

Martyn Simmons

Module Lecturer for CO2104

CO2104: User Interface (UI) Design and Evaluation

Coursework 3 RESIT: High-Fidelity Design Portfolio, Heuristic Evaluation and Assessment Criteria

Topic:

Present a Design Portfolio on producing a high-fidelity prototype (HTML/JavaScript) for a desktop Web-based Music/Film play list, and demonstrate a user based Heuristic Evaluation for it.

Submission Deadline:

Thursday 20th August 2020, 16:59

Coursework weight: 40%

This CW3 addresses the following Intended Learning Outcomes (ILOs):

- **Design and develop interactive, responsive user interfaces**
- **Demonstrate visualisation techniques for user interfaces**
- **Assess accessibility in user interfaces**
- **Demonstrate user interface design and prototyping following a user-centered design process**
- **Evaluate usability of user interfaces with direct/indirect heuristics**

The submission will take place via the Blackboard site – please submit in time and not the last minute

Please submit via the module's Blackboard page using the submission link titled "CW3 - RESIT - Submission Link High-fi Design Portfolio and Heuristic Evaluation"

(Please see the end of the document for information on late submission penalties)

What is a High Fidelity Design Portfolio?

A High Fidelity Design Portfolio is a reflective document that supports a functional prototype. It also charts the development and testing of a functional interface application/piece of technology/service/concept. User Interface (UI) Interaction, and User Experience (UX) designers utilise this development to work with end-users/clients/stakeholders to assess suitability and functionality of the proposed solution.

Alongside the portfolio is a functional development that demonstrates elements of the proposed product, which allows the end-users/clients/stakeholders to test the ideas of the development team. This will not be a complete system, but could be seen as either a “Horizontal”, “Vertical”, or “T” shaped prototype, where a “slice” of the final product will be created to allow for testing of the key requirements, accessibility, usability, and to carry out a feasibility studies for the final development.

What is the high-fidelity Design Portfolio, functional prototype, and Heuristic Evaluation that I need to produce for CW3 RESIT?

This resit requires you to design/create/evaluate a proposed application (web-based) that allows the user to record and suggest a play list for either their music collection or film collection. This app could allow the user to do some of the following...

- record their favourite music/films
- give them a rating
- place them into genre categories.
- create custom play lists from the music/films added
- allow for different members of the family to create their own list within the same application.

For CW3 RESIT you are expected to submit TWO elements. The first is a portfolio of evidence for a typical Web-based desktop (not mobile-based) Music and/or Film playlist application. This document needs to show where elements of the design have met the needs of the end-user, and perform a user based Heuristic Evaluation (HE) and Usability testing involving theoretical users to your system.

The second element of submission is to supply a functional prototype, which has been created using HTML (with CSS), and JavaScript. This prototype can be created in a package of your choosing, as long as it allows for you to code your own HTML, CSS, JavaScript (such as Notepad ++).

The prototype does not need to have a database, and some of the list/log in system should be hard coded into the HTML. It is just to show how this app/website could work if it was to be developed. The option to add music/film could be stored locally, where it is lost when the page is refreshed, as you only need to show who it could work.

Your portfolio must include the following (these are the requirements of your design portfolio):

- Clear, well-structured and presented Introductory (1-2 paragraphs), where you explain the topic of application/technology (in this case the web-based music/film playlist), explaining the motivation behind designing such a system and its key user requirements. This will form part of your evaluation, when you reflect on how the design/focus might have changed due to technical issues, or because of testing (as examples).
- A development list of the functions/features, which you will be developing, to fulfil the development of a “T” shaped / “vertical” prototype. The choice of each element proposed should be justified.
- A series of annotated screenshots (one page of your site per A4 page) that highlights...
 - a short page description (the function of the page)
 - the functionality/features of all element found within each page of your web-based product.
 - where functionality has been simplified for the prototype, but could be expanded in the final product (i.e. additional database interactivity).
 - elements that meet the requirements of the client/end-user.
 - where accessibility has been considered in your implementation (functionality, features and design choices).
- Clear, separate section within your portfolio where you present your designs for your Heuristic evaluation and Usability testing, justifying why you have chosen what you have for testing.
- Clear, separate section within your portfolio where you present the results of your Heuristic evaluation and Usability testing. You should be looking to have had at least **THREE** individuals test your product. These can be class peer but you are encouraged to test with other individual who could benefit from your product. The more suitable individual testing your prototype the better the evaluation.
- Clear, well-written Discussion section on your evaluation findings where you provide clear review of the feedback. This review should then be used to document influence of change to your design, or justification to why your design will not change even when feedback identifies potential issues with end-users.
- Clear, well-structured and presented Conclusion (1-2 paragraphs) where you summarise what you produced, the success of implementing your original idea, and

