PROJECT# F17-001

COMPANY PROFILE
Communication based aimed at creating user friendly and efficient processes for organizing.

PROJECT DESCRIPTION
Web based multi platform app for document sharing and communication between users. The below is a list of goals: Communication is email based. Create Push Notifications or Local Notifications for sending/receiving email messages Email functionality; forward reply CC BCC distribution lists Create Password Recover method Create Version Check method Registration fields currently allow for special characters

STUDENTS/TIME REQUIREMENTS   First launch of testing preferred for October (flexible)

HARDWARE/SOFTWARE REQUIREMENTS
Mac for testing purposes Android for testing purposes Visual Studio 2015

PROGRAMMING LANGUAGE(S)
JS

CURRENT WORK/ARRANGEMENT
The app was built for document sharing and communication between users. Documents and communication are currently paper based

PREVIOUS PROJECT? yes, Web based multi platform app with document search capabilities and email messaging function Visual Studio 2015 Web server host www.HostHero.com PhpAdmin Cordova plugins

PROJECT# F17-003

COMPANY PROFILE
Agreement Express is onboarding automation software for the financial services industry. We built Agreement Express to help financial institutions do 3 things: Grow Faster with Less Overhead Compete with Innovators   Improve the Client Experience Agreement Express exponentially increases the speed of customer onboarding so you can realize revenue faster and scale without having to double employee count.

PROJECT DESCRIPTION
This project will create powerful analytical targeting capabilities within the Agreement Express platform. This will allow our product managers and engineers to focus on specific user segments to deliver better more personalized experiences across the platform. Ideal outcome of this project would be a release ready first version of the application analytic backend set of functions (APIs) and front end GUI that can be launched within Agreement Express. First set of analytic data points would include stats on user sessions duration of time on AEX login entry points (which browser/os) and general server statistics.

STUDENTS/TIME REQUIREMENTS Diploma / Fall

HARDWARE/SOFTWARE REQUIREMENTS
Any OS Eclipse Java

PROGRAMMING LANGUAGE(S)
java javascript polymer (framework)

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? no

PROJECT# F17-004

COMPANY PROFILE
ABATE Qr will allow practitioners to zero in on a soft tissue injury to help qualify and quantify subjective pain. ABATE Qr pinpoints the root of painful inflammation and allows practitioners to gain the information needed to deploy treatments and monitor results objectively when all we have are subjective inputs. ABATE Qr gives health practitioners an unbiased tool that will transform the way we diagnose and treat pain and many common complaint symptoms. ABATE Qr is also a treatment tool that is worn under an air cell to reduce inflammation and swelling pain causalgia. ATL will give the world relief for most pain and many common diseases using pressure points we are all eagerly awaiting introducing our product into the wearable home markets.

PROJECT DESCRIPTION
We have data that comes from our diagnostic biosensors and want to create a Game with the data. This will enhance user engagement and get reward points for reaching the goal of treating their pain with acupressure massage.

STUDENTS/TIME REQUIREMENTS   no preference. Not sure about how long this would take?

HARDWARE/SOFTWARE REQUIREMENTS
We want to include gamification application to encourage patient engagement for a pain treatment method. This device would be used in hospitals by children to treat their own pain. If BCIT could collaborate with us accomplish this goal.

PROGRAMMING LANGUAGE(S)
Not sure I heard Python and C++

CURRENT WORK/ARRANGEMENT
We have a Delphi Software platform for displaying and string data.

PREVIOUS PROJECT? yes, We worked with BCIT under and Engage Grant to develop the Biosensing Technology

PROJECT# F17-007

COMPANY PROFILE
The BC Tiny House Collective is a community-run organization advocating for the inclusion of tiny houses (http://bctinyhousecollective.com/whatistiny) into new and existing neighbourhoods across Metro Vancouver and BC. To achieve its goals of legalization and legitimization of this housing stock it is focused on engagement research and pilots.

PROJECT DESCRIPTION
The collective would like to build a web/mobile application that allows landowners tiny house builders and tiny homeowners to connect through a posting/listing platform (similar to Craigslist but with better design and fuctionality). Posting could include 1) lots for rent to tiny homeowners (single units or multiple) 2) sale or purchase of tiny houses 3) tiny homeowners looking for rental space and 4) tiny homes available for rent. A successful project would include: an application without bugs or issues well designed easy to use/navigate meet the needs of users be standardized and consistent (for uploads) interactive (re: promotional channels/sharing) and for the whole of Canada and possibly all cities across the world (if scope/time allows).

STUDENTS/TIME REQUIREMENTS To start in April 2017.

HARDWARE/SOFTWARE REQUIREMENTS
Workable on PC and MAC tablets smartphones and iPhones and on all browsers.

PROGRAMMING LANGUAGE(S)
Not sure. Would require back-end development as well as front-end design and technical programming.

CURRENT WORK/ARRANGEMENT
There is no such service yet that meets the needs of all players.

PREVIOUS PROJECT? no

PROJECT# F17-011

COMPANY PROFILE
The School of Health Sciences Specialty Nursing Critical Care program provides education to registrered nurses in order to work in complex health environments and to provide care for patients and families in crisis.

PROJECT DESCRIPTION
I provide hands-on learning in a human patient simulation lab which has 6 robots that can mimic any patient situation a health care provider can potentially experience. I am looking to develop a proof of concept using Microsoft Hoolens augmented reality glasses. Students in the sim lab using the hololens glasses will be able to have additional data available to them while caring for a human patient simulator. I would like to have hologram overlays visible through the glasses that indicate the human simulator has burns or obvious physical issues be able to use Cortana to call up lab work and a x-ray and overlay a video to indicate various pieces of health equipment are functioning. The completed proof of concept needs to be deployed so that 4-5 students wearing the hololens glasses can experience the exact same thing. Since this is a proof of concept I expect there will be issues discovered as the project develops and that the final project will not be refined. I would like students to document their process so that in future projects hurdles can be avoided and their work can be built on. I expect a somewhat iterative approach to this project. I will act as the subject matter expert and provide any or all health related artifacts along with access to the simulation lab.

STUDENTS/TIME REQUIREMENTS   I am pretty flexible as to either the Sept 2017 term or the Jan 2018 term. No preference.

HARDWARE/SOFTWARE REQUIREMENTS
Windows 10 computer running the Windows hololens development center: https://developer.microsoft.com/en-us/windows/mixed-reality/development 4 Hololens that I will provide.

PROGRAMMING LANGUAGE(S)
Unity Java and potentially AI programming surrounding Cortana. This is really not my area of expertise so a bit of a guess.

CURRENT WORK/ARRANGEMENT
Currently in the simulation lab we apply makeup and other props to the human simulators (robots) to add realism. We would like to move into virtual reality as a cost and time saver and to be more immersive for these students. Right now you need to be on campus to receive simulation experiences/learning so this leaves out 50% of our student population in health. I firmly believe the AR/VR is the future of health education and that this is the first small step in the goal of providing students simulation & collaboration experiences anytime any place and personalized to their learning. For health care students embodied cognition is very important. Check out this blog posting on the effect that AR/VR is having on health: https://www.td.org/Publications/Blogs/Healthcare-Blog/2017/08/How-Virtual-Reality-Is-Revolutionizing-Healthcare

PREVIOUS PROJECT? no

PROJECT# F17-012

COMPANY PROFILE
The Student Life Office (SLO) is working to enhance the student experience at BCIT by helping connect students to the range of services and supports available. The SLO is working to ensure every student receives timely information on services supports and events that may positively impact their success and wellbeing throughout their time at BCIT.

PROJECT DESCRIPTION
Using the existing Student Services Wayfinding Guide (found here https://www.bcit.ca/welcome/orientation/) and the Student Led Tour script (to be provided if project selected) create a gamified mobile friendly virtual wayfinding experience that students could engage in remotely or in person (solo or in groups) without requiring an in person tour leader. This supports BCIT's goal to extend Student Services awareness and access to all students in order to support student success. It could increase services awareness as well as wayfinding for students with various needs including but not limited to: - program based at another campus but needing to know where/how to access BBY campus resources; - students with Program start dates throughout the year other than early September; - students who have a need to know more about the location and layout of campus before arriving either for comfort or anxiety reasons   - PTS students who are scheduled on campus "after hours" but are researching coming to campus "during hours" to access a service. I could see this incorporating well into a future non-credit online (D2L) BCIT 101 course. Student Life Office is working on a pilot BCIT 101 entry course in 2017 Fall with possible goal of all newly admitted students as of 2018 Fall being given access to this free course. May also need to incorporate into BCIT Mobile Student App that is currently in development (possible launch Fall 2017).

STUDENTS/TIME REQUIREMENTS   Fall 2017 for possible 'live' access in January 2018 and inclusion in BCIT 101 pilot or Winter 2018 for possible 'live' access in Summer 2018 and inclusion in launch of BCIT 101 (post pilot).

