine such questions and answer them. Why should a thread sleep, when should a thread yield, how many processes should a thread handle concurrently? The more we covered during the semester, the more I was able to reflect upon my internship learnings.

All these could not have happened without the SIS pedagogy. We were equipped with the proper know-how to start learning things the right way. We are encouraged to discuss and exchange ideas based on our experiences, further expanding what we learn to beyond just the classroom.
Your secret to success; overcoming obstacles

When I first saw my results in SMU, it was terrible. Two “F” grades in a semester. That is it. I thought of giving up because I knew the fact that I could not cope with my studies compared to my classmates who did pretty well here. I could not master the foundation of programming in Java code and my morale was very low. All I wanted to do was to withdraw from SMU.

However, my good friends stood by my side. They encouraged me and gave me guidance on the modules I was weak at. Their positive attitude towards learning made me felt that I should not give up on myself. Initially, it was a struggle but I managed to overcome it and start to have a goal in mind which is to keep trying because I will never know how far I can go.

In the second semester, I felt a sense of accomplishment when I got a “B” grade in a module. I dared not be complacent and I continued to study even harder than before. Eventually, I got my first “A” grade after two years. Grades meant how much I have learnt up till now and I realised I have learnt a lot.

How has the faculty/peers aided you in this progress

Professors gave special guidance to students who are weak in a particular module. No doubt, I was in one of the weaker students. I am thankful that they spent so much time to help us with our studies and corrected the mistakes that we made each time.

Any guidance/advice you have for both incoming freshmen & current students

If you feel that you cannot manage your studies, split up the modules in the semester so you can have more time to focus on the modules that you are weaker at. Communication is always the key to success. Talk to your peers and family about the issues that you are facing. You must always believe in yourself and the ones who pushes you. You will see the light at the end of the tunnel.

SMU is a prestigious school and you can definitely secure a good job in the end.

Your experience at the Gala Dinner

I am very honoured to attend SCS Gala Dinner for two consecutive years. I am proud of my other classmates who improved as much as I do despite getting poor grades at the start. Some schoolmates are even foreigners and study in a foreign country is difficult but they did not give up too. Hence, there is no reason for us to give up too. I am very glad to have the opportunity to meet these strong warriors with a very positive attitude towards learning and met the professors who were there to celebrate this special occasion with us.

Having decided to take on 1 more internship in the summer of year 3 in order to get more practical work experience and exposure, I wanted to find a private company that was heavily invested and involved in technology. Therefore, when I heard that Visa was offering an internship, I jumped at the opportunity and signed up.

I think the key difference of this internship program would be its structured approach which many companies offering internship still have not adopted or have not fully implemented. Even before the start of our internship, we were invited down to their office for a meet up with our internship managers over a nice dinner. This was key to helping us get acquainted with our managers and their expectations so that we can be better prepared even before the start of the internship program.

At the start of the internship, we had to go through an orientation week which really helped us to know more about the company as well as allowing all 19 of us to bond. One of the key highlights of the internship would be the case challenge competition where we were split in 4 groups to come up with ideas for the case. This was a really interesting opportunity for us to work on a business related case instead of us just focusing on our technical work.

With regard to my work, I was with the Digital Marketing Systems team in Visa. There I was placed in an actual marketing campaign project called #NotATourist and manage to get actual hands on experience by developing part of the backend functionality for data collection and moderation. As I was part of an actual ongoing project, I had to ensure that I was able to deliver my work according to schedule which could otherwise affect the progress of the project. It was a really great feeling to see the project that I had a hand in developing go live.

I think one of the most unforgettable parts would be the end of the internship where all 19 of us were sponsored for a 5 days trip to San Francisco to attend the first ever Intern Summit for Visa. We had plenty of fun meeting the other interns from around the world, listening to talks from senior management as well as doing community service! Charles W. Scharf, the CEO of Visa also personally came down to address all the interns over a sumptuous breakfast. When we first signed up for this internship, we never knew that the end of the internship would be that fantastic. Kudos to the university talents team from Visa for planning such an unforgettable internship program!
We often think of SIS journey as an action movie. The protagonist, which is the SIS student, will have to clear numerous obstacles to finish the show. Just like any blockbuster movies, there is often one final destination that is incredibly tough and difficult. As if life isn’t tough enough, there will always be the final big obstacle that you will have to clear. In SIS, that big obstacle is also called IS480.

