

MOSS GUI Project by Team RNG (EH5)

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ABERTAY UNIVERSITY, DUNDEE, 2022



The Client



- Dr Suzanne Prior
 - Abertay Computer Science Lecturer
 - Focusses on introductory programming and usability



The Project Brief

- GUI Front-end for MOSS Plagiarism Detection software
- Several factors made using MOSS inefficient and frustrating
 - Format of code retrieved from MyLearningSpace
 - Command line submission method is tiresome



Aims and Benefits

Aims:

- Take a zip archive, unzip, and run through MOSS
- Return the results in web page format
- Make the GUI streamlined and easy to use

Benefits:

- Reduces workload on client and associates
- Provides identical functionality to MOSS, without the inefficiency



Background - The Problem

- MOSS is clunky
- Takes a long time to receive results
- Files require unzipping from MLS
- Time consuming
- Tedious



Background - The Solution

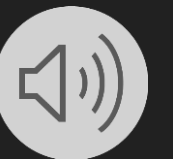
- GUI Application
- Accepts input of .zip archive – direct from MLS
- Quick and easy to use
- Time is largely unattended
- Results are displayed for ease of user review

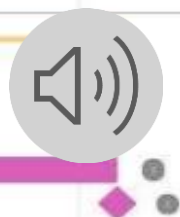
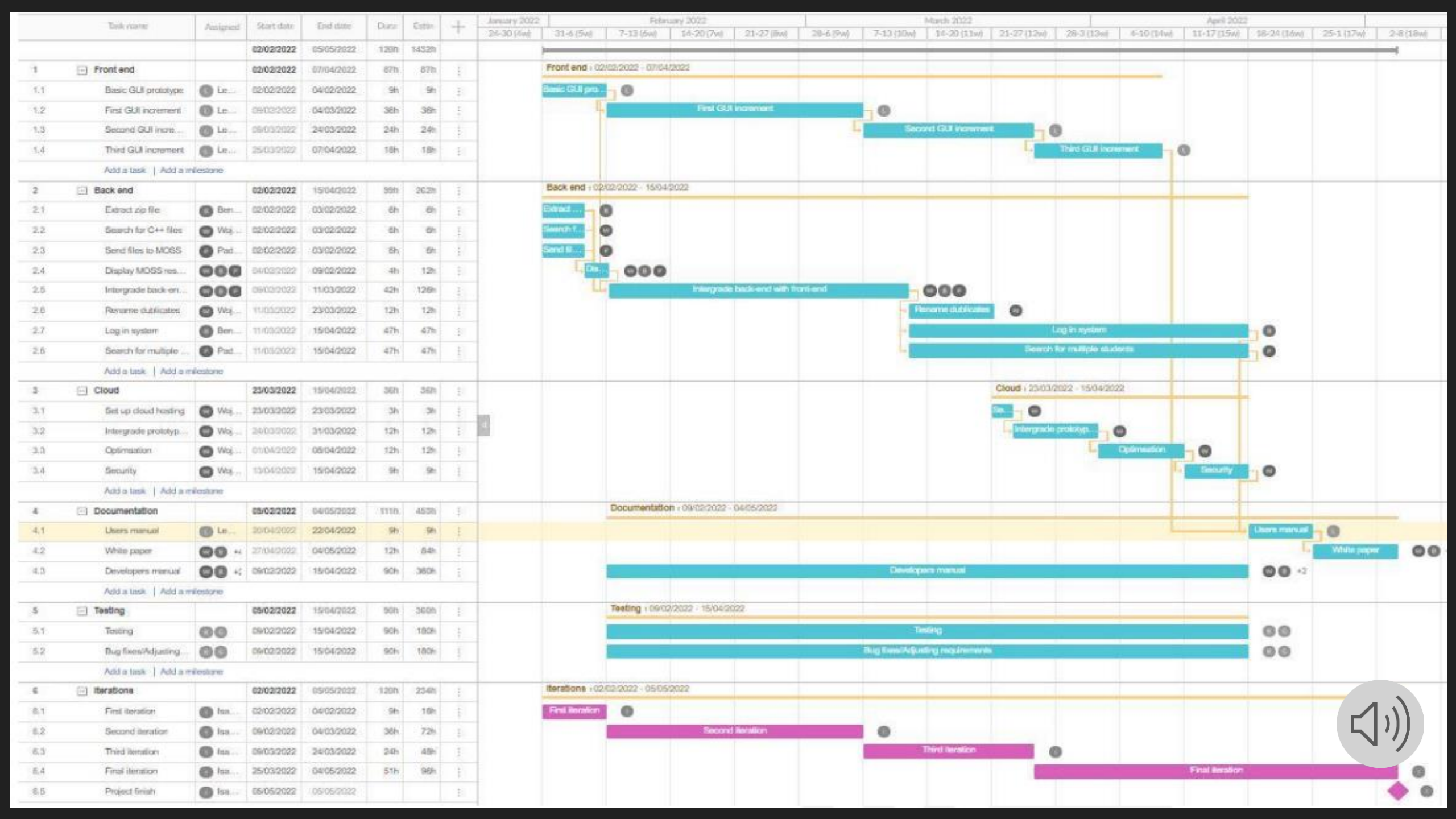