HARDWARE/SOFTWARE REQUIREMENTS
Needs to be mobile compatible and plug into website and/or D2L.

PROGRAMMING LANGUAGE(S)

CURRENT WORK/ARRANGEMENT
Currently newly admitted students are directed to https://www.bcit.ca/welcome/ in their Admissions letter to learn more about the BCIT Community including the range of supports and services available regardless of what campus the student's Program is based on. More interactive entry programming for new students is currently focused almost exclusively for Programs with Early September start dates on the Burnaby Campus. This includes Wayfinding Stations Program Orientations Student Led Tours Services Expo Calendar of social and educational Events. With 5 campuses many Program start dates throughout the year and both full time and part time students we need to expand this entry programming to welcome and orient new students to the BCIT Community (beyond their specific Program) in a sustainable way.

PREVIOUS PROJECT? no

PROJECT# F17-015

COMPANY PROFILE
Celayix Software delivers a powerful suite of workforce management tools including employee scheduling software time & attendance and employee communication for customers from various industries. Our solutions are designed to meet the needs of small and medium businesses while addressing the complexity of enterprise organizations.

PROJECT DESCRIPTION
Team Xpress eClock Project: Create Team Xpress eClock application targeted to run in kiosk mode for PCs and as a pinned app in Android devices. This will use existing APIs and business logic built for Team Xpress Background: Team Xpress is a single page application providing team members a suite of tools to review their schedule and perform time and attendance tasks. Functional Requirements * Allow multiple users to use the application (hence login information cannot be cached locally) * Allow employees to login perform their clock actions like checkin checkout safety check break start break end quickly with no other distractions and automatically logout at end. * Allow supervisors to configure the application

STUDENTS/TIME REQUIREMENTS Diploma - Fall Sept

HARDWARE/SOFTWARE REQUIREMENTS
Web browser

PROGRAMMING LANGUAGE(S)
JavaScript React framework Cordova/phonegap

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? no

PROJECT# F17-016

COMPANY PROFILE
We are regional airline operating in multiple bases in British Columbia and Alberta.

PROJECT DESCRIPTION
Overall Objective -centralize digital data collection across all departments of the company - development front ends using a combination of HTML5 Windows 10 apps Android Apps and iOS apps -develop applications for pilots to collect data offline on a Windows 10 device then sync to a live database -develop application for base station data collection offline on a Windows 10 device then sync to a live database -develop an electronic timesheet web application (HTML5) with a Windows 10 App/Android App for secure approvals -develop an electronic purchase order web application (HTML5) with a Windows 10 App/Android App for secure approvals -develop reports to pull data from collected data and merge with secondary database to produce functional operations and accounting reports

STUDENTS/TIME REQUIREMENTS   Project has started and we expect to complete different parts of the project at different times.

HARDWARE/SOFTWARE REQUIREMENTS
Desktop HTML web browser/internet access Hardware for Apps Windows 10 Mobile/Desktop Devices iO9 devices Android v5+ devices

PROGRAMMING LANGUAGE(S)
PHP Javascript HTML XAML Visual Studio XML

CURRENT WORK/ARRANGEMENT
We currently have 2 staff members working on the 3rd party database and developing out own SQL database.   We have a single member of the team actively using our RAD application (scriptcase) to build HTML application forms.

PREVIOUS PROJECT? no

PROJECT# F17-018

COMPANY PROFILE
Intelligent notes that drive knowledge through the business. Take notes and have them automatically update other platforms while returning rich knowledge to the user to support their efforts all through the power of natural language. Customers include some of the most renowned players in the tech sector today.

PROJECT DESCRIPTION
You're looking for a challenge that will change the way that notes and conversations can trigger events between users and systems. We need someone who can work with us to design a democratic knowledge creation and sharing platform that relies on natural language and keywords to surface the right information to people and systems at the right moments in time. You're familiar with React.js Rails and AWS at a minimum.

STUDENTS/TIME REQUIREMENTS   no preference. The sooner the better!

HARDWARE/SOFTWARE REQUIREMENTS
Laptop

PROGRAMMING LANGUAGE(S)
React.js Rails AWS Postgres

CURRENT WORK/ARRANGEMENT
We have an organized dev process led by our CTO Justin Vaillancourt - one of the brightest software engineers in Vancouver. You will report directly into him and come out with a skillset that will set your career in the right direction. The platform itself is well architected (www.dooly.ai - watch the video) and scaling rapidly. Knowledge automation is our next big push.

PREVIOUS PROJECT? no

PROJECT# F17-020

COMPANY PROFILE
Ellako Industries is a small multifaceted corporation involved primarily in industry innovation and services. We are a new and growing company excited about the different projects in development.

PROJECT DESCRIPTION
This is a project based in HCI and because HCI is multifaceted in nature a wide and interesting range of challenges will be involved in the project. A computer is a platform that can affect user emotions through content by way of social media and other online content. Our project's goal is to enable the computer platform itself to affect user emotions toward a more positive user experience.   We envision the creation of a stimuli/response (I/O) type software system based in face reading (emotions) technology interfaced with emotion stimulation affectors. The system's basic design is Noldus FaceReader software technology that recognizes user emotions in real time interfaced with a stimuli/response system to positively affect user emotions. A significant variety of sensory and psychological stimuli could potentially be used to affect a variety of emotional and behavior responses in the user. HCI interaction level settings could vary from a subtle increase in stimuli/response to a more intensive stimuli/response interaction toward personal growth or even as a therapeutic tool (PTSD). The stimuli/response aspect of the software would be experimented with in development and would be based in Applied Behavior Analysis (ABA). "Applied behavior analysis (ABA) is a scientific discipline concerned with analyzing the principles of learning and behavioral control (stimuli/response) developing usable methods from these principles and systematically applying these methods to change behavior of social significance." Noldus FaceReader technology is a proven and versatile system including OEM licensing and an API that should prove user friendly as part of the project's development. http://www.noldus.com/human-behavior-research/products/facereader Thank you for your attention in this matter and please feel free to contact us if you have any questions regarding the project.

STUDENTS/TIME REQUIREMENTS   We are comfortable with the general time lines as described in the ISSP program outline. No preference.

HARDWARE/SOFTWARE REQUIREMENTS
Please see project description and we look forward to discussing the project in more technical terms if the project is accepted.

PROGRAMMING LANGUAGE(S)

CURRENT WORK/ARRANGEMENT
Project theoretical development research has been completed and we are now looking forward to the early stages of actual product development.

PREVIOUS PROJECT? no

PROJECT# F17-021

COMPANY PROFILE

Product Owner

Noel Scott Principal Interface Communications Interface Communications is a private practice consultancy specializing in requirements elicitation for software development projects. Noel also works in the fields of project management and change management. In total Noel has 15 years of information technology consulting experience both within government and the private sector using a variety of methodologies. https://ca.linkedin.com/in/noel-scott-791b7617

Technical Architect

Dave Jarvis Technical Architect White Magic Software Ltd. Dave has over twenty years of experience delivering software solutions for government and the private sector. Dave has proficiency in many languages (Java C JavaScript JPA Perl PHP Pyhon SQL XSLT shell scripting) and development frameworks (Angular Struts Oracle ADF Spring). His endeavours have been primarily enterprise systems a few of which include: a real-time two-way critical event notification system; an incident management system for BC Ferries; and most recently a BC-wide e-commerce system for student transcripts. https://ca.linkedin.com/in/davejjarvis

PROJECT DESCRIPTION

Develop a minimum viable product to assess market viability. The product allows a person to manage an exercise regime that is provided to them by a health care practitioner or fitness coach. For the client the product provides:

- ability to manage the exercise regime;
- statistical analysis of fitness progress; and
- web-based interface that eliminates paper solutions.

The application will need to be delivered on smartphones tablet and the desktop.

STUDENTS/TIME REQUIREMENTS September start date is preferred.

HARDWARE/SOFTWARE REQUIREMENTS

Students will receive requisite smart phones tablets and server access for development purposes.

PROGRAMMING LANGUAGE(S)

• Java*
• JSF 2.x*
• XHTML*
• CSS*
• Client - Server*
• REST APIs*
• Java Persistence API (JPA)*
• SQL*
• Java EE*
• GlassFish*
• PrimeFaces
• PostgreSQL
• DB Schema
• Model-View-Controller

- NetBeans
- Apache Shiro (not as important)

* denotes mandatory

CURRENT WORK/ARRANGEMENT

Limited functionality web based application developed using AngularJA GIT and Bitbucket. The website has the required infrastructure in place and has implemented session management.

PREVIOUS PROJECT? yes, project was worked on by students in April17 term. Not satisfactory.

