COMP1649 (2023/24)	**Human Computer Interaction and Design**	**CRN 14871**	**Contribution: 100% of course**
Module Leader: Dr. Annemarie Zijlema	**Coursework**		**Deadline Date: Tuesday 05/12/2023**
This coursework should take an average student who is up-to-date with tutorialwork 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.			

Plagiarism is presenting somebody else's work as your own. It includes: copying information directly from the Web or books without referencing the material; submitting joint coursework as an individual effort; copying another student's coursework; stealing coursework from another student and submitting it as your own work. Suspected plagiarism will be investigated and if found to have occurred will be dealt with according to the procedures set down by the University. Please see the assessment misconduct procedure for further details of what is / isn't plagiarism.

Note that submitting writing generated by AI tools as your own work might an Academic Offence (see also the Guidance on the use of artificial intelligence (AI)), and penalties apply as detailed in above procedures.

All material copied or amended from any source (e.g. internet, books) must be referenced correctly according to the reference style you are using.

Your work will be submitted for plagiarism checking. Any attempt to bypass our plagiarism detection systems will be treated as a severe Assessment Offence.

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 your prototype file.
- There are limits on the file size (see the relevant 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.
- 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 module must be submitted as Axure RP file unless agreed with the module leader otherwise. Submissions of prototypes submitted in other formats or as

proprietary file types from other prototyping tools will not 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 https://www.gre.ac.uk/student-services/exams/regs and the Academic Regulations for Taught Awards.

Detailed Specification

Design brief

You have been commissioned to write a report and create a prototype for a new interactive product for leisure motor bike riders, of which some features may need to be used while riding. The basic brief you have been given for the product is that, 1) it should enable users to use (gps) navigation to ride to their intended destination and track their rides, and 2) provide access to their favourite music and allow them to listen to music during their rides.

The scope of the interactive prototype should be limited to the above mentioned two main areas, for interactions that may take place on the motor bike as well as off the motor bike. 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.

Interactive prototype

You need to create a mid-fidelity prototype of the application that enables people to experience at least the core user journeys that are available in your application in an interactive manner. This prototype should be developed in Axure RP10, unless agreed otherwise with the module leader.

You are required to describe the *conceptual design* and provide a description and visualisation of the product and its components and interactions in the report. You need to submit an interactive digital prototype demonstrating the interface and interactions of your application and explain how one interacts with its components.

Your design and research activities need to be in alignment with your target group and justifications for all your assumptions and design decisions need to be provided.

Report

In the coursework report, you document your research and design activities, and the required future research study and other future work for the product. This includes a review of relevant literature that informed your design, a discussion of the conceptual design for the product, and a discussion of how design principles will be applied. The report will also discuss your (design) process of developing the interactive mid-fidelity prototype and how relevant HCI theory has been implemented. A plan for an empirical research study should be proposed to investigate a research question or hypothesis, and the conclusion should also detail other aspects of future work required. More details can be found in the assessment criteria below. You may also want to consult the annotated table of contents available on the COMP1649 Moodle page to help you structure your report.

Your report needs to be professionally and academically written and structured, based on your own research and reading, and written by yourself using appropriate in-text citations and referencing. This includes the demonstration of English language proficiency, appropriate level of detail, professional formatting of the report, and the writing should be supported by at least **8 relevant academic references** (journal papers, conference papers, academic books - not blogs or online tutorials etc.). References and in-text citations should be formatted in Harvard style. The report word limit is 3000 words. If the submitted work exceeds the limit by more than 10%, marks will be reduced.

Deliverables

- Report of 2000-3000 words uploaded as a pdf file.
- Mid-fidelity prototype uploaded as .rp.

The prototype should be submitted as an Axure RP file unless agreed with the module leader otherwise.

Assessment Criteria

Report

Professional writing style, English language proficiency, writing with appropriate level of detail, professional report formatting, sufficient and appropriate referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report. A minimum of 8 sources is expected.
5%

A review of relevant and appropriate HCI background literature written in your own words and appropriately referenced, to inform the design of the product and to generate requirements. The relevant background research (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.) should support generating requirements for the proposed solution. It should be made clear which academic sources have been used and how they were retrieved.
20%

The product design consisting of A) A discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met, and B) The design principles (by Don Norman) and their application to the coursework product are discussed. A brief discussion for each principle/concept and suitable visual representations should be included.
15%

A detailed proposal for an empirical HCI research study that uses your interactive prototype. In this proposal, you need to describe and justify the details for a research study including the research question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. You do not need to run the study but you need to create all necessary material and documentation that are required for a usability expert to run the study.
20%