IS480 is a capstone project that all SIS undergraduate have to complete to earn their keep and title as a SIS graduate. Spanning over two semesters, this course challenges you to your limits intellectually, emotionally and physically. Normally done in a team of 4 to 6 students, the team will have to complete a software development project for an industry client. Even though you can do your capstone project in your third or fourth year, it is commonly referred to as Final Year Project (FYP) because once you are done with it, you’d have cleared the hardest course that you will do in your undergraduate. Once you complete it, it is a reason to rejoice as it shows that the end of your institutionalized education is drawing close.

We are team Rokoo, and our IS480 Journey started back in April 2015. We were all quite lost at the beginning and we did not know what to expect. We wanted to do a project that is challenging and fruitful, and thus it is important for us to allocate roles that maximizes each other’s strengths. With the help of the school, we secured a project with the NEC, and this marks the start of our project.

We are developing a collaborative platform for NEC to use in their workplace. Even though the courses in SMU has given us strong foundations, the demands of the project require us to explore new technologies on our own. This process is challenging, and the learning curve is quite steep and it pushes us to our limits. Furthermore, we juggled the project with our internships, and we have to meet in school after work and on weekends to do the project.

All of us have different roles in the team. Zac, Charlie and Yingmei were the developers of the project and they were the key drivers for the project. Lifang was in charge of quality assurance and she makes sure that the product produced is of good quality, just like how quality control is being done in production lines. We believed that good design matters, and Tiffany was tasked to design the entire user experience and interface of the product. To make sure everyone is on track, Edison plans schedule and makes sure that development in the project is well-coordinated and communicated within the different stakeholders.

The process wasn’t easy, and we couldn’t have done it without the help of Professor Benjamin Gan who served as our faculty advisor. Our team put in a lot of effort into the product, and we are pleased that we handed over a functional and working product that NEC could use in their company. At the end of the course, we were awarded the Best IS480 Project award and Infosys Lodestone award for good performance and it was the proudest moment in our undergrad experience!

Looking back, we were pleased to see how far we have come to and how much we have learnt in the process. The journey was tough but it was nevertheless a fulfilling and defining moment that we will remember forever.

If there! I’m Shaun Teh, a Year 3 SIS student with a second major in Finance. I was the Project Manager for Team Chipmunks during our IS480 project in AY2015/2016 Term 1. Throughout IS480, we developed the platform StockParser, an online investment analysis platform.

IS480, commonly referred to as the Final Year Project or FYP in short, is arguably one of the heaviest modules that any student can undertake while in SIS. Unlike most modules that span a single academic semester, preparation for IS480 happens about 8 – 12 weeks before the full 16 weeks of IS480 begins during the semester. During this time, students work in teams of 4-6 with an internal or external client on a project to develop specific use cases. These teams are also periodically reviewed by supervisors: IS professors who assess the team’s progress over the duration of the module.

How Team Chipmunks Was Formed

Prior to IS480, the 5 of us have known each other since we were in Year 1. Most of us have also worked together on projects and had bid together for various classes before. The familiarity and pleasant working experience we have had thus far led us to group together for IS480!

A Rocky Start

Our team chanced upon this project through a series of referrals by various professors who linked us up to our eventual client, Professor Guy Weyns. However, upon looking at the project specifications, we soon found ourselves face-to-face with many unknowns. Firstly, we were IS students with no deep understanding about finance and investment analysis. Secondly, we were very new to many of the technical aspects that were required from the use cases, such as the building of custom visualizations and the retrieval of data from a financial data stream. While our team had great interest in the problem space, we could not help but feel unprepared in undertaking this project.

The Learning Process

Despite these many unknowns, we realized that IS480 was really about adapting and learning new skills along the way. Indeed, we started to understand the idea of change being the only constant in the workforce. Knowing this, we took these challenges in a positive light and trusted each other to deliver in each of our respective areas of focus.

Final Takeaway

All in all, we felt that the entire process of IS480 had been both highly enriching and interactive. We engaged people from SMU investment clubs, had our application demonstrated to senior people at a leading investment bank, went through countless design improvements and gained deeper insights into investment analyses. These interactions helped us to validate the application while also focusing on constantly improving the user interface to enable a better experience. Looking back, the entire application truly felt like an insurmountable endeavor at the start, but we were glad that we took it!