PROJECT# F17-023

COMPANY PROFILE
Lumerical develops photonic simulation software - tools which enable product designers to understand light and predict how it behaves within complex structures circuits and systems. Photonics the science of light and its interaction with matter unlocks many possibilities for the world's leading technology companies across diverse fields including biotechnology data communications information storage solar energy environmental sensing and consumer electronics.

PROJECT DESCRIPTION
To create a physics-based wave simulation application that runs on Windows Linux or the Mac written in C++11 or greater and uses Qt in conjunction with common high-level UI design patterns and architectures. The Wave Propagation Simulation Design Environment project is an application of scientific computing (numerics) where the application simulates the effects of waves (water radio) inside of a closed-area (a room or box). This simulation occurs inside of a Design Environment similar to a CAD (Computer-Assisted Design) that will consist of at least three major components: 1. A numerical solver a software component that will perform the mathematical calculations (numerics) to simulate water or radio wave propagation inside of a closed-area. (This will be supplied.) 2. A visualization UI this is the visualization of the wave model in 2D. A mesh will be required to discretize the closed area. The mesh is a data structure that represents a partitioning of the closed area into square (quadrilateral) cells where each cell will use the solver to perform calculations. The mesh will then be graphically displayed to show the wave effects. 3. A project UI these are the UI elements required in creating reading updating or closing projects (aka CRUD) as well as interacting with the wave visualization model through an object tree. The project UI will require the implementation of well known UI design patterns such as MVC/HMVC. The project could be further expanded depending on the interests of the students. If they prefer to explore the numerical solver they could work to include more sophisticated physics like calculating signal attenuation from a wireless signal like WiFi and/or introduce different material models that could affect signal attenuation. Or if they prefer to focus on the UI features they could extend the functionality of the project to support advanced visualization different geometries (shapes) etc. Objectives There are a number of internal objectives that we'd like to achieve: 1. To expose BCIT students to scientific computing which is the technical domain in which Lumerical operates. 2. To have the BCIT students investigate and explore technical design ideas from Lumerical's development group. (HMVC Property Models)

STUDENTS/TIME REQUIREMENTS   Fall Degree or Diploma

HARDWARE/SOFTWARE REQUIREMENTS
C++11 or later Qt 5.5 (possibly QML)

PROGRAMMING LANGUAGE(S)

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? no

PROJECT# F17-022

COMPANY PROFILE
Lumerical develops photonic simulation software - tools which enable product designers to understand light and predict how it behaves within complex structures circuits and systems. Photonics the science of light and its interaction with matter unlocks many possibilities for the world's leading technology companies across diverse fields including biotechnology data communications information storage solar energy environmental sensing and consumer electronics.

PROJECT DESCRIPTION
Graphical User Interface (GUI) based software applications are still ubiquitous in the age of web and mobile: from web browsing messaging text editing spreadsheet apps to professional tools for engineering accounting graphics design IT/security manufacturing aviation and medical practices - all requiring a GUI front end for reliable and intuitive human-machine interaction. To test GUI based applications for quality assurance (QA) automation is desirable but remains a challenging endeavor. This is mainly because unlike code-level testing the GUI front end is not only difficult to interact with programmatically but also much more complex in behaviour. In this project students will expand their technical and creative abilities to tackle on these two aspects: Goal #1: Develop or adopt a toolset such as in Python using Pywinauto that enables programmatic interaction with a GUI-based application such as a Lumerical product on a desktop operating system. Deliverable #1: A test environment with such toolset ready to use. This can be a pre-configured virtual machine (VM) image on disk or in the cloud tied to a particular operating system or a cross-platform executable recipe that configures commodity VM's with select operating systems. Goal #2: Integrate the GUI automation toolset (at least partially) into a common testing framework such as Python unittest PyTest or behave preferably suited for behaviour testing. Deliverable #2a: Documentation on how a client would write their own test cases such as specifying setup data triggering GUI events and making various type of assertions as well as how to execute tests on the VM and collect test result data in a standard format such as xUnit XML for export and analysis. Deliverable #2b: Five or more simple "Getting Started" examples that demonstrate the basic capabilities of the testing framework supported by the toolset which could include: start and quit the app trigger and verify mouse actions (double or right click) on select GUI elements keyboard text or command inputs or capture text or screenshot bitmaps.

STUDENTS/TIME REQUIREMENTS   no preference. Fall degree or Diploma

HARDWARE/SOFTWARE REQUIREMENTS
• A recent distribution of Python (2.6+) • Third-party Python libraries such as Pywinauto • Virtualization technology such as VMWare Oracle VirtualBox or Amazon Web Services EC2 • Microsoft Windows (7 or newer) Linux (CentOS Ubuntu) and/or Ma

PROGRAMMING LANGUAGE(S)
• Python (students are welcome to select languages based on the toolset) • Bash/batch shell scripts

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? no

PROJECT# F17-025

COMPANY PROFILE
Magnetar Games is seeding the ultimate Moonshot through development of a Simulated Multiverse organized as Virtual Alternate Realities which will seek a Simulated Singularity through our Singularity World Initiative. An inflationary expansion strategy envisions a community of communities whose open source technologies can be integrated into a component based `Matrix``. This facilitates viral growth through composition of a Synthetic Universe which aggregates Computational Science Domains starting with Astrophysics Robotics and Artificial Life. The cornerstone of the system integration required on an unprecedented scale are standards developed by SISO (Simulation Interoperability Standards Organization). These provide the infrastructure to develop a Global Simulation Grid spanning Entertainment Education and Research. Magnetar Games is led by developers who have worked together for seventeen years with intensive experience with SISO extending back to 2002. Our immediate community engagement strategy is to develop a Web3D Sandbox and Viewer for open source Virtual World Frameworks.

PROJECT DESCRIPTION
We will use a tiled graphical directory based on the Spore Game idea for the index to the Encyclopedia in Singularity.World. Each tile represents a simulation model which users can modify input parameters for and generate new prototypes. The user will have examples of existing tiles referring to objects in Astrophysics.World and Babylon.World and also be able to create new objects and place them in the Galaxy to explore and visit. To understand the power of the Spore paradigm one needs to buy Spore and Spore Galactic Adventures from Electronic Arts The viral mechanism used resulted in a reported 172 million user projects. We have to plan for billions.

STUDENTS/TIME REQUIREMENTS   No Preference.

HARDWARE/SOFTWARE REQUIREMENTS
Chrome 1080P   https://www.polymerproject.org/1.0/

PROGRAMMING LANGUAGE(S)
Javascript

CURRENT WORK/ARRANGEMENT
We are submitting four co-related web projects. They are part of a Simulated Multiverse project which is the focus of the Singularity World Initiative which is a long term "Moonshot"• initiative with immediate practical applications with the website playing a critical role. Please contact us by email or Skype duncan.suttles to discuss both the very big picture and the short term potential.

PREVIOUS PROJECT? no

PROJECT# F17-024

COMPANY PROFILE
Magnetar Games is seeding the ultimate Moonshot through development of a Simulated Multiverse organized as Virtual Alternate Realities which will seek a Simulated Singularity through our Singularity World Initiative. An inflationary expansion strategy envisions a community of communities whose open source technologies can be integrated into a component based `Matrix``. This facilitates viral growth through composition of a Synthetic Universe which aggregates Computational Science Domains starting with Astrophysics Robotics and Artificial Life. The cornerstone of the system integration required on an unprecedented scale are standards developed by SISO (Simulation Interoperability Standards Organization). These provide the infrastructure to develop a Global Simulation Grid spanning Entertainment Education and Research. Magnetar Games is led by developers who have worked together for seventeen years with intensive experience with SISO extending back to 2002. Our immediate community engagement strategy is to develop a Web3D Sandbox and Viewer for open source Virtual World Frameworks.

PROJECT DESCRIPTION
Synthetic.World will develop an encyclopedia-based interface to astrophysical objects simulations and data. The student will develop a prototype encyclopedia site similar to http://a-z-animals.com/ That site has some idea of community collaboration in extending the Encyclopedia which is a feature we will press. Entries in the encyclopedia will be connected with real astrophysical objects in astrophysics.world and babylon.world and to the simulation tools in Magnetar.World to generate new examples of entries in the encyclopedia as well as new phenomena.

STUDENTS/TIME REQUIREMENTS   No Preference.

HARDWARE/SOFTWARE REQUIREMENTS
Chrome 1080P   https://www.polymerproject.org/1.0/ http://a-z-animals.com/ http://tiddlywiki.com/

PROGRAMMING LANGUAGE(S)
Javascript

CURRENT WORK/ARRANGEMENT
We are submitting four co-related web projects. They are part of a Simulated Multiverse project which is the focus of the Singularity World Initiative which is a long term "Moonshot"• initiative with immediate practical applications with the website playing a critical role. Please contact us by email or Skype duncan.suttles to discuss both the very big picture and the short term potential.