A conclusion providing 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 in the context of HCI of what the next steps for such a project would be.
10%

Mid-fidelity prototype of an interactive product

Clear links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. There is evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. The implementation of design research, theory, and principles is evident in both the report and the prototype.
30%

Rubric COMP1649	**0-29% Fail**	**30-39% Fail**	**40-49% Satisfactory**	**50-59% Good**	**60-69% Very Good**	**70-79% Excellent**	**80-100% Exceptional**
15 points	*0-4*	*5*	*6-7*	*8*	*9-10*	*11*	*12-15*
D1 Knowledge **Demonstrating the design process and implementation of design principles**	Little to no discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met. Also little to no design principles (by Don Norman) and their application to the coursework product are discussed. The report lacks a discussion for each principle/concept and little to no suitable visual representations.	A poor discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met. Also a poor discussion of the design principles (by Don Norman) and their application to the coursework product. The report has a poor discussion for each principle/concept and poor suitable visual representations.	A satisfactory discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met. Also a satisfactory discussion of the design principles (by Don Norman) and their application to the coursework product. The report has a satisfactory discussion for each principle/concept and satisfactory suitable visual representations.	A good discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met. Also a good discussion of the design principles (by Don Norman) and their application to the coursework product. The report has a good discussion for each principle/concept and good suitable visual representations.	A very good discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met. Also a very good discussion of the design principles (by Don Norman) and their application to the coursework product. The report has a very good discussion for each principle/concept and very good suitable visual representations.	An excellent discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met. Also an excellent discussion of the design principles (by Don Norman) and their application to the coursework product. The report has an excellent discussion for each principle/concept and excellent suitable visual representations.	An exceptional discussion of the product idea (conceptual design) explaining the components of the product and how the user will interact with the product, and how requirements will be met. Also an exceptional discussion of the design principles (by Don Norman) and their application to the coursework product. The report has an exceptional discussion for each principle/concept and exceptional suitable visual representations.

30 points	*0-8*	*9-11*	*12-14*	*15-17*	*18-20*	*21-23*	*24-30*
D1 Knowledge **Mid-fidelity Prototype**	Little to no links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. Little to no evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. Little to no demonstration of implementation of design research and theory in both the report and the prototype.	Poor links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. Poor evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. Poor demonstration of the implementation of design research and theory in both the report and the prototype.	Satisfactory links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. Satisfactory evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. Satisfactory demonstration of the implementation of design research and theory in both the report and the prototype.	Good links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. Good evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. Good demonstration of the implementation of design research and theory in both the report and the prototype.	Very good links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. Very good evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. Very good demonstration of the implementation of design research and theory in both the report and the prototype.	Excellent links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. Excellent evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. Excellent demonstration of the implementation of design research and theory in both the report and the prototype.	Exceptional links between the coursework report and the prototype with design decisions explicitly documented and justified in the report. Exceptional evidence of the effective and successful application of HCI theory and design principles to create a prototype that can be used to test core assumptions of your design and that is suitable for researchers and designers to test and evaluate the product. Exceptional demonstration of the implementation of design research and theory in both the report and the prototype.

