Team 41 (WHO 1) 30/10/2015
Chua Yi Shan
Xu Yuhang

Bi Weekly Report 2 – 30/10/2015

Overview

In the past 2 weeks, we have met our client twice to discuss our project overview and our requirements and deliverables.

Our project will be to extend an existing web-based service called Mediplus Board. The Mediplus Board is a tool which provides information for professionals in healthcare who are investigating outbreaks (for example, experts in the ECDC). The Board brings together various novel data sources such as news aggregation websites, social media and participatory surveillance as well as traditional data sources to aid professionals in decision making and risk assessment.

For our project, we will be further developing both the back-end and front-end of Mediplus Board. Some features have already been developed, such as scanning Twitter using keywords to find relevant data. We will further add on functions such as an intelligent system for threat assessment, improved data visualisation and removing duplicates from our various data sources.

Meetings held

Client

We had our first meeting with our client on Thursday 22/10. In this meeting, we were briefed on the project background and given a general idea on our requirements and deliverables. We also established a weekly meeting every Thursday from 1-2pm.

Our second client meeting was held on Thursday 29/10, with our TA present. In this meeting, we were shown a demo of the existing system which we would be expanding. Based on this, we had a discussion of the existing infrastructure and features of the Board, and the areas which we would be working on. We also discussed other details such as the virtual machines and repositories which we would be using.

From these 2 meetings, we established the following with our client:-

- We will be working on 2 virtual machines, one for development and one for live deployment
- We will most likely be using the Github repository with the existing code for the current version of Mediplus Board
- We will be working with the platforms and languages previously used for developing Mediplus Board, such as MongoDB and JavaScript
- We will be making use of some features which will be shared across both Mediplus Board and other applications, as well as creating features which are used exclusively by Mediplus Board

Internal Meetings

We had a meeting on Friday 30/10 to discuss our further steps. In this meeting, we discussed the division of roles in the team and our project schedule in the upcoming weeks.

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Our project schedule for the rest of Term 1 is as follows:

Gantt Chart - Term 1

		October			November					December	
		12	19	26	2	9	16	23	30	7	14
1	**Define Requirements**										
	Establish Client Communication										
	Research										
	Use Cases										
	System Requirements										
	User Requirements										
2	**Develop PoC Design**										
	UI development (HCI)										
	Sketching, Wireframing & Story boarding										
3	**Development**										
	Build Prototype										
	Testing & redesign										
4	**Others**										
	Group Video										
	Develop Website										
	Individual Report										

We have also allocated our team roles. Yi Shan's primary roles will be the group manager, client liaison and chief editor, while Yuhang's primary roles will be the deputy group manager, technical lead and chief researcher. However, these roles are not fixed and responsibilities will be shared as the project progresses.

Tasks Completed

- We have met our client and ensured that our client relationship is fully set up and working, with regular weekly meetings scheduled for the foreseeable future.
- We have begun discussion of our requirements and deliverables with our client
- Having identified some of the platforms and languages which we will be using for the project, we have started research on them
- We have begun working on our project website

Problems to be resolved before next report

- Further research on both the platforms we will be working with, risk assessment algorithms, visualisation techniques and data processing to get a better idea of what we can achieve for the Mediplus Board
- Fully define our requirements and project deliverables
- Get access to repository and virtual machines so that we can start studying and documenting the existing code

Plan for following 2 weeks

In the next 2 weeks, we will continue to research on the various languages and libraries which we can use in our project. In the meantime, we will also start coming up with some new features for the Mediplus Board, and think about what they look like and what kinds of data they will need. We can also begin drafting story boards for these features.

When we have access to the Github repository with the existing code, we will begin documenting what has already been done on the current system. This documentation should be complete before we start adding any new contents to the repository.

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Tasks worked on in last 2 weeks

Yi Shan

I have done research on MongoDB, as I have had no prior experience using it. In my research, I learned that as a NoSQL database, MongoDB has dynamic schemas, allowing for easier and faster integration of data in some situations, giving an advantage over the traditional relational database structure.

I have also set up the project website and started adding content to it. However, the website is currently still very much a work in progress, and I will continue to work on it in the subsequent weeks.

Yuhang

In the past two weeks, we had two meetings with our client, we eventually got the idea of what website we are going to make. The client showed us a demo website.

(http://dashboard.cs.ucl.ac.uk/app/?#/dashboard/threat)

So far the must-do requirements include:

1. an overview of number of keyword appeared online from 3 different sources (NEWS,TWITTER,INFLUENZANE)over a period that users searched including data and graph.

2. A summary of number of influenza-like illness identified over a period that users searched

3. A map of distribution of disease identified

4. Risk assessment system ,which is used for reporting any potential disease threats toward relevant department

Programming language :

Mangodb,Javascript,Html,Php

We have done some researches about these languages but we still need to talk to the developer of the demo website in order to get a better understanding of design idea and algorithm details.

Researches done:

Mongodb:

MongoDB is an open-source document database, and leading NoSQL database. MongoDB is written in c++.As we have not idea about the exact operation to database ,we search these basic but fundamental function.I provide one example code here.

(http://www.tutorialspoint.com/mongodb/mongodb_php.htm)

Make a connection and Select a database

```
<?php
  // connect to mongodb
  $m = new MongoClient();
```

```
  echo "Connection to database successfully";
  // select a database
  $db = $m->mydb;
  echo "Database mydb selected";
?>
```

Javascript ,php,and html will be used together to build front-end and back-end of the website.

Php is used to take and insert data from database and process the data and Javascript can process Inputs which do not come from database.