PREVIOUS PROJECT? no

PROJECT# F17-026

COMPANY PROFILE

Magnetar Games is seeding the ultimate Moonshot through development of a Simulated Multiverse organized as Virtual Alternate Realities which will seek a Simulated Singularity through our Singularity World Initiative. An inflationary expansion strategy envisions a community of communities whose open source technologies can be integrated into a component based `Matrix``. This facilitates viral growth through composition of a Synthetic Universe which aggregates Computational Science Domains starting with Astrophysics Robotics and Artificial Life. The cornerstone of the system integration required on an unprecedented scale are standards developed by SISO (Simulation Interoperability Standards Organization). These provide the infrastructure to develop a Global Simulation Grid spanning Entertainment Education and Research. Magnetar Games is led by developers who have worked together for seventeen years with intensive experience with SISO extending back to 2002. Our immediate community engagement strategy is to develop a Web3D Sandbox and Viewer for open source Virtual World Frameworks.

PROJECT DESCRIPTION

Astrophysics.world will present these data in the form of a "Heads-Up Display"• on top of the three-dimensional visualization or the WorldWideTelescope sky view with controls to move backward and forward in time and to select different sensors to examine different properties of the objects. In collaboration with our science director the student will develop the web interface between our databases and the WorldWideTelescope and between the WorldWideTelescope and the Babylon.World close-up view.

STUDENTS/TIME REQUIREMENTS No Preference.

HARDWARE/SOFTWARE REQUIREMENTS

Chrome 1080P www.worldwidetelescope.org/ www.chart.js http://www.ap.smu.ca/~ishort/OpenStars/

PROGRAMMING LANGUAGE(S)

Javascript

CURRENT WORK/ARRANGEMENT

We are submitting four co-related web projects. They are part of a Simulated Multiverse project which is the focus of the Singularity World Initiative which is a long term "Moonshot"• initiative with immediate practical applications with the website playing a critical role. Please contact us by email or Skype duncan.suttles to discuss both the very big picture and the short term potential.

PREVIOUS PROJECT? no

PROJECT# F17-027

COMPANY PROFILE

We developed a SaaS fuel delivery management system that automates the full ordering dispatching delivery manifest bookkeeping and invoicing as the code system. On top of the core system we developed Mobile app integrated with IoT devices and working on modules such as Loss Detection Driver Performance review Auto Dispatching RFID Unit scanning geo-fencing Card-locks and much more.

PROJECT DESCRIPTION

We have new digital pumps came in last week and we are expecting some other brands to come in within next 10 days. The project is SaaS web based system integration with those hardware. This project will involve integrations of multi hardware through RS232 Bluetooth GPS LTE and WIFI connected with an in-Truck (Fuel Delivery Truck) ODB-II port. We are looking for a team/individual to join in and establish the basic communication between the devices and create the proof of concept on what we need to achieve out of these integrations.

STUDENTS/TIME REQUIREMENTS   No Preference

HARDWARE/SOFTWARE REQUIREMENTS

understanding of RS-232 communication. familiar with ODB-II port in vehicles.

PROGRAMMING LANGUAGE(S)

Any of the: PHP C++ C#

CURRENT WORK/ARRANGEMENT

Devices are here in our office. Documentations are available. We have clear project requirement to Passover. You need to connect the hardware parts together first the establish the communications between them.

PREVIOUS PROJECT? no

PROJECT# F17-029

COMPANY PROFILE
MarketSpace is an e-commerce SaaS website for creating online marketplaces where people can sell products and tickets. A person creates the marketplace becoming the owner and then invites sellers.

PROJECT DESCRIPTION
Build a new MarketSpace feature for sellers to take reservations. A marketplace owner would enable the reservations feature. A seller would create a calendar list available times and resources which can be booked (rooms services etc). Include exceptions to the calendar eg: Holidays. Customers would then browse the calendar and purchase available time slots. Integrate with our existing orders and accounts API.

STUDENTS/TIME REQUIREMENTS   No Preference

HARDWARE/SOFTWARE REQUIREMENTS
Mac or Linux computer. Git

PROGRAMMING LANGUAGE(S)
Technology is MEAN stack: - MongoDB - Express JS - Angular JS 1 - Node.js

CURRENT WORK/ARRANGEMENT
Students work remotely. Check-in's by Skype.

PREVIOUS PROJECT? yes, BCIT students built our ticketing feature.

PROJECT# F17-031

COMPANY PROFILE
OVCMT has a reputation for well-rounded and professional graduates since 1994. Our Massage Therapy Program is in full compliance with the College of Massage Therapists of BC (CMTBC) and the Private Training Institution Branch (PTIB). Graduates of our two year Massage Therapy Diploma program are eligible to challenge the provincial registration exams with the College of Massage Therapist of BC and become Registered Massage Therapists. The practice of massage therapy is regulated in BC (and other provinces) and can only be offered by RMTs. The Massage Therapy program offers a unique mix of academic and practical courses combined with extensive practicum experiences. Clinical practice experience includes the Student-operated Massage Clinic and a wide variety of Patient Outreach programs all totaling 550 hours. Outreach programs provide experience with a wide variety of patients and conditions including orthopedic systemic neurological cancer scars maternity special needs sports massage corporate patients and geriatrics.

PROJECT DESCRIPTION
Within the recent "scheduling software" for our college created by a BCIT team we need fine tuning - such as One-off session changes. In order to maintain the integrity of the database and to make the process of error handling streamlined this feature was not implemented. Would like a one-off workaround for specific rooms by days overwriting. Able to print the schedule sorted by individual or all student groups. - Instructor Timeslotting. There are no checks for the same instructor appearing multiple times in the same time slot. The data side exists already in our framework but would need to implement a front-end solution.   Front-End. Making the application more mobile-friendly. The application was designed with desktop users in mind. Testing and refactors of CSS to account for mobile devices. - PDF Export of Schedule Currently our print view is formatted correctly but a PDF view could be generated to make local storage of the files more efficient. More exploration into the jspdf library. (We have the basic functionality down but it requires fine tuning to account for variations in display types)   - Front-End. Script logic is difficult to understand because of the size of the project. Splitting scripts into more files to make the refactoring process easier. - Exams Similar to above in order to streamline the process and efficiently reduced the amount of possible entry error this was not included. Would require a similar one-off workaround for a specific rooms_by_days overwriting. (Enabling 12 TA's for a single class day would be a suitable workaround) â€¢ Not loosing all the data in a schedule when you change instructors would be a VERY valuable tweak - pull schedule by course (1 or more - and in different terms) (as well as by instructor or term)   *wish but not required: Option to connect to other spreadsheets (admissions attendance grades etc.)

STUDENTS/TIME REQUIREMENTS
Spring summer term ideal but we will be happy to have another BCIT student work on this project - we were VERY happy with the team we were introduced to and look forward to continued development when available.

HARDWARE/SOFTWARE REQUIREMENTS
windows 10 compatable

PROGRAMMING LANGUAGE(S)
Yes to coding - not sure what type - will need to reference last groups notes.

CURRENT WORK/ARRANGEMENT

I am using the current software to the best of my ability. Learning new work arounds every day but would really like help with a few of the list above. :)

PREVIOUS PROJECT? yes, Developed a scheduling program for the 4 terms of students and their 2 yr program. 2 start dates (Sept and Jan) terms are varying lengths over the 4 terms (15wks 26wks 15 wks and 30 wks) Excellent simplistic front face for users including colour co

PROJECT# F17-036

COMPANY PROFILE

We are a new game company that will be introducing some unique games to several genres of gaming. Pixelific Games was founded by Les Romhanyi & David Stoller to bring to the public their creative efforts in game design and their passion for playing games. Les has decades of experience in game creation and design. David is the business director and creative consultant regarding game production and business development of Pixelific. Les has 20 years experience as a web producer Internet marketer content strategist for the online gambling industry. Les will be available to work with the students on any Pixelific submissions.

PROJECT DESCRIPTION

Project â€œTAOEX CLUBâ€• is to create a web based membership program that allows users to create and administer tournaments and games. Players of the game TAOEX online or off would register as members whose games would be recorded for the purpose of player rankings.   The purpose of this project is to develop the database and the administration tools to manage the membership tournaments and game data for a gaming organization. Further this work would be included in a presentation for either an Indiegogo or Kickstarter crowd funding campaign. The goal of the crowdfunding campaign would be to secure the financing to create a multiplayer version of the game that incorporates a multi-table environment including all the associated requirements to accommodate individual games or tournaments.   Ideally the administration section should be built as flexible as possible for easy integration as a plugin or an odd-on. Fortunately there are not too many variables to contend with when setting up games or tournaments for the players. As such the students should be able to complete this project within the predefined time constraints. As a web professional with more than 20 yearsâ€™ experience as a producer I will be an excellent mentor for this project. I have a son currently attending BCIT until the end of October. He is an experienced Taoex player. He would be available to answer any game related questions the project students might have subject to his course-related commitments.