Our client was impressed with our delivery and have requested for continued development of our application beyond IS480.
The People Behind The Scenes

Unlike many of the case competition that are organized by companies, APEX Business-IT Global Case Challenge is a student-initiated event organized by SMU Undergraduates. The first edition of the competition was proposed by a group of SIS students who had participated in an overseas case challenge, and was determined to bring back a similar event back to Singapore.

Currently in its eighth edition, APEX Business-IT Global Case Challenge is organized by a team of undergraduates from various backgrounds and diverse skillsets. Under the supervision of Dean Steven Miller, Professor Kyong Jim Shin, Professor Mei Lin and Professor Ma Dan, the event’s success is the result of a year’s worth of preparation time, made even more commendable with their existing commitments away from APEX Business-IT.

The planning of the event is an uphill task as it comprises of a whole spectrum of operations like Competition Design, Events, Logistics, Finance, Marketing, Public Relations and University Relations. Currently led by Brian Tan, a third-year SIS Student, the committee seeks to plan the event iteratively by following close deadlines and refined Project Management practices. The committee also seeks creative engagement methods to attract a wide range of universities from all over the world to APEX Business-IT. Successively led by repeated committee members, the event is planned carefully to deliver the best experience for its participants.

In coherence with SMU’s motto of “a different U”, APEX Business-IT strives to innovate and differentiate itself from other case challenges. To inject a tailored competition experience, APEX Business-IT uses a stimulating competition format and produces ‘live’ case that was written by SMU’s Case Writing Initiative and Professor Mei Lin for months prior to the event. Also, the competition provides a unique Singapore experience for participating teams and the organizers seek to provide a warm atmosphere for participants to network with one another.

Although the planning of the event is tough, the dedicated team of people is determined to bring the best experience to all stakeholders every year. Brian wistfully notes, “APEX Business-IT has brought to me nothing less than an amazing experience each year. The planning phase was tough, but seeing the participants, coaches and judges enjoying themselves during the competition is always a heartwarming and unforgettable experience. I have learnt a lot from many amazing people through this journey.”
Last summer holiday, Eustace, Clarence and I participated in Hackathon@SG 2015. Hackathon@SG is the biggest hackathon event in Singapore. I was a SMU School of Information Systems (SIS) year one student, and I had no prior experience in writing computer codes and hardware DIY. How was I going to compete with so many of the other young brilliant minds who tinker with their Arduino(s) and Raspberry Pi(s) in their free time? Still, I thought to myself: “Even if I do not win, I will get free cool t-shirts, free food and see lots of cool stuffs! What’s there to lose?” As it turned out, it was the my best decision of that summer.

We began our training a few weeks before the event, only twenty-four hours to develop a working prototype which we can show and present to the panel of judges for the competition. After 2 semesters into our bachelor’s program, we were well acquainted with some of the latest trends in the IT world, and also, equipped with some basic programming skills. Nevertheless, we needed to learn other frameworks and languages that would enable us to develop at a quicker pace. Thankfully, the School’s syllabus is focused on concepts. Instead of simply learning enterprise-centric tools, the fundamentals and intuition were driven into us. This allowed us to quickly and easily adapt to new frameworks and languages.

Just one year ago, I was still an anxious ‘freshie’ worrying about my ability to keep up with the schoolwork. After all, SIS is known for its intensive curriculum.

The 2D1N hackathon was an eye-opening experience for me. When you see people bring in their entire iMac computer setup and 30-inch desktop monitors, you know they were in for the win. Though their gear seemed impressive, my trusty four-year-old Macbook Pro was portable enough for me to retire to the beanbags. I also didn’t have to worry about competitors peeking at my work.

The organisers were very hospitable and kept us well fed. Other than the four standard meals, they provided free flow of ice cream, popcorn, and coffee!
What is Javaly?
Javaly is a tool that helps instructors teach programming better, and helps students learn programming in a fun, yet methodical way.

One of the most important things was for instructors to monitor and give feedback to the weaker students who are silent in class. We have implemented a live dashboard that enables instructors to look at the code while students typing it and write comments specifically to solve this problem. We’re hoping to do more great things with the data we collect, and hopefully it’ll be fun!

The experiences both of you had

Wai Tuck: I coded a small subset of the program, in the area I was interested in: writing an API to test the code that the user outputs. There are a lot of considerations when writing something like this, because it has to be easy and intuitive enough to use from the standpoint of the instructor when they are writing questions. It was really through this that I learnt the importance of abstraction. I had to rewrite the API 6-7 times over because it was extremely difficult to make it simple. In the current version, all they had to do was simply write a method call with an annotation. It was like finding the most elegant solution to a puzzle; the journey was difficult, but utterly rewarding.