20 points	*0-5*	*6-7*	*8-9*	*10-11*	*12-13*	*14-15*	*16-20*
D1 Research **Review of relevant HCI literature**	Little to no review of relevant and appropriate HCI background literature to inform the design of the product and to generate requirements. The background literature lacks relevance and does not or very little support the requirements of a proposed solution (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.). Details of how the literature was found were not provided or remain unclear.	Poor review of relevant and appropriate HCI background literature to inform the design of the product and to generate requirements. The background literature has poor relevance and supports the requirements of a proposed solution to a poor standard (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.). The literature research was superficially conducted or poorly documented.	A satisfactory review of relevant and appropriate HCI background literature to inform the design of the product and to generate requirements. The background literature has relevance and supports the requirements of a proposed solution to a satisfactory standard (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.). The literature research was satisfactory conducted and documented.	A good review of relevant and appropriate HCI background literature to inform the design of the product and to generate requirements. The background literature has relevance and supports the requirements of a proposed solution to a good standard (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.). The literature research was conducted and documented to a good standard.	A very good review of relevant and appropriate HCI background literature to inform the design of the product and to generate requirements. The background literature is very relevant and supports the requirements of a proposed solution to a very good standard (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.). The literature research was conducted and documented to a very good standard.	An excellent review of relevant and appropriate HCI background literature to inform the design of the product and to generate requirements. The relevance of the background literature is to an excellent level and supports the requirements of a proposed solution to an excellent standard (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.). The literature research was conducted and documented to an excellent standard.	An exceptional review of relevant and appropriate HCI background literature to inform the design of the product and to generate requirements. The relevance of the background literature is to an exceptional level and supports the requirements of a proposed solution to an exceptional standard (e.g. related work, HCI literature in relation to the product's context, interaction design theory, cognitive psychology etc.). The literature research was conducted and documented to an exceptional standard.
20 points	*0-5*	*6-7*	*8-9*	*10-11*	*12-13*	*14-15*	*16-20*
D2 Research **Proposal for an empirical HCI research study**	A detailed proposal for an empirical HCI research study that uses your interactive prototype is absent or nearly	A poor proposal for an empirical HCI research study that uses your interactive prototype. A poor standard and few details for a	A satisfactory proposal for an empirical HCI research study that uses your interactive prototype. A satisfactory standard and some details for a research study were	A good proposal for an empirical HCI research study that uses your interactive prototype. A good standard and some good details for a research study were described, including	A very good proposal for an empirical HCI research study that uses your interactive prototype. A very good standard and some very good details for a research study were	An excellent proposal for an empirical HCI research study that uses your interactive prototype. An excellent standard and excellent details for a research study	An exceptional proposal for an empirical HCI research study that uses your interactive prototype. An exceptional standard and exceptional details for

	absent. Nearly no details for a research study were described, including the question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. Little to no necessary material and documentation that are required for a usability expert to run the study were created.	research study were described, including the question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. The material and documentation that are required for a usability expert to run the study were created to a poor standard.	described, including the question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. The material and documentation that are required for a usability expert to run the study were created to a satisfactory standard.	the question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. The material and documentation that are required for a usability expert to run the study were created to a good standard.	described, including the question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. The material and documentation that are required for a usability expert to run the study were created to a very good standard.	were described, including the question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. The material and documentation that are required for a usability expert to run the study were created to an excellent standard.	a research study were described, including the question(s) or hypothesis that your research study attempts to investigate, who the participants of your study will be, how the study will be run, the data collection, and how you will analyse the data. The material and documentation that are required for a usability expert to run the study were created to an exceptional standard.

10 points	*0-2*	*3*	*4*	*5*	*6*	*7*	*8-10*
D3 Evaluation / D6 Employability **Conclusion**	Little to no critical reflections on the limitations of the work that has been carried out and little to no discussion of potential future work if the project would be developed further.	A poor conclusion with barely any critical reflections on the limitations of the work that has been carried out and a poor discussion of potential future work if the project would be developed further.	A satisfactory conclusion with satisfactory critical reflections on the limitations of the work that has been carried out and a satisfactory discussion of potential future work if the project would be developed further.	A good conclusion with good critical reflections on the limitations of the work that has been carried out and a good discussion of potential future work if the project would be developed further.	A very good conclusion with very good critical reflections on the limitations of the work that has been carried out and a very good discussion of potential future work if the project would be developed further.	An excellent conclusion with excellent critical reflections on the limitations of the work that has been carried out and an excellent discussion of potential future work if the project would be developed further.	An exceptional conclusion with exceptional critical reflections on the limitations of the work that has been carried out and an exceptional discussion of potential future work if the project would be developed further.
5 points	*0*	*1*	*2*	*2*	*3*	*3*	*4-5*
D4 Communication / D5 Referencing **Professional writing and referencing**	A lack of demonstrating a professional writing style, little to no English language proficiency, Unnecessarily detailed writing or too superficial, the report lacks professional formatting, largely incorrect or no referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report.	Poor demonstration of a professional writing style, poor English language proficiency, poor level of detail or too superficial writing, poor report formatting, poor referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report.	a satisfactory professional writing style, satisfactory English language proficiency, satisfactory level of detail and conciseness, satisfactory report formatting, satisfactory referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report.	a good professional writing style, good English language proficiency, good level of detail and conciseness, good report formatting, good referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report.	a very good professional writing style, very good English language proficiency, a very good level of detail and conciseness, very good report formatting, very good referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report.	excellent professional writing style, excellent English language proficiency, excellent level of detail and conciseness, excellent report formatting, excellent referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report.	exceptional professional writing style, exceptional English language proficiency, exceptional level of detail and conciseness, exceptional report formatting, exceptional referencing in Harvard style of academic sources (e.g. journal papers, conference papers, academic books) throughout the report.