



Advanced Interaction Design
Coursework A
Sem B 20/21

Group Assignment

Coursework A is worth 40% of your overall course mark.

The presentation of the work will be on the 26th February via Blackboard Collaborate

A Digital version of the Coursework and Prototype should be submitted via Vision no later than 3:30pm on Monday March 1st 2021 (week 8).

There should be two files

1. A report submission should consist of one PDF with the following parts:
Part A: The Group Design Report (with all individual surname clearly shown)
Part B: An Appendix with the Storyboards, screenshots and log book.
2. A downloadable and executable group prototype with at least one of the group members surname clearly shown.

Handout date 19th January 2021

Contacts for assistance and queries:

Course Lecturers

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Course Tutors

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PART A: WORK TO BE COMPLETED IN A SMALL GROUP (3 max)

Please choose one of the three concepts below and let the lecturer/tutor know:

1. A family (2 parents, 3 children aged 13, 8 and 5) want to learn about and then limit their energy usage. Your group should create visuals and digital nudges that help the different family members learn about and improve their use of their energy.
2. Create an enjoyable multimodal reminder system (one for exercise and one for medication) for an adult over 70 years of age. There must be a least 3 different modalities used.
3. Design part of a banking app that enables a user to login and securely let their bank know when they are going abroad for work or holiday.

The above concepts are deliberately open ended because at this level of academic work you are expected to be able to plan how to tackle real world problems.

You are assessed on the quality of the design, **the thoroughness of your background research**, and **most importantly the quality (in terms of Interaction Design)** of the prototype produced. You do not need to produce a fully working prototype, but at least some parts should be interactive, and at least two task pathways should be able to be completed by a user. The background research, methodology for producing the designs and the prototypes usability is the main focus.

Before starting the coursework it is important that you acknowledge that it must be designed for and work for the **END USER(S) specified**. Whatever you design should be designed to cater to the needs of your user group, for example your user group may need the design to reflect weak eyesight or certainly learning difficulties (e.g. dyslexia). Whilst it is not expected of you to have the application fully designed for different disabilities it is expected that elements of these requirements should exist in the design.

Group Size

You should work in groups of 3. You are expected to email the class tutor to let them know your group (Edinburgh based students this is Martin Ross (mkr30@hw.ac.uk) by the end of week 3). If anyone has not formed themselves into a group by the end of that week, then please let the class tutor know and they will be randomly assign you to a group. No changes can be made to the groups after week 4.

Individual contributions

It is an important aspect of collaborative work that the strengths of individuals are harnessed for the overall good of a project. You will be expected to share the workload in the assignment **equally** between you but division of labour along lines of interest or expertise is expected. Use your strengths and weaknesses to divide work accordingly.

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Problems within collaborative working

Should anyone in your groups conduct be deemed unsatisfactory then this should be reported to the Course Leader, who will speak to the student concerned. In the first instance, you should try to resolve any issues by yourselves.

DETAILED ASSIGNMENT TASK OVERVIEW

The assignment requires the group to carry out the following tasks, each of which we will discuss during the first weeks of the course.

1. Requirements Gathering & Planning (30 marks)

- i. Gantt Chart/Time Line: A Gantt Chart or detailed time line should be created detailing all the work to be completed for coursework A. Each task should have the initials of the person responsible for delivering the task.
- ii. Background Research & Requirements analysis: The group should undertake a literature review, try to cite approximately 10-15 papers. This review should focus on requirements gathering in Human Computer Interaction and also focus on designing for your selected user group. Make use of a variety of research sources of information about the problem, don't just rely on googling the web for information. If the group has access to some of the user group in question then do some virtual interviewing, if not then the group will have to rely on data that can be gathered from written sources (e.g. articles, journals, books). A number of requirements will emerge from this review, which you can use for your design.
- iii. Creation of Personae and Scenarios
- iv. Creation of Storyboards

The first stage of your work requires your group to undertake the work in points i-iv. **Please create drafts of all of the above and be ready to present them on Friday, 12th February 2021 (week 5).** The lecturers/tutors will provide feedback on all elements during Friday's class.

2. Prototype Development (40 marks)

After gaining essential feedback about the first stage of the work the group is now ready to move on to create a software prototype. There are many tools you can use to create your prototype the one that we have selected is "Justinmind", please let the course lecturers know if your group would like to use something else and we will consider this request. Please note: we will only offer tutor/lab support for Justinmind.

3. Design Report (20 marks)

A report that contains the requirements gathering & planning and the creation and design of the prototype. The report should contain annotated versions of the final prototype screenshots, which should explain how the group implemented Advanced Interaction Design concepts. In addition you should keep a log book (include as an appendix) in which you report on all your design ideas and decisions. Your report should be succinct (no more than 5000 words).

4. Presentation & Demo (Week 7 Friday classes) (10 marks)

Each group will have approximately 10 minutes to present their final prototype to one of the class lecturers or tutors. The prototype must be available for the tutor to check that two tasks can be completed using the partially functioning prototype.