Methodology



How did we meet the requirements?



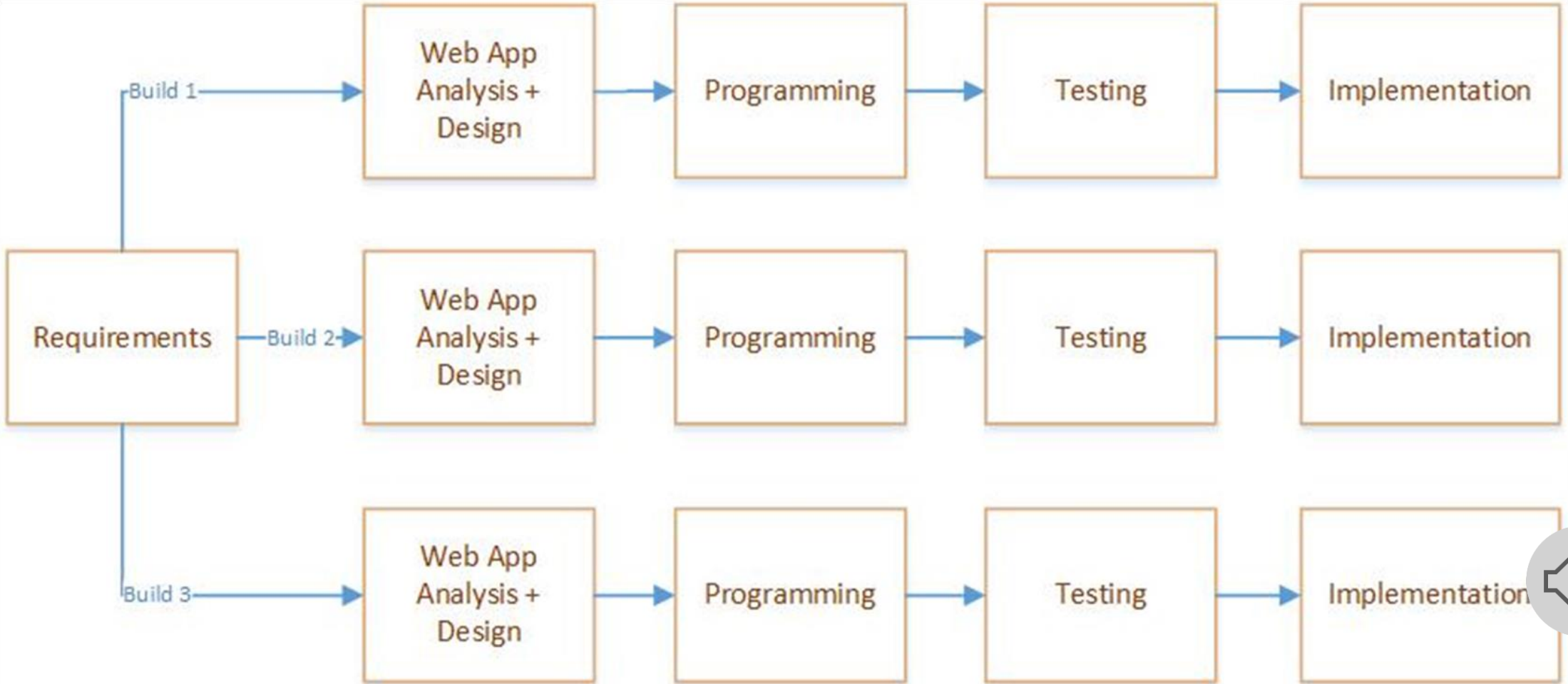


Gantt Chart – Did it help?

- Kept our team on target with completing each stage in the project
- Milestones and targets were achieved with plenty of time left
- Testers were not rushed in testing each part of programmed code
- Some tasks were cut upon development due to change in project direction (Log-In system)

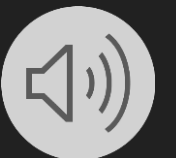


Incremental model



Incremental model – Did it help?

- During the planning stage we chose to use the incremental model approach to deliver the project.
- Helped keep our team on track with each stage of the project – (i.e web design, programming, testing)
- Using this approach really helped our development as many issues were spotted beforehand.



Prototyping

- Prototyping our product increased the complexity of the project and started taking up too much time, so we had to stop with this approach.
- Created some prototypes, but they were never shown.
- Example of one of our first prototypes.

MOSS GUI Tool

Drop files here

Files:

File names will appear here when they are dropped



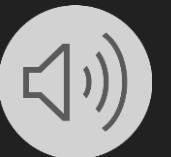
Requirements

Functional:

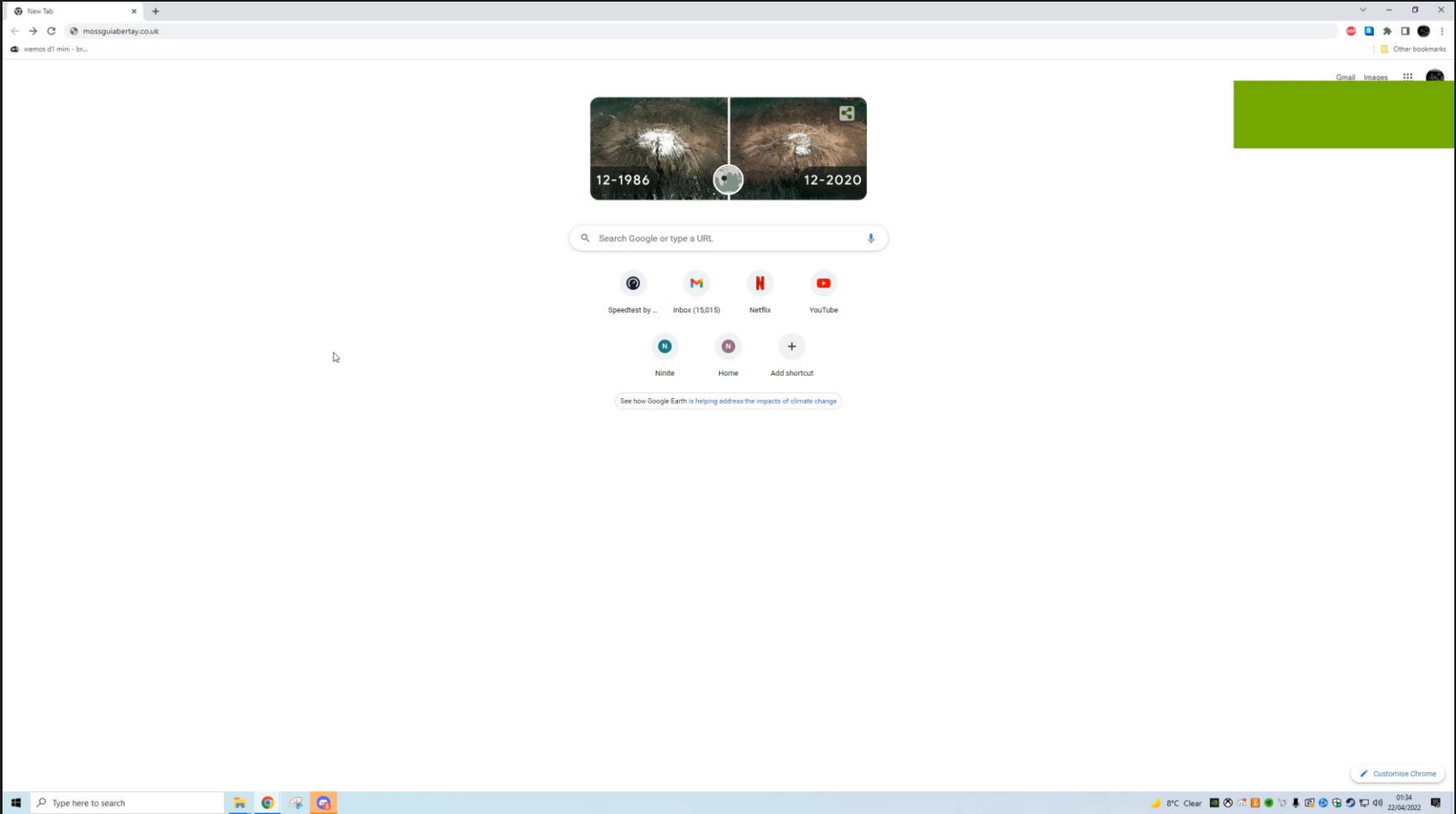
- A server-side website hosted online
- Source Code for the website
- A User manual to instruct the user and developer how to work with the code
- A manual on software used to support future developers
- Documentation regarding the testing process and how it was carried out

Non-Functional:

- Increase user efficiency when submitting to MOSS
- Improve the visuals of the app and decreasing the time taken to use it
- Ensure design is clutter free and efficient
- Secure data sent between client and server.



Results

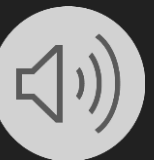


To what extent client's brief was met

Aims met:

- The application runs on cloud making it accessible to all devices with an internet browser.
- The application meets all functional requirements by taking in the zipped archives, unzipping them, searching for C++ files, renaming any duplicates and sending found files to MOSS. After the results are produced, they are displayed to the user.
- The application increases users' efficiency by removing the "preparation" work like searching for the C++ files.

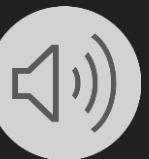
Considering all the above points, our application fully meets the client's brief.



Limitations

Limitations of the project:

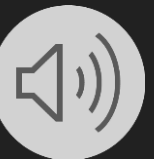
- Due to cost restrictions the MOSS GUI project has been limited to a maximum file size of 500MB
- There is often a delay between sending files to MOSS and receiving the results
- The MOSS GUI is currently limited to accepting three file types (.zip , .h and .cpp)



Future improvements

Potential future improvements:

- Allow users to submit more file types to the MOSS GUI, expanding the possible uses of this project
- Allow users to upload several separate zip files at once.
- Add features such as audio description of instructions and allow users to change font size to allow easier use for people with visual or hearing impairments



The team

- Good communication between team members
- Weekly meeting made sure everybody was completing tasks on time
- One member of the team left this problem was solved quickly



Thank you

If you have any questions, please contact Isaac: 1901124@uad.ac.uk