Clarence: I coded the web application, from the user interface that you see, to the backend integration with the test engine, and of course all the class management features in between. From the onset, some challenges of writing an application to run arbitrary code submitted by the end-user was to ensure security and scalable performance. Initially, I simply exec-ed java code on the application server (meaning any malicious code would just be run without question). Working on feedback from my senior Kee Wei, I went on to learn new technologies like Docker that allowed us to sandbox untrusted code in “containers”. I also built a queue system, so that workers from different computers may process jobs (compiling and running the code) simultaneously - a solution to the performance problem. Indeed, each challenge we faced was an opportunity to learn something new, a never-ending quest to improve! Working on a real project with wonderful access to my users for feedback was super fun, since I always get new ideas to make it more user friendly, and keep iterating! Keep the feature requests coming (:)

How SIS has helped!
The faculty have been extremely patient with us and gave us a lot of good feedback and lessons. We are glad that they were willing to trust our application enough to put it to use in their classes. We would like to thank Vandana for allowing us to use her enrichment class as our first beta test group, Prof Kevin Steppe, for his tireless support of Javaly, the IS200 student TAs who were our unofficial bug hunters, and everyone else who helped us to beta test.

And finally, this project would not have existed without the initial seed - an offhand comment by a faculty who is dear to our hearts, Lee Yeow Leong (and of course plenty of nagging... ahem...constructive feedback!) We hope that SIS will put our app to good use and benefit from its usage!

WhiteHats Society

What is WhiteHats Society?
WhiteHats Society is a special interest group in SIS where our main goal is in advocating information security to SMU Students. We are also the student body and contact point for information security collaboration with security agencies like CSA(Cyber Security Agency of Singapore), e-Cop, Symantec and even gaming companies like Ubisoft.

What they do in a typical session?
Currently, we host both student and industry speakers to give cybersecurity talks on topics such as password security, honeypot trapping, game security to evolving cyber risks and implications. As technical as it may sound, non-information systems students are also welcomed to join in and learn more about the current threats of the cyber world.

Key Events
Worked with CSA (Cyber Security Agency of Singapore), Ogilvy & Mather and Ministry of Funny in Let’s Stand Together Movement for Wifi Social experiment in SMU. View Video here https://www.youtube.com/watch?v=EjRGmaypqrs
Working with CSA and ThinkSecure for WhiteHacks Coming March 2016!
This will be an event where JC bootcamp followed by a capture the flag event to decide which team is the best.
About SMU FinTech
The objective of SMU FinTech is to raise awareness of FinTech (financial technology) among the student community at SMU. With a growing demand in this space, many people in the financial services sector are talking about FinTech. How can it be that students know so little about FinTech?

The establishment of the club is really to bridge the gap between the industry and the university. From an education perspective, students can gain to benefit by understanding some of these FinTech players and the space they operate in. Broadly speaking, students become more informed, which hopefully gives them a wider perspective of things that are happening around the world and in financial services.

This opens up more paths that they can consider as careers or entrepreneurial pursuits.

We achieve our objectives through 3 avenues:

Education
We are currently collaborating a trial run of educational programs with OCBC, where student-led groups present on selected topics to OCBC. Each ‘run’ will last for close to 2 months, and culminate by having a presentation about the content to OCBC’s senior management. This gives students the mentorship of industry professionals, the experience of presenting before senior management while increasing their depth of knowledge about FinTech. At a broader level, it also elevates SMU’s standing and presence to industry partners, paving more opportunities for our students.

Networking
Beyond the OCBC mentorship engagement, we are also looking at inviting selected persons that are experienced in the field of FinTech to share their relevant experiences with the club. We already had one such event, whereby we invited Barry Levitt, the co-founder of payments FinTech startup SmartPesa. We will continue to be on the lookout for more of these opportunities to provide touch points for SMU students to network with people in the industry.

Development Opportunities
Besides the two opportunities above, we will also encourage our students to join FinTech-themed competitions and other internship opportunities.

Our first run is already ongoing, with subsequent runs being discussed to involve more students.

These educational curriculums will in turn, be used for weekly slide deck presentations held at SMU, to educate the broader SMU community.