STUDENTS/TIME REQUIREMENTS Preference would be for a september start and would run the duration of that semester. Fall Diploma

HARDWARE/SOFTWARE REQUIREMENTS

Web hosting & MySQL

PROGRAMMING LANGUAGE(S)

SQL PHP

CURRENT WORK/ARRANGEMENT

There are no current arrangements

PREVIOUS PROJECT? no

PROJECT# F17-035

COMPANY PROFILE
We are a new game company that will be introducing some unique games to several genres of gaming. Pixelific Games was founded by Les Romhanyi & David Stoller to bring to the public their creative efforts in game design and their passion for playing games. Les has decades of experience in game creation and design. David is the business director and creative consultant regarding game production and business development of Pixelific. Les has 20 years experience as a web producer Internet marketer content strategist for the online gambling industry.

PROJECT DESCRIPTION
Project TAOEX is to create a web based 1 player versus 3 computer players demonstration game of the new board game TAOEX. Please visit http://taoex.org for a little more information on the game and to view a time lapse video of the game being played. The purpose of this project is to take the demo game created by the students and include the finished work demo game as part of the presentation for either an Indiegogo or Kickstarter crowd funding campaign. The goal of the crowdfunding campaign would be to secure the financing to then create a multiplayer version of the game that incorporates a multi-table environment including all the associated requirements to accommodate individual games or game tournaments. Given the parameters of the game mechanics coupled with the lack of complex graphical requirements the students should readily be able to complete this project within the predefined time constraints. Further to that as a web professional with more than 20 years experience as a producer I would make for an excellent mentor for this project. Also as a bonus I have a son currently attending BCIT until the end of October. He would be available to answer any game related questions the project students might have subject to his course-related commitments.

STUDENTS/TIME REQUIREMENTS   Preference would be for a september start and would run the duration of that semester. Diploma Fall but I wouldn't be against an ambitious Degree Fall for the right situation

HARDWARE/SOFTWARE REQUIREMENTS
Dependant upon languages used

PROGRAMMING LANGUAGE(S)
This is a good question but I imagine that it could be C++ and likely Java but I would be open to suggestions

CURRENT WORK/ARRANGEMENT
There are no current arrangements

PREVIOUS PROJECT? no

PROJECT# F17-037

COMPANY PROFILE
PORTON is founded on the firm belief that everyone irrespective of race or geographical boundaries deserves access to a timely and affordable second opinion on critical health diagnoses or a treatment plan. We provide a Virtual Medical Second Opinion Service for Patients who have been diagnosed with a critical illness or want to validate a treatment plan. These patients can access a certified medical specialist in a timely [real time - video and voice] and affordable way ensuring peace of mind and reduced risks such as wrong diagnoses infections as a result of hospitalization unnecessary procedures and travel. Our patients are located in geographically challenged areas with limited access to specialist care. We also offer a culturally sensitive experience and in certain cases language options. Our services allow caregivers in the diaspora the options to provide quality healthcare to their loved ones at home.

PROJECT DESCRIPTION
PORTON's web app is a fully functional web application built to the minimum viable product. In other to get the product ready for commercialization backend application design and development is required this will improve application performance and enhance data analysis capabilities for the application thus improving overall user experience. Objectives - List of desired features - Create product backlog from step one   - Design all features - Build and test all features

STUDENTS/TIME REQUIREMENTS   No Preference

HARDWARE/SOFTWARE REQUIREMENTS
MeteorJS

PROGRAMMING LANGUAGE(S)
MeteorJS Framework

CURRENT WORK/ARRANGEMENT
All this currently work as designed but will need to be scaled up to accommodate more users and transactions including storage of media not currently stored.

PREVIOUS PROJECT? no

PROJECT# F17-038

COMPANY PROFILE
Q4 Financial Group is an organization of dedicated professionals providing professional consulting services to public and private companies in Canada US Europe and China in the areas of Corporate finance Regulatory reporting compliance Project Management and Commercialization of intellectual property. Q4 Financial Group has shifted its primary focus to the identification of Alternative Financing Solutions for private and public companies through our global network. This is our second phase submission on this project our main goal is to launch PIPELINE as soon as possible by fixing some major flaws.

PROJECT DESCRIPTION
The design and development of a professional project sharing platform; working title: Pipeline. Pipeline is to be a private and secure project listing service which allows its invite-only user base to post and catalogue all of the projects financing offered and required and public company resources. The system creates a forum for users to interact and read-up on the projects and investment opportunities currently being developed by their peers in business. The main purpose of the platform is two-fold. Firstly itâ€™s a time-saver for busy business execs (hence the mobile aspect) creating a place where colleagues and partners can quickly scan projects and opportunities of interest. Secondly itâ€™s a resource for users looking for either a project in which to invest or an opportunity where they might be able to connect a buyer and seller and earn a commission.   We have already had a group of students build the platform of the Pipeline website so what we need now is to address several flaws that need to be fixed before we can launch Pipeline.   Our First Priorities are to: *Have the ability to create and edit a document ie: an NDA to be signed or contracts. (possibly a doc hub integration) *Properly hide private information currently you can simply copy and paste   the "blurred information" to reveal the private information. *Give admistration capabilities to me and the other admins. *Give the admin accounts full access to make edits to menus etc. *Be able to Create a professional profile with photo. *Implement a messaging function.

STUDENTS/TIME REQUIREMENTS   Diploma - Fall 2017 Sept 13 weeks 4-5 students Part-time 400 hours Aug 20Â deadline

HARDWARE/SOFTWARE REQUIREMENTS
Currently using servers provided by Amazon web services.

PROGRAMMING LANGUAGE(S)
The technologies to utilize would be MySQL PHP javascript (or equivalent) and current technologies used in mobile applications.

CURRENT WORK/ARRANGEMENT
Daniel Petke(Chief administrator)403-909-6929 daniel@pipeline-listings.com will supply support for any questions for the students about what we need to get done to get Pipeline to Launch. In addition to Nile Lucas we also have access to several people with technological and domain knowledge who can help support students during the project.

PREVIOUS PROJECT? yes

PROJECT# F17-040

COMPANY PROFILE
Quupe is an online and mobile sharing-economy platform where people can rent things from their neighbours. For young urban adventurers who can't find the stuff they need at a price they can afford Quupe is an online rental platform that provides a convenient way to get access for an affordable price. Unlike bricks-and-mortar rental stores that either don't have the right equipment or make it too expensive our app connects the borrower to local lenders who have unique equipment and are willing to lend it at an affordable price. Our mission is to enable the whole world to share resources. We launched in February 2017 in Vancouver B.C.

PROJECT DESCRIPTION
Quupe is expanding its Peer-to-Peer (P2P) web platform to a Software as a Service (SaaS) market. This requires some major feature implementation as an add-on to the existing system for business and product growth. As an example prioritized features required for SaaS implementation include: an hourly booking calendar a multiple-items cart and a subscription account system. We will implement each feature as a module and would like to have a dedicated team work on one or more of these which will be integrated with our core platform. We have built our platform on Google Firebase and are expanding our backend infrastructure to Google Cloud Platform. Our dev stack includes HTML CSS and JS for frontend Node.js and PHP for backend and nosql JSON database. Our platform runs as a web app and has a wrapped version for our iOS app. Some APIs that we use include Google Maps Google Vision Stripe Mandrill and Intercom. We will have a dedicated technical resource available for help and support throughout our project duration.

STUDENTS/TIME REQUIREMENTS We are looking for a Sep 2017 start date with project delivery expected to be around December 2017. Some possibility to continue on with Quupe into January and beyond.

HARDWARE/SOFTWARE REQUIREMENTS
There are no hardware requirements. For software any web development tool (dreamweaver brackets sublime etc.) sourcetree for git Gmail account for firebase access and Slack for team communication.

PROGRAMMING LANGUAGE(S)
HTML5 CSS3 JavaScript jQuery Node.js PHP

CURRENT WORK/ARRANGEMENT
Everything starts with a plan and a prioritization map with detailed user stories as feature requirements. Scope is defined and established on a timeline with milestones. We use github for version control and all our features are created on new branches. We have a test staging and production environment and are in process of adding continuous deployment system.

PREVIOUS PROJECT? no

PROJECT# F17-041

COMPANY PROFILE
Custom software (mobile/desktop/IoT) and hardware developers with a focus on accessibility and natural user experiences.

PROJECT DESCRIPTION
Our goal is to create an minimum viable product of an iPhone augmented reality "game" for a store. The successful applicant is competent in using their chosen development platform to create an app that will display 3D objects at their real-world coordinates while seeing the camera display in the background. Think Pokemon Go "catching" portion. Further functionality will be discussed under NDA. The app should be able to communicate with a cloud database.

