

Project Ideas These notes are loose and are only meant to serve to stimulate (:D?) your mind. If you have suggestions for other things that we IT PLFs could do, or that STIMulate could do as a whole then please add! Im thinking these projects would be undertaken either over the mid-year break or next semester. In terms of compensation, we have been discussing either payment or an undergraduate project where you will receive a grade from a supervising lecturer. Either way, by working on these projects you are both honing your IT skills and growing your personal portfolio.

1 Queue system for drop in students

Develop a First In First Out (FIFO) system for queuing students. Sometimes a PLF will accidentally support a student who just arrived and neglect students who have been waiting. With a software queue system we could improve fairness and operational efficiency. Perhaps, when a student arrives, their name, student, and skill they need help with is recorded by the duty host, and then they begin waiting. All PLFs can see a list of students in the queue filtered by wait time and skill. When ready, a PLF can pop a student off the queue, updating the duty host's screen, and then the duty host directs them to that PLF. This would also save time PLF's time because they would have their "record a session with a student" form prefilled, the only thing left to fill out is the comments from the student.

2 Barcode scanning with a smartphone app

This could integrate with the above queue system, but it could work well on its own too. By scanning students ID cards to conveniently record sessions between PLFs and students, we increase operational efficiency. Data collection and form filling would be faster, we could potentially even extract interesting meta data from ID cards to improve our statistics.

3 Migration of web services

Migrate the STIMulate website from QUT Services to our own website. Why? Because why not?

4 STIMulate app

Mobile app version of the STIMulate webs services for PLFs. For students too maybe? Everything that a PLF, student, or even duty host uses could be copied to the mobile platform where there is potential for things like alerts, convenient session recording, skill updating, etc.

5 Data Visualization

Provide visualizations of various STIMulate data; Not only out of interest but to also help make Ians life a bit easier (and Laurences). If Ian would like more, specific types of data with interesting and advanced statistical analyses, this could be a great project for students interested in statistics and science.

6 Git Repository with sample/test scripts

The math stream has worksheets and stuff; it was suggested that something similar be made for the IT stream. This would be housed on Git (here for the moment: <https://github.com/scorpioncoder/Git-STIMulated>) where any IT plf can add/change it. Alex Barnier (<https://www.facebook.com/alex.barnier.5>) is the current owner but if we made a STIMulate “organization” (actual account type with various interesting features) on GitHub, then we could have official STIMulate repositories for the IT stream. Such repositories could include useful and popular code examples with tutorial guides to help PLFs demonstrate concepts, and help students themselves by providing more resources.

7 Sign In/Out for PLFs

Perhaps we could use the barcode scanners for signing in and out for PLFs, effectively acting as a replacement for logging shifts on the website. The two forms (recording student session, and recording PLF session) are a disincentivizing factor for PLFs - it’s annoying, let’s make it less painful with an IT solution like this.

8 Review of Hours (not significant enough for a project unit)

Section of the STIMulate website to allow PLFs/Duty Hosts to see all the hours they have logged so far (to see if they have missed any).