what would be required to progress this into becoming the starting point for the final development (if it was to be made).

Your functional prototype must include the following.

- A "T" or "vertical" prototype which shows a breadth of features with a smaller focus on some of the functionality.

This could be creating...

- a working log in page (maybe not using a database backend but hard coding in the users details).
- A fully designed first page to the system (once logged in) with all navigation and interactive features working.
- A number of elements of functionality for aspects of what your Music/Film playlist will finally do (e.g. editable list of music to listen to/films to watch, some kind of ranking system, suggestion list for different members of the family).
- The prototype must be developed in a professional manor with...
 - suitable folder structure for managing pages (images in an "image" folder, everything appearing in a root folder),
 - suitable naming conventions (index.html being your first page),
 - the correct use of CSS (inline is acceptable but external is more professional),
 - the correct use of relative path referencing and not full referencing for images and links (references should look like this... "images/logo.jpg" and not "d:/uniwork/UI/CW3/TM/Images/logo.jpg")
 - all images having alternative text added (to aid with accessibility)
 - no use of tables for layout (to aid with accessibility). Tables used only where necessary.
 - being a clean submission with no additional pages, scripts, or images that are not used in the final prototype.

The final submission of your website should be as a single COMPRESS (zip) file that contains all of your development files. It is your responsibility to ensure that everything required is found within this single compressed file. If any elements are missing due to being omitted from the compressed file (an image is missing, or the database) it will be marked as if it was never there. So please check your compressed file before submitting.

For more support to complete this section please look at the learning material found on Blackboard (Workshop material from week 7 - 10)

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How should my Heuristic Evaluation and Usability Testing section look like?

Your Heuristic Evaluation and Usability Testing section in CW3 RESIT should be comprised of the following:

- You need to use Nielsen's 10 Heuristics (as presented within our lectures and tutorials)
- In this evaluation form they should be allowed to work through your prototype looking for how aspects of the design support (or not) Nielsen's 10 Heuristics, and for them to score them using "Severity Ranking"
- You also need to create a simple series of Usability Testing to be used to assess the success of your final design.
- Evidence of collecting results for a number (at least 3 – Friends and/or Family) for your designed usability test.
- A short discussion of how your findings could/have affected your final design.

For more support to complete this section please look at the learning material found on Blackboard (Week 10 lecture video)

"T" Shaped Prototype (50%)										
Classification	First			Upper Second (2.i)	Lower Second (2.ii)	Third	Compensated Fail	Fail		
Mark*	up to 100	80s	70s	60s	50s	40s	to 35	35 to 20	10s	Below 10
Band	Exceptional	Outstanding	Excellent	Competent	Satisfactory	Adequate	Marginal	Little effort	Non-adherence	Nominal
Showing Understanding	An outstanding prototype has been created, which shows a clear indication to how this final product will look and function. The areas of development have been chosen suitably and demonstrate all the requirements of the proposed end-users.	An outstanding prototype has been created. This demonstrates the all proposed features and function to a level that the prototype could be used to test its final design. The design matches the original design (where suitable). Some additional/alternative features/functions have been added which were not in the original design but further match the needs of the proposed user group.	An excellent prototype has been created. This demonstrates the main features and function to a level that the prototype could be used to test its final design. The design matches the original design (where suitable). Some additional/alternative features/functions have been added which were not in the original design but further match the needs of the proposed user group.	A suitable prototype has been created. This demonstrates the main features and function to a level that the prototype could be used to test its final design. The design does mostly match the original design, but where changes have been made these can mostly be justified.	A suitably sized prototype has been created but the choice of the areas of functionality that have been developed do not show the product to a level that would get the most out of testing by stakeholders. What features have been created do, in part, match the needs of the end-user.	A prototype has been created but some of the core features do not all match the needs highlighted for the identified user. A number of functional elements have been identified but have not been created with the needs of the user in mind. The choice of features to be developed may not have been suitable for testing the overall benefits of the product.	A little understanding of the development task has been demonstrated. Very limited functionality has been provided, although it has been highlighted where some of this might appear. Some small elements of what has been attempted do match the designs suggested	It is not clear that the student understands the development task. UI features presented due not match (without reason) the designs suggested in the assignment brief. Little has been developed with minimal functionality.	There is little evidence that the student understands the development task. UI features presented do not match (without reason) the designs suggested in the assignment brief. Very little has been developed. Almost no functionality other than basic navigation.	There is no evidence that the student understands the development task. UI features presented due not match the designs suggested in the assignment brief. Very little has been developed.

