COSC345 Assignment 1 - Report

Group: Debug Divas

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The Team

We all have experience coding in C/C++, but the majority of the team were more comfortable with C++. Hamzah has an interest in coding the GUI for the project, and has already started looking into what library we would use, how it works, and what its limitations might be. Lydia has done some data scraping before and is interested in doing this for our project, as well as the other backend stuff required to use the data in the app. She will take a leading role in that part of the project. Linda has experience working with sprints, she is taking a leading role in the organization of the project regarding meeting deadlines and planning the work as well as an interest in databases and building the backend for the application. Nick has an interest in feature design, or what specific capabilities our app will have, as well as GUI layout and ways to make the user experience easier and more comfortable.

Datasets

For our datasets we'll be using information published on the NZ Parliament website, and a dataset of MP's found on data.govt.nz. One dataset from the NZ parliament website we'll use is the Hansard Reports (Parliament transcripts) which also include how MP's have voted in personal votes. We are also using Members' financial interests, which lists how many donations, real estate properties, and other monetary details they have declared. We can combine this data to show users information relating to certain MPs, and find statistics to do with different parties in parliament.

All this data will need to be scraped, but there already exists several Github repos with web scraper code for the hansard reports. Parliament.nz scrapes data from a the hansard reports from an inputted data, to xml format, we'll need to write some code to change that to a database formate. Nga-tautohetohe only looks at the māori parts of the transcripts but it generates all valid dates and links for the reports, which we can use. The members' financial interests document is a PDF, so we will write a script to convert it into a more easily usable JSON format.

Our App

Our idea for the app is to make public information about MPs published on the parliament website easily viewable and searchable to the public. With the purpose of making people more informed about who they're voting for especially in regards to the upcoming election.

We want to use information from the Hansard Reports to see what MP's have been saying in parliament and what they have voted for during personal votes. And we also want to

use information about their financial interests, particularly how many houses and properties they own.

Our plan is to make it easy to search and sort through MP's. Allowing users to look at specific MP's, who's running in their electorate, MP's of particular parties, etc.

Our plan for the overall layout of the website is one page where you can search and a scrollable page with different thumbnails with information about the MP's will come up. And you can click on a thumbnail to see more information about the MP. We do have some more ideas for the app, that would allow users to more easily compare parties or MP's running in the same electorate, the ability to see some overall stats, but we'll only implement them if we feel we have time.

Risk Analysis

Data Scraping Challenges: *Risk*: The existing web scrapers may not fully meet the project's requirements, leading to potential data inconsistency or missing information. *Risk Management:* Regularly review and modify the scrapers as needed (Risk Task). Tag potential data discrepancies for verification during testing (Risk Tag). If the scrapers become too unreliable, consider coding a new scraper from scratch (Risk Drop).

Legal and Ethical Concerns: *Risk*: There is a risk of unintentionally violating copyright or privacy laws when using data from the NZ Parliament website. *Risk Management*: Carefully review the terms of use and licenses associated with the data sources. Ensure proper attribution and compliance with privacy regulations (Risk Task). Implement a privacy policy in the app to address potential user concerns (Risk Task).

GUI Development and Compatibility: *Risk*: Compatibility issues might arise if the chosen library is not well-supported on all platforms and devices. *Risk Management:* Test the GUI on multiple devices and screen sizes to identify and resolve compatibility issues (Risk Task). Consider using a more versatile GUI library or develop responsive designs for better adaptability (Risk Tag).

Data Volume and Performance: *Risk*: Handling large datasets could lead to slow loading times and performance issues. *Risk Management:* Optimize data retrieval and storage mechanisms to improve performance (Risk Task). Implement pagination or lazy loading to handle large datasets more efficiently (Risk Task).

Team Coordination and Communication: *Risk*: Ineffective communication and coordination may lead to delays and misunderstandings among team members. *Risk Management:* Schedule regular team meetings to discuss progress, challenges, and plans (Risk Task). Use collaboration tools for efficient communication and task tracking (Risk Task). Establish clear channels for reporting sickness or unexpected absences to address potential disruptions (Risk Tag).

Schedule
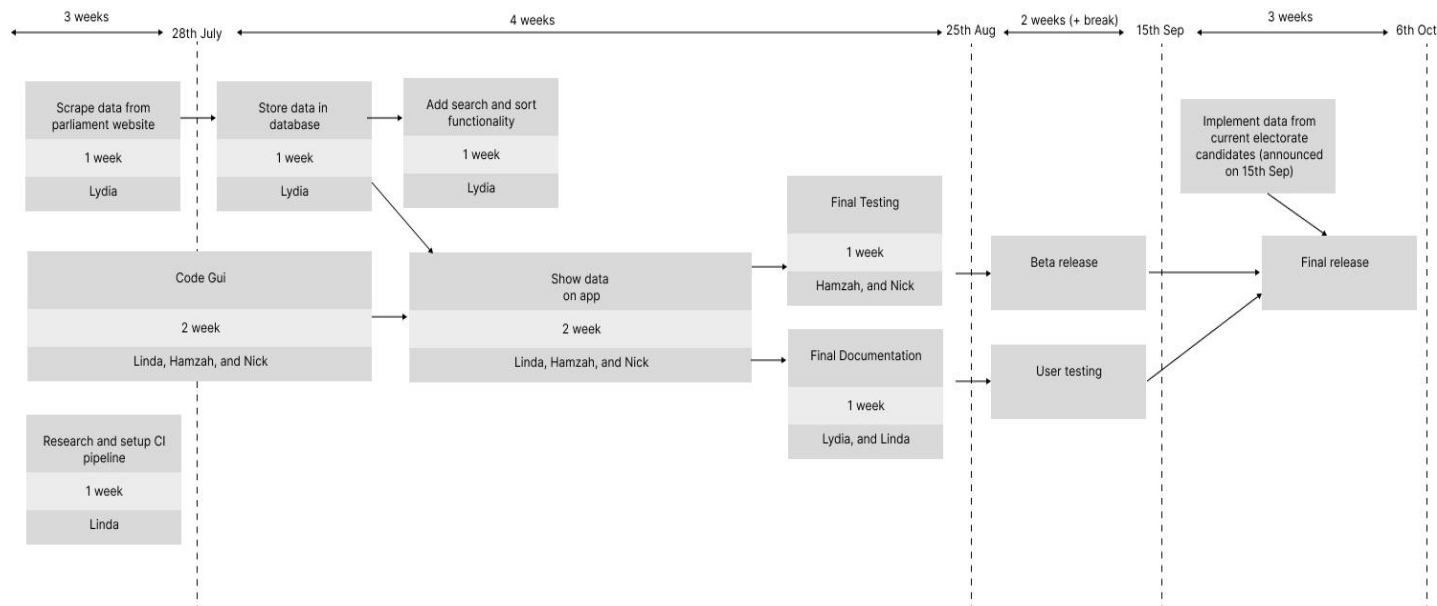
Similar apps / evidence of interest in this app

The upcoming election in October will most likely increase the public's interest in information about the MP's and what different party members are doing.

The interest in our application can be seen in existing applications, for example the website Voted uses data from the Hansard Reports to show how the various MPs voted during personal votes. This shows an interest in what MPs vote for in Parliament. MPs' financial interests are also something the people are interested in, particularly how many houses and properties they own, as this information could be compared to how the MP in question votes on issues related to finance. This article NZ's 120 MPs own 248 properties between them talks about some of the MPs that own a particularly large amount of houses, as well as the average amount of houses between parties.