

# SERP Group 9 - Retrospective Report 5

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**Meeting time:** 4:30pm 23rd Oct 2020

**Attendees:** Basil, Daniel, Josh

The meeting was conducted on the 23rd of October, 1 day after the client meeting. The main items of discussion were:

- UI clarifications from client meeting feedback
- Final development items and priorities
- Ingenuity poster progress

## **What went well:**

This sprint saw major changes in the user interface and corresponding data visualisations. Modifying these components of the client side product were high-priority after discussions and feedback from previous meetings, catalysed by second-thoughts from the client, development team and supervisor regarding the “dot” visualisation. The move saw a more traditional form of data communication using existing javascript chart libraries to produce more effective historical line, horizontal/vertical bar and doughnut graphs. Optionally selectable by the user. These all saw positive feedback from everyone in the recent client meeting.

Along with this was the general interface design which prior, was extremely barebones as far as the main simulation tool was concerned. Front-end implementations of both the instructor interface and new setup pages made significant progress this sprint, and were functionally connected to operate with the server-side (Node) and the python logic model.

The combined efforts of these developments resulted in a functional demonstration of simulation tool, from setup through to operation of most core functionality expected in the final product. Though the student (other users) view and behaviour still needs to be implemented, it will borrow a large amount of its implementation from the instructor view, with additional permission restrictions to the control of assigned cells.

## **What was lacking:**

In terms of the model, we were missing final features relating to policies and travel. In regards to the policy implementation, some work still needs to be done on the backend that will enable users to affect the equation variables, and hence model behaviour. This work also needs to be carried over to the front end where the user will be able to activate the policies on the UI. Travel is also another component that needs some work, which will enable the transitions of populations between cells, with the same ratios of the SEIRD values as the cell they travelled from, accounting for infected/exposed travellers.

More work needs to be done on the setup page as well, mainly related to bug fixes and UX improvements. There are some issues and unexpected behavior when users frequently go back and forth between pages, as well as incorrect input breaking the model when passed. These issues will need to be alleviated, as well as creating required fields that will check the input entered so that invalid data will not be passed to the model. In regards to improving the

UX of the model, we want to provide more information about what the user is entering in each input with information that appears when hovered, as well as tidying up the user interface so that it is more intuitive.

Another area that needs to be implemented is multi user behavior and the invitation process. Currently the simulation can only be seen from the instructors point of view, however there needs to be more limited views that normal users will have access to. These need to be implemented along with the server infrastructure to support it. Although this may seem a big project, much of the user interface has already been developed in the developer view, and it will just be a matter of showing a limited version.

One small tweak we want to add is the ability to see a combined view of all the cells in its own cell, so that the user can get an overview on the entirety of the project, and potentially perform comparisons between a particular cell and the overall. I.e. if the cells were Australian states, SA, NSW, VIC etc. the cell displaying the combination of them would be Australia.

#### **What are you planning on next (final development):**

The remaining development that we are planning to complete before the end of the project is primarily around two different areas. The first being the systems and development around policies in the model and that of multiple users and student views. One of the main things we need to implement to the python model is the functionality of different policies. This is one of the key requirements we were aiming for our project to have for multiple users to interact with. These policies are already being set up and transferred to the server from the client, however the current version of the python model does not yet support these policies.

Along with that we need to implement support on the web server side support for managing and allowing for multiple users to connect to the webserver and control their individually assigned cell. This will involve the development of a login page for the individual user access codes to be entered, and the development of the student view which will be mostly just a modified version of the instructor interface.

Finally, we are going to finish up work on the other aspects of the project, primarily finishing up the Poster and preparing for the upcoming presentations. Along with writing our final group report.