COMP1649 (21/22)	Human Computer Interaction and Design	Faculty Header ID:	Contribution: 100% of course
Course Leader: Dr. Ralph Barthel	Coursework		Deadline Date: 25th November 2021
This coursework will be marked anonymously **YOU MUST NOT PUT ANY INDICATION OF YOUR IDENTITY IN YOUR SUBMISSION**			
This coursework should take an average student who is up-to-date with tutorial work approximately 50 hours Feedback and grades are normally made available within 15 working days of the coursework deadline			
Learning Outcomes: 1 Deploy theory, design principles, tools and methodologies to implement and evaluate human- computer interactions; 2 Carry out design research to inform development of systems and applications; 3 Construct and create prototypes of human-computer interactions; 4 Demonstrate the origins of ideas by correctly citing and referencing sources used in the work.			

Coursework Submission Requirements

- An electronic copy of your work for this coursework must be fully uploaded on the Deadline Date using the link on the coursework Moodle page for COMP1649.

- For this coursework you must submit a single PDF document. In general, any text in the document must not be an image (i.e. must not be scanned) and would normally be generated from other documents (e.g. MS Office using "Save As .. PDF"). An exception to this is hand written mathematical notation, but when scanning do ensure the file size is not excessive.
- For this coursework you must also upload a single **ZIP** file containing supporting evidence.
- There are limits on the file size (see the relevant course Moodle page).
- Make sure that any files you upload are virus-free and not protected by a password or corrupted otherwise they will be treated as null submissions.
- Your work will not be printed in colour. Please ensure that any pages with colour are acceptable when printed in Black and White.
- You must NOT submit a paper copy of this coursework.
- All courseworks must be submitted as above. Under no circumstances can they be accepted by academic staff
- **All mid-fidelity prototypes for this course must be submitted either as Axure file or in an open format (HTML and JavaScript). Submissions of prototypes submitted in other formats or as proprietary file types from other prototyping tools will ne be accepted and marks for the prototype will be reduced to 0.**

The University website has details of the current Coursework Regulations, including details of penalties for late submission, procedures for Extenuating Circumstances, and penalties for Assessment Offences. See http://www2.gre.ac.uk/current-students/regs

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Detailed Specification

You have been commissioned to create a concept and a prototype of a new in car entertainment and navigation system. The basic brief you have been given for the system is that it should enable you to access your music library and provide navigation services. The scope of the prototype should be limited to these two main areas. You are asked to create a proof of concept for the interactions of this system to see if users find it usable and desirable. The basic brief is open for interpretation and you can and should design desirable interactions as you see fit based on your background readings and your research activities.

You need to define an audience for your product. Your design and research activities need to be in alignment with that choice and a justification for all your

assumptions and design decisions needs to be provided. You need to create a mid-fidelity prototype that enables people to experience at least the core interactions that are available in your system in an interactive manner.

You are not required to do any material studies or create a physical prototype of the in-car device but you need to provide a conceptual design of the interactions of your in-car entertainment and navigation system and how all its components interact with their environment in your report. **Your writing needs to be supported by at least 12-15 academic references (journal papers, conference papers, academic books - not blogs or online tutorials or the like).** References ought to be formatted in Harvard style.

- **Deliverables**
  - Report of 2000-3000 words uploaded as a pdf file.
  - Mid-fidelity prototype uploaded in a zip file.

Assessment Criteria

Report

Appropriate referencing in Harvard style of relevant background literature (journal papers, conference papers, academic books) throughout the report. The quality and relevance of the included resources and their suitability to support your writing are important.
5%

A discussion how the five different dimensions of Interaction Design are reflected in your design concept and prototype.
15%

Evidence that appropriate research activities have been carried out to generate requirements for the Interaction prototype. There needs to be a clear link, documentation and justification for each core requirement. Relevant background literature (e.g. cognitive psychology, interaction design theory) needs to be integrated. At the end of the section you need to provide a summary of the scope of your prototype, how it is informed by the contents of this sections and how it will work.
20%

A presentation of a detailed concept for an empirical research study that uses your prototype to test at least one assumption that you have made when designing your prototype. In this step you need to present the design of a research study including the question(s) that your research study attempts to answer, who the participants of your

study will be, how the study will be run and how you will analyse the data. You do not need to run the study but you need to create all necessary instruments and documentation that is required for a usability expert to run the study.
20%

A conclusion drawing together the key facts, critical reflections on the limitations of the work that has been carried out and a discussion of potential future work if the project would be developed further. The conclusion needs to go beyond repeating what has been said elsewhere and show a clear vision of what the next steps for such a project would be.
10%

Mid-fidelity prototype of an interaction device

Clear links between coursework report and the corresponding prototype so that design decisions are well documented.