STUDENTS/TIME REQUIREMENTS 3-4 months starting in September.

HARDWARE/SOFTWARE REQUIREMENTS
iPhone iOS 11 compatibility

PROGRAMMING LANGUAGE(S)
C# MySQL or MSSQL open to other options

CURRENT WORK/ARRANGEMENT
Graphic UI and sound elements will be created by our team. We use Xamarin and Unity3D for mobile applications but if you want to use something different we are open to your suggestions. The client's POS may need to connect with it at some point but not critical for the MVP Azure or AWS database setup for managing real-time updates with asset locations and other details.

PREVIOUS PROJECT? no

PROJECT# F17-043

COMPANY PROFILE
The Royal Columbian Hospital (RCH) is the oldest hospital in BC established in 1862. It is one of the busiest in the Fraser Health Authority seeing 60 000+ patients and 100â€™s of thousands of visitors every year. RCH is the main trauma center for the lower mainland and is the only hospital in the province with cardiac trauma neurosciences high-risk maternity and neonatal intensive care all on one site. We attend to the needs of some of the most seriously ill injured and trauma patients in the province and is ranked as one of the top hospitals in Canada. RCH located in the city of New Westminster overlooks the Fraser River and is the only hospital in the Lower Mainland that is immediately adjacent to a Skytrain station and a very short distance from the Trans-Canada Highway. It also has a helipad for critical medivac patients.

PROJECT DESCRIPTION
The objective of this project is to provide patients and visitors with a native mobile app and/or a HTML5 solution that provides directions for patients and visitors to find various locations within the hospital utilizing an Indoor/WiFi positioning system. At a future date would also assist visitors in finding patients within the hospital. The application would have a very basic UI (patient name public locations within the building) and would support a small selection of several major local languages and the ability to add other languages in the future. The project would have definable milestones so if the project can not be fully completed including testing by the hospital IT department and implemented a future project team could pick up the project and move it forward. The solution would include an Indoor positioning system as outlined in the Wikipedia articles listed belowâ€¦ The solution must work on Apple iOS or Android other mobile platforms for the futureâ€¦. https://en.wikipedia.org/wiki/Wi-Fi_positioning_system https://en.wikipedia.org/wiki/Indoor_positioning_system There will be some basic database development where some data will be pushed into the database whenever there is an update to a location of a hospital facility or patient location. There will also be some data communications issues to address and some technical programming.

STUDENTS/TIME REQUIREMENTS   no preference, Fall 2017 program. As there are a variety of technologies it may be best to have a team or 4 - 5 working on the project. If one person has all of the requisite skills it would certainly be considered for a full-time project.

HARDWARE/SOFTWARE REQUIREMENTS
Android mobile or Apple IOS Opensource software

PROGRAMMING LANGUAGE(S)
Whatever is deemed to be appropriate for the application.

CURRENT WORK/ARRANGEMENT
Manual system for wayfinding signs maps and volunteers; nothing is automated.

PREVIOUS PROJECT? no

PROJECT# F17-044

COMPANY PROFILE
My name is Stephen C Langhjelm founder of SCL FITNESS (VFL Health & Wellness). I'm an independent personal trainer who trains clients in the North Shore and Downtown Vancouver areas. I offer individual and group training private studio training and online coaching. Outside of personal training I'm focused on various creative projects and seeking collaborative opportunities related to the fitness industry.

PROJECT DESCRIPTION
I'm looking to work with a team of talented dedicated and creative students to develop a fitness app related to our local area. This is a unique app idea that I've envisioned for the past two years. I'm excited to finally bring this concept to fruition. Simply put this app deals with distance and time with a unique twist. It will involve developing predictive algorithm's that converts real time (at the click of a button) into minute decimals then back into min/sec as running • time continues. At least one team member will possess the required skillset to actualize this internal functionality. Other tasks will include (but not limited to) app navigation and mapping app graphics and design web development (time-dependent) coding required to launch said app on both Iphone and Andriod platforms for broad customer use and any other related areas of app development. Beyond app and web applications some work will be done with social media marketing and logo design. The goal of this project is to create a plan of action which will be implemented as a team from idea to market in the given timeframe. To aid this process I've created an informative project portfolio that displays my complete idea in a concise and applicable manner. It includes a breakdown of app purpose app functionality app navigation and mapping conceptual screenshots for app graphics and design related web development structure social media marketing and overall project planning. Copies of project portfolios will be given to each team member upon our first meeting and where its contents will be discussed and expounded upon. Note: An NDA & IP Agreement must be signed by all project participants. Thank you for taking the time to read the above in consideration of this project. I'm looking forward to hearing from anyone interested and working with a future team!

STUDENTS/TIME REQUIREMENTS   September Semester: 400 hours

HARDWARE/SOFTWARE REQUIREMENTS
Hardware: Mobile Phones Tablets Etc. Software: Andriod & iOS platforms

PROGRAMMING LANGUAGE(S)
English (I am interested in creating a multi-lingual app once the English version is complete perhaps this can be another project at a later date) Coding: Appropriate coding for android and iOS platforms

CURRENT WORK/ARRANGEMENT
Tasks will be delegated after our first meeting where we'll discuss the team project.

PREVIOUS PROJECT? no

PROJECT# F17-045

COMPANY PROFILE
We are a tech startup with a team of dedicated and passionate software developers. We develop solutions pertaining to mobile and web technologies with focus on application integration. Innovation is our kryptonite.

PROJECT DESCRIPTION
Optimizing ecommerce management and increasing online sales. The online retailers spend way too much time in uploading their products including product details. Different ecommerce platforms require different sequence and fields to be filled out for products upload. We are trying to come up with a solution to automate this process. The first phase will be the web development. The project includes the following but further discussion with the students will determine how much could be accomplished: research and development regarding the APIs provided by the major ecommerce platforms such as:Amazon Etsy Ebay etc design the UI/UX integration with available ecommerce APIs developing the back-end creating the database for retailers and their products/inventories secure login for the retailers parsing and formatting Json and/or XML to allow retailers to upload only once their products and then we will automatically display those products on multiple commerce sites.

STUDENTS/TIME REQUIREMENTS   No Preference

HARDWARE/SOFTWARE REQUIREMENTS
Software: MySQL RESTful services Github Eclipse Android SDK IntelliJ Hardware: own a laptop and/or Desktop

PROGRAMMING LANGUAGE(S)
Java Javascript PHP

CURRENT WORK/ARRANGEMENT
This is a new and innovative project. However our team has significant experience in this field and similar projects. We usually have an informal and frequent communication with multiple commits per day. The CTO offers support and guidance. We are flexible regarding technologies and suggestions. We are also looking for potential developers to join our company. The projects bring us lots of satisfaction and at the same make our lives more fun and interesting. We love developing innovative solutions and being part of the Vancouver tech entrepreneurship community.

PREVIOUS PROJECT? no

PROJECT# F17-046

COMPANY PROFILE

SkyBox Labs is a game development studio based in Vancouver British Columbia. We've developed alongside some of the industry's best publishers on world-class franchises like Minecraft Halo and Age of Empires. We also develop our own games – such as TASTEE: Lethal Tactics. Our amazing publishing partners include Microsoft DeNA Electronic Arts and GungHo. SkyBox covers all of the traditional game development disciplines with a team of over 90 developers. We work on all of the major gaming platforms (console mobile and desktop) and specialize in creating new game concepts from scratch. Design is one of our major studio strengths especially when it involves bringing fresh ideas to new customers.

PROJECT DESCRIPTION

We are looking for a team to help us build 1 or 2 prototypes of Idle (clicker) games like Adventure Capitalist Cookie Clicker and Realm Grinder. Design and art provided by us passion and programming provided by you! Prototypes will be released as beta software to gain feedback from users. Build using Unity in C# (other engines will be considered) in 2D Team will be building 1 or 2 prototypes depending on scope Design and Art will be provided Senior Engineering assistance available from Skybox Team input on game design encouraged! You will be expected to take a game design from our game designer and using Unity implement the entire design into a functional prototype that will be released on a website to users for feedback as a beta/functional prototype. Complete the software implementation end-to-end as defined by our design documents Meet with our game designer frequently to get feedback on the state of the game Implement the Art and Audio into the game (provided by Skybox) Manage tasks and schedule to complete the prototype on time Fix bugs that are found by our QA team Please note that students will be asked to sign a "Student Practicum Confidentiality/Intellectual Property Agreement".

STUDENTS/TIME REQUIREMENTS   Sept Term 13 weeks

HARDWARE/SOFTWARE REQUIREMENTS

Must have PC's capable of running Unity 3D. Familiarity with GIT source control. Unity licenses ideal but can be provided if needed.

PROGRAMMING LANGUAGE(S)

C# Unity Game Engine (will consider other engines as well)

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? no

PROJECT# F17-047

COMPANY PROFILE
St. Mary's School is part of the Catholic Independent Schools of the Vancouver Archdiocese (CISVA).
Our school has been providing education for over 80 years. It teaches students K-7.

