Microsoft Capita Team 2 / Bi-Weekly Report 9

Date: 10/03/2017
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Sprint 4

Overview

During the fourth sprint we further optimised our system. We further upgraded the Set Engine with a decision tree to create a greater variety of sets. The parser for parsing requests has been integrated with the REST service into one system. We also created a new API website.

Meeting summary

Tuesday, 28 February 2017

We met in the labs to discuss what we will need to do next to optimise the backend. We agreed that we will need to further differentiate sets to enhance developer friendliness for Team 1.

Tuesday, 7 March 2017

We met with Dr Strange to present a demo of the Set Engine and show the website for the new API. We also met with Team 1 to talk about their needs and we let them knowing about the data that they could retrieve with the API.

Friday, 10 March 2017

Discussed and agreed on the addition of some additional options/parameters that the API will be able to take, in order for it to be more flexible and provide the right type of data to the frontend.

Tasks Completed

- Decision Tree implementation to recognise data types.
- The decision tree in the set engine was used to differentiate set data creating a greater variety of sets that can be referenced.
- Integration of request parser (Interpretation Engine) and REST Service. The system is simpler and can read files from the Blob container much faster.
- API Website. This website contains all the information about our REST API and documentation needed to use the API although Team 1 are currently the only developers with access. Found at http://comp205p.azurewebsites.net/.

- The new API has been integrated with continuous integration and deployment so updates to the API can be seen as soon as possible.

Problems to be resolved

- Find effective method to send millions of data points to Team 1.
- Experiment with new ideas in case point above fails.
- Test ways to permanently store data other than Azure blob storage, as it has proven to be a little slow.

Plan for next two weeks

- Run speed tests on sending ZIP files and compare to sending binary files.
- Implement a new graphing engine. This will mean that we will be able to send the resulting graphs to Team 1 instead of millions of data points.
- Continue adding the features we have been developing to the Web API, and updating the documentation on the landing page

Individual reports

Lambros Zannettos:

Created a new Web Service to host our main project solution, and linked to GitHub for continuous deployment, so all the latest changes are automatically applied. Here I started moving all our experiments and features into one place for easier access and comparison.

Nathan Liu:

I developed a decision tree to classify data types and applied this to the set engine to generate a greater variety of sets. We also integrated the REST service and Interpretation Engine into one simpler system. We also made a new endpoint to intersect sets. On the side I deduced a mathematical formula for calculating the scalar value for child sets after an intersection of two sets.

Junwen He:

I used zipping method to zip the data which searched from the dummy database we created on Azure into a txt file, and record the time it takes.