Evidence of the effective and successful application of Interaction Design principles to create a prototype that can be used to test core concepts of your design and that is suitable as a learning tool for researchers and designers. Specific consideration is to be given to the concept of five dimension of interaction design.
30%

Criteria for Assessment	80-100 Exceptional	70-79 Excellent	60-69 Very Good	50-59 Good	40-49 Satisfactory	30-39 Fail	0-29 Fail
Application of Interaction Design Theory and Principles of Interaction design **ASSESSMENT DOMAIN 1** **Deploy theory, design principles, tools and methodologies to implement and evaluate human-computer interactions;**	Demonstrates exceptional systematic understanding of Interaction Design Theories, Processes and Principles and their application to a given practical design task. All activities are underpinned by an exceptional understanding of relevant theory and HCI best practices.	Demonstrates excellent systematic understanding of Interaction Design Theories, Processes and Principles and their application to a given practical design task. All activities are underpinned by an excellent understanding of relevant theory and HCI best practices.	Demonstrates very good understanding of Interaction Design Theories, Processes and Principles and their application to a given practical design task. There is evidence that relevant theory and HCI best practices have been applied effectively in the design process.	Demonstrates overall a good understanding of Interaction Design Theories, Processes and Principles and their application to a given practical design task.	There is satisfactory evidence that at least some Interaction Design Theories, processes and principles have been followed and applied to the given design task.	There is a lack of understanding of Design Theories, Principles and Processes. Design decisions lack justifications and are not grounded in literature.	There is hardly any engagement with relevant theory, principles and processes. Design decisions are not based on engagement with background literature.
Design Research **ASSESSMENT DOMAIN 2** **Carry out design research to inform development of systems and applications;**	The assignment shows an exceptional understanding of design research and its activities. An exceptionally well thought out research study design has been presented.	The assignment shows an excellent understanding of design research and its activities. An excellent well thought out research study design has been presented.	The assignment shows a very good understanding of design research and its activities. A very good research study design has been presented. The study design might have a few shortcomings or lack justification.	The assignment shows a good understanding of design research and its activities. A sound research study design has been presented. The study design will have gaps or lack in justification.	The assignment shows a basic understanding of design research and its activities. A satisfactory research study design has been presented. The study design might have shortcomings or lack justification.	The assignment shows a lack of systematic understanding of design research and its activities. The presented research study has gaps and inconsistencies. A clear rationale and justification for the study design are missing.	The assignment lacks an understanding of design research and its activities. The presented research study is missing major elements. A clear rationale and justification for the study design are missing.

Prototyping **ASSESSMENT DOMAIN 3** Construct and create prototypes of human-computer interactions;	An exceptionally well crafted and thought out prototype has been presented. The prototype is suitable to evaluate the assumptions that have been made in the research study and it can be seen as exceptional learning tool for designers. An exceptional implementation of established Interaction design principles can be evidenced in the prototype.	An excellently well-crafted and thought out prototype has been presented. The prototype is suitable to evaluate the assumptions that have been made in the research study and it can be seen as excellent learning tool for designers. An excellent implementation of established Interaction design principles can be evidenced.	A very good prototype has been presented. The prototype is suitable to evaluate at least some of the assumptions that have been made in the research study and it can be seen as suitable learning tool for designers. A very good number of established interaction design principles can be evidenced in the submitted prototype. There are clear links to the rest of the report.	A good prototype has been presented. The prototype is at least suitable to evaluate at least some of the assumptions that have been made in the research study and something can be learned from the prototype. Established interaction design principles can be evidenced in the submitted prototype and there are good links to the rest of the report.	A satisfactory prototype has been presented. The prototype might have gaps in its scope and it might be not clear how it helps to address a particular design problem that should be expressed in the research study design. There should be some indication of established design principles in the submitted prototype.	The prototype that has been submitted has shortcomings. The scope of the prototype might be too insubstantial and/or not many established Interaction design principles can be evidenced. There are no clear links to the rest of the report and the research study that needed to be designed.	The prototype that has been submitted has serious shortcomings. The scope of the prototype might be too insubstantial and/or hardly any established Interaction design principles can be evidenced. There are hardly any links to the rest of the report and the research study that needed to be designed.

Academic Scholarship **ASSESSMENT DOMAIN 4** **Demonstrate the origins of ideas by correctly citing and referencing sources used in the work and by demonstrating critical thinking abilities**	An exceptional use of a significant number of suitable academic references to support the writing. References are all appropriately formatted and presented.	An excellent use of a significant number of suitable academic references to support the writing. References are all appropriately formatted and presented.	A very good use of a number of suitable academic references to support the writing. References are mostly appropriately formatted and presented. There is scope for the inclusion of more references in different sections to support the writing.	A good use of a number of suitable academic references to support the writing. References are by and large appropriately formatted and presented. There is scope for the inclusion of more references in different sections to support the writing and there is scope for the inclusion of more relevant readings.	A satisfactory use of a decent number of suitable academic references to support the writing. References might not all be appropriately formatted. There will be scope for the inclusion of more references in different sections to support the writing. Not all references will be the most relevant.	The assignment shows a lack of engagement with suitable academic literature. The formatting of references or their origin might not be best suited for the task. References might be missing or be incomplete.	There is hardly any engagement with suitable references and academic scholarship standards that are expected at this level will have not been met in terms of formatting, types of references and integration of background literature.