

Initial Project Plan

*System for downloading up to date webpages for
offline viewing*

CM3203

One Semester Individual Project – 40

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Project Description

Although free WIFI access is becoming more and more available throughout every major city worldwide, we're nowhere near close to a full, free internet coverage. So if you ever take your laptop out in public, be it a coffee shop or whilst commuting. And you just quickly wish to check your favourite websites when Wi-Fi simply isn't available you're stuck with either reading a book or taking in the view.

That's why the aim of this project is to develop a system that asks the user to define his/her favourite websites which will then automatically download one's said webpages when free Wi-Fi networks are available so that they may be viewed offline at a later time when such networks are not available. Which would allow the users of this system not only to access their necessary websites whenever they so desire, but they also won't be forced to use their mobile data if presented with a better alternative.

Project Aims and Objectives

By the end of the project I am expecting to have the following objectives fully completed:

- Decide on and develop the most appropriate server-client architecture
- Gain an understanding of the systems performance through previously created test criteria.
- Perform and evaluate a small user based test to understand if the system is intuitive enough
- Develop a working solution – The system should at least have these main requirements to be considered a working and finished project:
 - Given a user defined list of webpages download and save those webpages on the device for offline viewing
 - When user connects to a Wi-Fi network, update the specified websites on the system
 - Decide on and develop a suitable and intuitive user interface.

If its possible to implement on the chosen technology stack on there is enough time left for the project it would be nice to have the following requirements:

- System should be able to handle different types of content (not only forum based content like bbc.co.uk, but also links to YouTube videos or even possibly social media feeds)
- The system should not only download the given page but, also the next 1-2 levels of the page (web crawling) *e.g. given that the website is bbc.co.uk, the user could be able to click on the articles and read the full articles*

Work Plan

Week 1: *Feb 4 – Feb 10*

- Think about and research most likely problems/difficulties with the project
- Research the most appropriate technology stack for this project
- Research the best client-server architecture and the possible technological limitations for the chosen technology stack
- Sketch the possible design for the application and outline a general idea of the applications flow

Week 2: *Feb 11 – Feb 17*

- Milestone – Have a working outline of the applications UI
 - Main screen displaying dummy data with possible action triggers

Week 3: *Feb 18 – Feb 24*

- Have a rough solution that allows the the user to input and save the users favourite website list with improved/more functional UI

Week 4: *Feb 25 – Mar 03*

- First draft of the Introduction for the Final Report.

Week 5: *Mar 04 – Mar 10*

- Have a rough solution that given an URL downloads the website on the user's system (basic inputs)

Week 6: *Mar 11 – Mar 17*

- First draft of the Background for the Final Report.

Week 7: *Mar 18 – Mar 24*

- Have a rough solution that given a list of URLs the system, once connected to a network will automatically update the stored websites

Week 8: *Mar 25 – Mar 31*

- Milestone – Have a rough working solution which includes the basic system requirements
- If the week 8 milestone is met, start working on nice to have features of the application.

Week 9: *Apr 1 – Apr 7*

- Perform and evaluate system and user tests
 - If deemed necessary and is possible in the remaining time frame, alter the application (within reason) based on the test results
- Have a rough outline of the Approach and Implementation sections of the Final Report

Week 10: *Apr 8 – Apr 13*

- Milestone – Have a polished working solution (prior testing) which might include the optional (nice to have) requirements
- Have a rough outline of the Results and Evaluation and Future Work sections of the Final Report

Easter Recess: *Apr 13 – May 5*

- Although as the project is currently planned, I have not allocated any tasks during the Easter holidays, its more likely than not that this time will be used to either finish the application if the previous milestone isn't met or to proceed with the final report writing.

Week 11: *May 6 – May 12*

- 10/05 – Milestone - Submit the Final report