							in the assignment briefs			
Quality of Execution	Exceptional professional quality development. All elements of the submission are matching that of industry expectation. No errors in code or missing pages/features/functions.	Outstanding professional quality development. The structure of the product is clear and care has been taken in attempting to meet industry standards. No errors in code or missing pages/features/functions.	Excellent development. An effort is visible to show you have considered producing a product of high quality. Minimal issues with the development can be observed. No errors in code or missing pages/features/functions.	Very good quality piece of work has been produced. Some additional thought could have been given to structure and professionalism (as highlighted in the body of the assignment). Limited errors in code or missing pages/features/functions.	A satisfactory effort has been made for creating a prototype. However, the prototype does not contain all required functionality and features as described in the assignment. Contains a few errors in code or missing pages/features/functions.	Some of the proposed prototype has been created that shows some of the required features and functions. Some aspects of professionalism have been included but not fully (some issues with naming conventions, missing alternative text for images, etc...). Contains a number of errors in code or missing pages/features/functions.	Some evidence is present of professionalism in the development of this prototype is present. Some use of appropriate naming, folder structure, etc... Some attempt at including functionality but some errors mean parts of the product do not work.	Minimal evidence is present for professionalism in the development of this prototype. Some use of appropriate naming, folder structure, etc... Some attempt at including functionality but not all of this works (errors with code)	Very little evidence is present for professionalism in the development of this prototype. Very limited use of appropriate naming, folder structure, etc... Almost no functionality other than basic navigation	No evidence is present for professionalism in the development of this prototype. No/very limited use of appropriate naming, folder structure, etc... No functionality other than basic navigation

Evidence of meeting the users needs and Report (20%)										
Classification	First			Upper Second (2.i)	Lower Second (2.ii)	Third	Compensated Fail	Fail		
Mark*	up to 100	80s	70s	60s	50s	40s	to 35	35 to 20	10s	Below 10
Band	Exceptional	Outstanding	Excellent	Competent	Satisfactory	Adequate	Marginal	Little effort	Non-adherence	Nominal
Showing Understanding	Exceptional presentation and inclusion of walkthroughs in the form of annotations of the hi-fi prototypes goes beyond the asked requirements. Exceptional clarity and explanations. Demonstration of deep understanding of the design presented and the rationale behind each of the prototypes features. Annotations demonstrate learning beyond expected undergraduate level.	Hi-fi prototype annotations make sense, are relevant, insightful, they go beyond the asked requirements and demonstrate outstandingly logical flow of interactions and behaviours within the designed prototype. All annotations are justified, or explained, showing deep understanding and insightful points. All features are annotated.	Excellent hi-fi prototype annotations demonstrate understanding and design considerations that are beyond what is directly required for the submission. The walkthroughs and annotations are all relevant to the topic and perfectly match the presented hi-fi prototypes and all its features/functions.	Confident, inclusive, to-the-point and clear annotations are being presented for the requested hi-fi prototype. Clear and logical flow of interactions and behaviours are present consistently throughout. Walkthroughs and annotations are all relevant to the respective hi-fi prototypes.	Most aspects of the presented hi-fi prototypes are documented with annotations at a depth sufficient to make sense and see the flow of interactions and behaviour. Some features are presented superficially or not clearly. The hi-fi prototype annotations are relevant to the topic.	Some aspects of the presented hi-fi prototypes are walked through in the annotations at a depth sufficient to make sense and see the flow of interactions and behaviour. Some features are presented superficially or not clearly. Some annotations are relevant to the topic.	Limited aspects of the presented hi-fi prototypes are walked through in the annotations at a depth sufficient. Most hi-fi prototype features are presented superficially or not clearly. Only a of the annotations are relevant to the topic.	It is not clear that the student understands the produced hi-fi prototype and are not able to walked through them and/or annotate them sufficiently to make sense. Many of the annotations do not fully match all to the designed prototype.	Little evidence of understanding is present in the hi-fi prototype annotations. Not all features and functions have been annotated.	No evidence of understanding can be seen in the hi-fi prototype annotations. No annotations.
Quality of Writing	The choice of words in the	Report, page description text	Writing is clear and concise as	All written elements can	Successful use of required structure	Structure has been used (e.g.	Some elements	Minimal structure.	Many sections	The vast majority of

