

Team 4: Bi-Weekly Report 2

Project Title: PEACH Data Mining

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Overview

Over the past 2 weeks, we have been working on the human computer interaction aspects of the project. We worked on researching similar technologies which are able to display clear and effective user interfaces for data visualization. The idea of this interface is that we are able to display information after Kafka processes. We have also carried out research with the target audience and created a basic prototype for HCI purposes, and a website and video with all the research and data we have gathered and produced.

Meetings

Client Meeting - Monday 30 October 2017

We met with our client, Dr Navin Ramachandran, and discussed the requirements of our project. The client proposed changes to the requirements and having discussed these changes, we decided to agree on a new main object. This is because of the potential positive impact of this new piece of software alongside what is achievable in the timeframe available for this project. As a result, our main objective is to create a medical data anonymization tool. This will be the central part of the PEACH system and will allow doctors to anonymize sensitive medical data and generate a realistic samples from a small subset of data.

Numerous Meetings During and Outside of Lab Sessions

We worked on the HCI component of the module, and mostly looked into different ways to provide an effective data visualisation tool. We also started looking at the source code of open-source data anonymization tools.

Completed Tasks

- Completed HCI part
 - Created a website and video
 - Created HCI prototype

Problems to be Solved

- Find data anonymization tools
 - Find open source versions

Plan

- Find 5 data anonymization tools / libraries
- Understand how they work
- Start implementing our own version
- Look at the previous team's code

Individual Section

Gavin Shek

In these last two weeks, I have created polls and surveys for users to complete, to understand what is looked for in an effective user interface. Using the target audience, I was able to gather what was required in the prototype. I then put the research and ideas into the prototype and began researching into Kibana and Elastic Stack.

Saqib Jahangir

I have researched into Power Bi, this is an interactive data visualization tool created by Microsoft. Furthermore, I researched into Tableau which is an alternative piece of software and used ideas to work on the prototype.

David Stepanovs

Over the last 2 weeks, I have worked on the HCI prototype and created the HCI video. After the meeting with our client I have looked at multiple data anonymization tools.