Plan

# Abstract

This project aims to compare various user interfaces and evaluate their design in terms of human usability. To achieve this various HCI issues which are present will need to be tackled including but not limited to variation between individual humans, cognitive issues, colour theory and typography. Through experimentation these factors will be tested against to find the optimum version of several interfaces.

There will be 3 interfaces each with a set of versions for comparison of their ability to overcome the HCI issues:

* The first of these interfaces will be a simple website possibly with only one web page however interactivity will be present.
* The second will be a website for a small business consisting of several pages that require navigational issues to be resolved.
* The third, final, and most challenging interface will be a mobile application for the android operating system, this provides many more HCI issues compared to a webpage as the mobile interface is smaller in general, and requires alternative input such as touch, however also will encompass all the issues from the 2 websites.

Finally, a report will be written detailing the result and timeline of the entire project with a summary and evaluation of the software interfaces created.

This study in HCI aims for an improved experience during interaction, unlikely to save lives or change the world, however highlights some key aspects that may in the future be applied to such projects.

# Timeline

# Bibliography

Alan Dix et al., Human-computer Interaction Third Edition, 2004, Harlow, Pearson Prentice Hall

This book covers all the basics of HCI with more detail ready and waiting, this will be my main textbook for reference throughout the project. I can search through the basics and then delve deeper once I locate an area of HCI that I require further exploration of.

Donald A. Norman, The Design of Everyday Things Revised and Expanded Edition, 2013, Cambridge Massachusetts, The MIT Press

This was a book recommended by two professors who teaches HCI at Royal Holloway. It serves much the same as the following website, it covers some of the topics of the course I attended, acting as a point of reference to check back upon. The writing in this book is also easier to read, and deals with interaction outside of just HCI giving it wider application.

Nuno Barreiro & Carlos Matos**,** 16-17 CS2846: Human-Computer Interaction, Royal Holloway University of London, <https://moodle1617.royalholloway.ac.uk/course/view.php?id=3902> , 29/09/2017

In my second year of undergraduate study I took this class and learnt nearly all I went into this project with regarding HCI. I decided it would be beneficial to keep it at hand for checking back to keep on track with the core of HCI.

Color Matters, J.L.Morton, <https://www.colormatters.com/> , 29/09/2017

This website proves to be useful for colour theory in various views, such as marketing and scientific. A simple but effective website with many pages of information that was easy to digest.

# Risk Assessment

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| Risk | Mitigation |
| Report not completed | Keep notes of progress and update draft report regularly throughout project |
| Findings not reliable | Ensure sample size for testing is adequate, and eliminate as many extraneous variables as possible |
| Interfaces not sufficient for testing | Reductions in the number of interfaces can leave more time for testing due to less work to create so many variations and tests for these variations |
| Findings inconclusive | Allowing time for further investigation, or altogether different tests may provide some mitigation against this |