PROJECT DESCRIPTION
St. Mary's School is an independent school located in Vancouver a short distance from BCIT.
Educational software is one of the hottest new markets out there. Students will have the unique
opportunity to participate in this field. We are looking to develop an app to build the link between
school and home. Currently our school has been progressive in its adaptation of new technologies not
only in the classroom but in communicating with our parents and community.   The purpose of this
project is to further develop our school's mobile app. The current app was developed by former ISSP
students for iPhone Android and Windows all at the same time using an exciting new technology called
Xamarin. https://xamarin.com/ We want to develop a new app or extend our existing app to enable
teachers to record incidents. The app will consist of drop down/auto fill boxes to make completion of the
form quicker and easier for teachers and staff. Ideally it will be link to our student database have the
ability to take a picture of the injury and notify the appropriate personnel of the incident.   This an
exciting project new in the education field. You will receive support from St. Mary's School through the
entire process.

STUDENTS/TIME REQUIREMENTS   No Preference

HARDWARE/SOFTWARE REQUIREMENTS
Windows PC with Visual Studio MAC with Visual Studio

PROGRAMMING LANGUAGE(S)
C#

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? no

PROJECT# F17-048

COMPANY PROFILE
Current Business Operations: Food delivery service based in Surrey BC and extending services to Langley White Rock Cloverdale Burnaby New Westminster   Richmond Burnaby and Vancouver

PROJECT DESCRIPTION
Customer should be able to order through
o Webpage: When the orders are placed through webpage it should send a notification to the dispatcher through the app or text about a new delivery
o App
o Phone call: Dispatcher can enter the info into the app (dispatcher module) (similar to the case as a customer would through the app) and that would notify the driver through the driver app module.
Thus customer places the call for delivery services either through phone call, webpage, or App.
The avail driver accepts the order for new delivery and this in turn sends the notification to the customer through the app with the following info:
- that the delivery has been accepted
- ETA
- cost of the delivery charge depending on
o #of stops (1-12$ 2-20$ and so on)
o urgency of the delivery e.g. Rush etc
o Amount of the order. Plus the cost of food
- Requesting customer to indicate the mode of payment: Cash / Debit / Email transfer (The functionality should be incorporated into the app and should have security feature)
The driver then purchases/picks the item from the Restaurant or Store e.g. Fast food restaurant / gas stations / corner stores etc.
Indicates through the app that the delivery has been picked up. And then delivers to the customer.
Once the driver is done the delivery he should be able to notify through the app: Delivery is done; And be able to bring himself in the avail mode for the next delivery.
3 App Module and Webpage Development:
Customer o What fields and functionality o Customer can place order for home delivery/restaurant.
Initial info needed: Name, address, Phone number, Address of Restaurant - Make a drop down for common stores/restaurants/corner stores/gas stations etc. (Store the 10 last recent orders) Distance (how would this be done???) o If more than 6 km then calculate automatically. Mode of payment o Cash/debit/wire transfer/mcard (3% surcharge if paying by mcard). Stops, amount of food, urgency/short notice, Approximate time needed. Misc field: Customer should have the functionality of giving feedback/rating for the service and the driver - once the delivery is done (Unsatisfactory/good/ok/best, Fast accurate order, Courteous friendly service-driver points, To be able to like us on FB, Twitter etc)
Dispatcher o What fields and functionality: should be able to see which driver is logged on, should be able to see what all drivers are currently doing deliveries, should be able to see the location of each driver at any given time; should be able to get notification once the deliveries are picked up and once done.
At the end of the day, should be able to sort the deliveries by driver; sort the deliveries by mode of payment; sort the deliveries by stars given; sort the deliveries by each day; sort the deliveries by restaurant etc. should be able to see the customer stored info; be able to schedule (in a spreadsheet) the drivers for the week and send the notification to the drivers about the assignment o indicate the

penalties for missing days o rules for drivers o indicate the penalties for short notice o Driver o Name number ID to be assigned.

Should be able to log in. The login will only be granted by the dispatcher on a day to day basis (meaning administrator/dispatcher should give the OK before the driver can login) o What fields and functionality. once the customer places the order it should make the delivery available to the driver; once the delivery is accepted by the driver it should be able to recommend the nearest locations for the services asked: e.g. nearest McDonald, chevron etc.

Once the delivery has been picked up the driver should be able to indicate to both the customer and the dispatcher (through the app). also the driver should be able to alert the customer 5 mins before arrival with the total amount due and the mode of payment so that the customer can be ready with the payment. driver should be able to enter the cost of food upon pick up and this

STUDENTS/TIME REQUIREMENTS   No Preference

HARDWARE/SOFTWARE REQUIREMENTS
please advise

PROGRAMMING LANGUAGE(S)

CURRENT WORK/ARRANGEMENT
Customers and restaurants places the call to the owner/dispatcher who then takes the required info and passes it on to the available driver. the payment is accepted through cash or debit/credit at the door.

PREVIOUS PROJECT? yes

PROJECT# F17-050

COMPANY PROFILE
We are a SaaS solution development company focused on an ERP for Oil and Gas industry. Our solution is an on-site fuel delivery management system. All developed in house in North Vancouver office. We use Symfony JavaScript bootstrap MySQL etc for our development.

PROJECT DESCRIPTION
we need to add new APIs to our solution and connect them to our Mobile app.

STUDENTS/TIME REQUIREMENTS   no preference. 400 hours - Fulltime / Parttime.

HARDWARE/SOFTWARE REQUIREMENTS
PC / Mac

PROGRAMMING LANGUAGE(S)
PHP Symfony React (Mobile app development) JavaScript MySQL

CURRENT WORK/ARRANGEMENT
We do have our product manager who adding all the details in our project management (PM) tool. Every task has to be picked up from our PM platform and time log and report back to the PM system.

PREVIOUS PROJECT? yes, Some part is done with a previous student who hired on a full-time position for last few months. But he is going back to school for his new degree.

PROJECT# F17-051

COMPANY PROFILE
Temenos Group AG (SIX:TEMN) headquartered in Geneva is a market leading software provider partnering with banks and other financial institutions to transform their businesses and stay ahead of a changing marketplace. Temenos only creates software for banking and finance. And we've been doing it for more than 20 years. This makes us true specialists with deep domain knowledge and razor-sharp focus. We place our clients at the core of what we do. Everything starts and stops with our clients' goals â€" we can't meet our goals without meeting theirs. Temenos is the leader in its market. In 2016 Temenos topped both IBS Intelligence league table and the Forrester pyramid for sales of mission critical software for the banking and finance industry. Today Temenos is the fourth-largest software company in Europe with profits of over USD 185m and a market capitalization of more than USD5bn.

PROJECT DESCRIPTION
In order to provide timely and useful financial information to support our core banking system and to serve banking customers better the Temenos Analytics team is building a stack of analytical applications from data warehousing to AI and analytics visualization delivered through a web interface. We are always on a look out for passionate and talented people and ideas for developing better and innovative analytics solutions. Currently we would like to connect to BCIT students to provide opportunities for students to gain industry experience on building modern large-scale web-based analytics solutions from end to end to solve real-world problems as well as opportunities for Temenos to work with local students.   As part of our corporate digital engagement strategy we have a project undergoing to modernize our web-based analytics tool to author design and search financial information integrated with our banking system. We would like to work with BCIT students on this project. Objective/ tasks   To deliver a mobile application on supported mobile devices to receive important notification for ETL process and view financial dashboard.   To help testing on a multi-tenant web based BI application.   To design and deliver a micro-service web API to provide data to feed any mobile client or web client.

STUDENTS/TIME REQUIREMENTS We would prefer to start the project for the September period for an initial duration of 13 weeks.

HARDWARE/SOFTWARE REQUIREMENTS
cloud environments and software provided as needed.

PROGRAMMING LANGUAGE(S)
Preferred skills Required:: â€¢ Web programming experience (e.g. HTML ASP.Net etc.) â€¢ Client side scripting (e.g. JavaScript) â€¢ Database querying language (e.g. SQL) â€¢Familiar with one object-oriented programming language (C# java etc) Optional

CURRENT WORK/ARRANGEMENT
Our commitment â€¢ Commit to provide friendly and professional mentoring to students. â€¢ Commit to give opportunities/ supports to students to explore and research their project on hand and develop their potentials. â€¢ Commit to engage students to work with professional developers to have them understand the whole development cycle.

PREVIOUS PROJECT? no

BCIT COMPUTING ISSP PROGRAM – FALL 2017 TERM PROJECTS AVAILABLE FOR COMP3900 AS OF SEPT 5, 2017

PROJECT# F17-052

COMPANY PROFILE
TerraTap Technologies is a developer of mobile location based applications specializing in the Internet of Things IoT.