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	<p>report, annotations descriptions and structure make this enjoyable and informative for both experts and undergraduates. Quality, features coverage and length is excellent and as requested. Exceptional clarity in expression. No grammar or language errors.</p>	<p>and annotations are easy and enjoyable to read. Features coverage and length is excellent and as requested. Excellent clarity of expression and structure. The use of language and structure in the annotations and in the page descriptions enhance the reader's understanding.</p>	<p>well as inclusive to all the presented features. Length is excellent and as requested. Structure and content presented is as requested in the assignment brief.</p>	<p>be understood. Few grammar or language problems.</p>	<p>throughout and appropriate content. Most writing can be easily understood.</p>	<p>sections, paragraphs, annotations and in-text walkthroughs). Most of the writing can be understood with some effort.</p>	<p>of requested structure and content are missing, but parts of the document require restructuring or rewriting to allow them to be understood. Expression issues that affect clarity are present. Too limited in it depth of detail</p>	<p>Some sections (hi-fi prototype annotations) are missing. Sections of the report cannot be understood or do not relate to the topic. Expression in writing is not clear. Too limited in it depth of detail</p>	<p>are missing. Only a few sections can both be understood and relate to the hi-fi design. Expression in writing is not clear. Too limited in it depth of detail</p>	<p>the sections are missing. No meaningful content related to the assignment brief. Writing and structure is confusing. Too limited in it depth of detail</p>
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Heuristic Evaluation (30%)										
Classification	First			Upper Second (2.i)	Lower Second (2.ii)	Third	Compensated Fail	Fail		
Mark*	up to 100	80s	70s	60s	50s	40s	to 35	35 to 20	10s	Below 10
Band	Exceptional	Outstanding	Excellent	Competent	Satisfactory	Adequate	Marginal	Little effort	Non-adherence	Nominal
Showing Understanding	Exceptional and professional execution of HE and Usability testing. All heuristics have been addressed correctly, accurately and inclusively (i.e. covering both positive and negative design issues). Evidence is present that shows the student understood why we tested with potential end-user, and how this has affected the final design. Demonstration of learning and understanding of the execution of HE and Usability testing is present beyond expected undergraduate level and the	HE and Usability testing presented is justified, accurate and complete (i.e. addresses all the presented features of the hi-fi prototype) showing deep understanding and careful reading/studying of how to execute HE. Evidence is present that shows the student understood why we tested with potential end-user, and how this has affected the final design. All heuristics have been addressed and in an inclusive way (i.e. covering	HE and Usability testing presented show that is beyond what is directly required for the submission. Evidence is present that shows the student understood why we tested with potential end-user, and how this has affected the final design. All heuristics have been addressed correctly, accurately and inclusively (i.e. covering both positive and negative design issues). All HE results make sense and are logical.	Confident, accurate HE and Usability testing for each feature of the hi-fi prototype. Some evidence is present that shows the student understood why we tested with potential end-user, and how some of this has affected the final design. All heuristics have been addressed correctly, accurately and inclusively (i.e. covering both positive and negative design issues).	All heuristics have been addressed correctly, accurately and inclusively (i.e. covering both positive and negative design issues) for most of the features of the hi-fi prototype. Most heuristics are applied at a depth and breadth sufficient to explain and present them. Some evidence is present that shows the student understood why we tested with potential end-user, but little has affected the final design.	Some heuristics have been addressed superficially, mechanically or not clearly to some of the features of the hi-fi prototype. Some understanding of applying HE and Usability testing successfully is present.	Few heuristics have been addressed superficially, mechanically or not clearly to some of the features of some of the hi-fi prototype. They do not cover both negative and positive aspects of the hi-fi prototype. Limited understanding of applying HE successfully is present.	It is not clear that the student understands HE evaluation for the hi-fi prototype and/or apply the HE requirements as requested. Very limited Usability testing is present.	Little evidence of understanding how to conduct HE and Usability testing and/or apply the HE requirements as requested. Almost no Usability testing is present.	No evidence that the student understood HE and Usability testing. No Usability testing is present.

