

Bi-Weekly Report 2

10th February 2017

Team 1: Microsoft Capita Data Visualisation Project

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OVERVIEW

Over the past two weeks, we focused on dividing the tasks of development between the three of us. We selected the exact widgets to be used in the visualization of data and split the tasks so it can be done more efficiently. We also started properly collaborating with Team 2 on connecting to their database server to visualise the info received from their database and being able to query it from D3. We also managed to connect to an online dummy database to be used over the cloud using D3. We are now waiting for James to provide us access to the desktop application for SIMS Discover.

MEETINGS

10th February

Some members of our team met with Team 2 to see if we could push them to finalise how they would send data from the backend to the frontend, as well as what form the data would take. We deliberated between sending data that included a GUID for every student and data that simply consisted of numbers and axis labels. We made sure to remind Team 2 that as part of Discover's functionality is to be able to drill down into the data to be able to view every student, the former option would be ideal for our purposes. They then informed us that though they agreed, they are worried that sending potentially millions of rows of data could make Discover 2.0 incredibly slow or even crash the user's computer and they are having issues working out how to make the process fast and efficient while giving us what we want out of the data. In conclusion, we clarified that they will be using JSON to send their data and from now on have decided to give Team 2 some room to breathe by halting our work on the frontend/backend interface, and directing all our focus towards visualising data using a dummy database of our own until Team 2 says otherwise.

TASKS COMPLETED

- Connect to a sample online dummy database.
- Decided how to split the tasks between the visualization widgets to be used.
- Added algorithms for more charts in the UI.
- Created code for unzipping data from the web.
- Created code for connecting to Team 2's server (although cannot be tested yet).

PROBLEMS

- Querying and visualizing the data from Team 2's database.
- Waiting for Team 2 to solve performance issues.

FUTURE PLAN

- Properly communicate with Team 2's server to visualize data.
- Improve on the visualization of available charts.
- Add more functionalities to the Toolbar.

INDIVIDUAL REPORTS

Carlota Ortega Vega

Over the past two weeks, I have been working on the visualisation part of the application with Fasbeer. I am focusing on building Venn diagrams and pie charts using data from a database. I have been using a dummy local database using phpMyAdmin and then used php to get JSON values (since this was the original data format we thought we would use) and use those for the visualisation with D3.js. However, since Team 2 has changed their data format and are going to be sending us XML files, in the next two weeks I will adapt my code to accept this type of data instead of JSON. I have also been in contact with our client to get more information on the user interface in order to improve the toolbar of the application.

Bethany Graves

Since the last bi-weekly report I have managed to create code that will in time unzip zipped data that Team 2 will send through to us. I also met with Team 2 to discuss how they will send data to us and in what format it will be sent. I also created the code to connect to Team 2's database but

cannot implement or test it until Team 2 have sorted out issues on their end. I have since joined Carlota and Fasbeer in the visualisation side of the project.

Fasbeer Eskander

Over the past two weeks, i looked into improving the algorithms for visualization of charts. Carlota and I split tasks of creating algorithms for visualization widgets between the two of us to work on. I have also created an online sql database and was able to use json queries to receive data from the online database and visualize them onto the canvas. However some problems occurred when trying to connect to Team 2's data server which we are looking to resolve in the coming weeks after they have decided on how to move forward. For now we will be focussing on perfecting the visualization algorithms using an online dummy database, either on phpmyadmin or on a database server.