PROJECT DESCRIPTION
This is a continuation of a prototype system for engaging with people with Alzheimer's disease. The current prototype uses a Raspberry Pi to detect the presence of an iBeacon and then display videos that are of interest to the person. The idea is that the video can attract their attention and prevent them from wandering. This prototype has been tested and now we need to expand it to address some issue and add some features. The additions are mainly around the idea of how long should the videos play for putting in time periods when the videos should not play (eg. not at 2:00am!). The new features are focused more on the management side. This will consist of a web front end using FireBase to allow family members to manage what videos a person should see.

STUDENTS/TIME REQUIREMENTS   September 2017.

HARDWARE/SOFTWARE REQUIREMENTS
Raspberry Pi (1 provided) Python HTML 5 CSS 3 JavaScript Firebase

PROGRAMMING LANGUAGE(S)
Python on Raspberry Pi. (existing codebase) HTML 5 CSS 3 JavaScript Firebase (all new code)

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? yes. We currently have a prototype produced by a previous ISSP project and it has been tried out in a care facility with positive feedback.

PROJECT# F17-053

COMPANY PROFILE
TerraTap Technologies is a developer of mobile location based applications specializing in the Internet of Things IoT.

PROJECT DESCRIPTION
Currently cities (and other entities) provide Open Data that is data that is available for developer to use to create websites and mobile apps. The reality is that each city has a different set of Open Data and that even when they have the same data sets the format is different. This project is to create the foundation for converting from a given Open Data data set format to another format. The team will create ideal JSON or GeoJson file formats for various open data sets as well as the code hosted publicly on GitHub as Open Source to convert from city data sets to the ideal data sets. The project team will also be responsible for finding various data sets to convert.

STUDENTS/TIME REQUIREMENTS   September - December 2017.

HARDWARE/SOFTWARE REQUIREMENTS
Aside from the data formats languages and GitHub there are no additional requirements. Continuous Integration would be a bonus.

PROGRAMMING LANGUAGE(S)
Data formats: - JSON - GeoJson For the code to convert from a city dataset to the ideal format: - Java (for Android though should run on any supported platform) - Swift (for iOS though should run on any supported platform) - JavaScript (for Web) - If

CURRENT WORK/ARRANGEMENT
This is a brand new product zero code has been written this far.

PREVIOUS PROJECT? no

PROJECT# F17-054

COMPANY PROFILE
The Salvation Army Addictions and Rehabilitation Centre (ARC) is a social service provider serving some of the most vulnerable people in Victoria. Our mission is to provide the highest level of assistance dignity and compassion to those we serve. Our services include providing 56 emergency shelter dorm beds and 46 transitional housing individual rooms for men in need. The residents have access to three meals per day spiritual care on-site counselling and caseworkers to provide support and referrals. During their stay staff works to empower residents to continue on a path of healing as many of our guests are working to overcome addiction mental health issues past trauma and chronic homelessness.

PROJECT DESCRIPTION
We are requesting help completing a database that tracks residents who have stayed / are staying at the ARC payment of program fees wake up requests and a small number of case notes. The database ARCWay was designed by BCIT students for a past project and we love it! Unfortunately we have found some glitches that render ARCWay unusable. Our project proposal includes but is not limited to the following: 1) Fix the registry so we can see past registries. The function is not currently working. 2) Fix the lunch list so that it reflects client bagged lunch requests. Presently the lunch list is always shown as empty despite having lunch requests entered into the system. 3) Edit the program so that all buttons and pages fit on a screen. Some of the pages currently donâ€™t fit in the window so certain buttons are half off the screen. 4) Create a function so clients can be retroactively book clients into the system 5) Create a function that allows system admins to add custom items to a point of sale. For example we sell pods of laundry soap and need to be able to track these sales. 6) Fix the client search function which currently has a few small glitches.

STUDENTS/TIME REQUIREMENTS   No Preference

HARDWARE/SOFTWARE REQUIREMENTS
Hardware is existing.

PROGRAMMING LANGUAGE(S)
ARCWay is in SQL server and coding will be required.

CURRENT WORK/ARRANGEMENT
We presently use an old database system that can no longer be updated and is running very slowly.

PREVIOUS PROJECT? yes. To-date previous students have created the database including functions for maintaining a registry searching for clients managing lunch and wake-up requests processing payments and refunds maintain a history of clients who have stayed at the AR

PROJECT# F17-057

COMPANY PROFILE
Headquartered in Vancouver British Columbia White Spot is a BC legend. Founded in 1928 when Nat Bailey launched Canadaâ€™s first drive-in restaurant at Granville and 67th the chain now sees more than 17 million guests annually at 130+ White Spot and Triple Oâ€™s locations throughout B.C. Alberta and Asia and employs more than 3 500 people.

PROJECT DESCRIPTION
This project will focus on developing a system to support the risk management activities in the organization. White Spot Limited has a current information management system (theHUB) that will need to integrate with this new system.

STUDENTS/TIME REQUIREMENTS   no preference

HARDWARE/SOFTWARE REQUIREMENTS
Application will run on â€¢ Windows Server 2008 R2 â€¢ IIS 7.5 â€¢ SQL Server 2014 Recommended Tools â€¢ SSMS 2014+ â€¢ Visual Studio 2017 â€¢ GitHub Repository

PROGRAMMING LANGUAGE(S)
C# (ASP.Net Web Application â€" MVC 5 & Web API) T-SQL (SQL Server 2014) JavaScript (Vue.js or any modern JS framework if comfortable)

CURRENT WORK/ARRANGEMENT
We currently have 5 forms that are filled out by hand: â€¢ Property Damage â€¢ Guest Incident â€¢ Suspected Food Illness â€¢ Foreign Object â€¢ Health & Safety The process and documentation surrounding our incidents are currently managed by one individual with a paper based filing system. There is no centralized system for managing communication or reporting on incidents.

PREVIOUS PROJECT? no

PROJECT# F17-058

COMPANY PROFILE
Xanatos Marine is a world leading software developer for maritime surveillance and waterways managment. Our software is used around the world providing safety security and environmental stewardship in countries like Canada USA Indonesia Philippines Thailand Mexico and many others. Fusing relavant sensor data onto a robust electronic chart we can monitor in real time most vessels.

PROJECT DESCRIPTION
Xanatos has a fairly attractive web site now it lacks in content and video graphics. Also we would like to have some online introductions to certain features of our system. In addition we have a real time Maritime Monitoring system that is currently being used it needs to have many new functions added to it and transitioned from Joomla to another platform which we will discuss with the student/s. This system includes input from a number of sensors which are professionaly displayed on OpenStreetMaps in symbology used by mariners around the world.

STUDENTS/TIME REQUIREMENTS No Preference. After a discussion on what is needed the students should evaluate what would be needed and the timeframe can be decided at that point.

HARDWARE/SOFTWARE REQUIREMENTS
This is web based.

PROGRAMMING LANGUAGE(S)
Likely we will need a few languages from C# to HTML

CURRENT WORK/ARRANGEMENT
The program has been developed in our office in Thailand. The person who developed the program has taken on some new tasks and will not be continuing the develpment of the product for some time. We wish to continue and advance the product now. The system - Titan Viewer - currently has a host of features that are in operation worldwide. Some of the features that are currently operational is Display of real time positioning of ships history replay alarms zone guards beginnings of ship arrivals report ship departure report and many others. We have a full list of requirements and samples of the new features that we would share with the students and will explain what they mean need and the importance of them. A few of the things that we will want to accomplish is to have a live Video Feed being displayed at the locations perhaps a feed of a radar being overlaid on the map and other interesting and challenging tasks.

PREVIOUS PROJECT? no

PROJECT# F17-059

COMPANY PROFILE
Zmuggler is an e-commerce/service company designed to become the market leader in delivering unique non-perishable grocery products that are not readily available in stores in Metro Vancouver.

PROJECT DESCRIPTION
We have a UI that is easy for customers to shop. However we need to liven it up and go beyond the norm of a typical e-commerce platform UX . What we envision is that our storefront will have a social aspect where customers can rate and comment on products. Think Pinterest but on the store application! We have the UX and designs you will develop this groundbreaking difference and see it live in the market. Of course you are more than welcome to give input to the designs too!

STUDENTS/TIME REQUIREMENTS   Diploma - Spring

HARDWARE/SOFTWARE REQUIREMENTS
Have own PCs Internet Access Google Hangout

PROGRAMMING LANGUAGE(S)
Relevant skills: - Using a DVCS like git comes natural to you - You know Angular 1.X framework - Detail freak when it matter of styling and CSS (using SASS Compass and Bootstrap) Optional - Phonegap/Cordova and Ionic knowledges would be great!

CURRENT WORK/ARRANGEMENT

PREVIOUS PROJECT? no