	assignment briefs requirements.	both positive and negative design issues). HE presented goes beyond the assignment briefs requirements.					Limited Usability testing is present.			
Quality of Writing	The choice of words and structure make this enjoyable and informative for both experts and undergraduates. It is exceptionally clear how the HE and Usability testing was conducted. Length and content quality is exceptional and as requested. No grammar or language errors.	Text is easy and enjoyable to read. Length and quality of content is excellent and as requested. Outstanding clarity. The use of language and structure enhance the reader's understanding and helps them understand the full evaluation of the prototype.	Writing is clear and concise. Length and content quality is excellent and as requested. Excellent expression in writing. Structure presented is as requested in the assignment brief.	All writing can be understood. Few grammar or language problems. Length is within the +/-10% allowance.	Successful use of required structure throughout and appropriate content. Most writing can be easily understood. Good expression.	Structure has been used (e.g. sections, paragraphs). Most of the writing can be understood with some effort. Most of the HE and Usability testing report requirements as set in the assignment have been addressed.	Some elements of requested structure and content, but parts of the document require restructuring or rewriting to allow them to be understood. Some clarity issues in writing.	Minimal structure. Sections are missing. Parts of HE and Usability testing cannot be understood or do not relate to the hi-fi prototypes. Many clarity issues.	HE and Usability testing sections are missing. Only a few sections can both be understood and relate to the hi-fi prototypes. Major clarity issues.	No meaningful content related to HE Usability testing, or it is missing

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Penalty regulations for late submissions#

According to University Senate regulations 7.91 to 7.96. Please see below:

“If you hand in your work late, without a good reason for doing so, your mark will be reduced in line with the University’s penalties scheme for late submission of coursework. See Senate Regulation 7.91 to 7.96.

If, however, life has conspired against you to prevent you from meeting an assignment deadline don’t despair. The University recognises that students may suffer from a sudden illness or other serious or significant event that is unforeseen and/or unpreventable and which adversely affects their ability to complete an assessment; in such cases the University’s mitigating circumstances regulations and procedures may be applied. You’ll need to complete a Mitigating Circumstances Form and submit it with supporting evidence to your department.”

“ a deduction of 10% of the maximum mark available from the actual mark achieved by the student shall be imposed upon expiry of the deadline;

a further deduction of 5% of the maximum mark available from the actual mark achieved by the student shall then be imposed on each of the next subsequent working days; the subsequent 24 hour periods described under (b) above shall apply from the expiry of the initial deadline. For example, where a deadline is 14:00 on Wednesday, a 10% penalty shall be deducted at 14:01 on Wednesday, and a subsequent 5% shall be deducted at 14:01 on Thursday;

under (a) and (b) above penalties shall be applied until the pass mark for the assessment has been reached (40% for undergraduate work and 50% for postgraduate work), after which point no further penalties shall be applied unless the work is deemed to be a non-submission”

More information on the above can be viewed at:

<https://www2.le.ac.uk/offices/sas2/assessments/late-submission>

In case of resits, please see here: <https://www2.le.ac.uk/offices/sas2/assessments/results>