**Solent University**

**Assessment Brief 2019-2020**

**Assessment Details**

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Unit Title: |  |  | **Human Computer Interaction** | |  |
|  |  | Unit Code: |  |  | **SAD600** | |  |
|  |  | Unit Leader: |  |  | Dr. Mohammed Al-Husban | |  |
|  |  | Level: |  |  | 6 |  |  |
|  |  | Element name: |  |  | **Report and Software Artefact** | |  |
|  |  | Assessment Title: |  |  | Home Inventory System | |  |
|  |  | Assessment Number: |  |  | AE1 | |  |
|  |  | Assessment Type: |  |  | Project report | |  |
|  |  | Restrictions on Time/Length: |  |  | 3000 words | |  |
|  |  | Consequence of not meeting time/word count limit: |  |  | There is no penalty for submitting below the word/count limit, but students should be aware that there is a risk they may not maximise their potential mark.  Assignments should be presented appropriately in line with the restrictions stated above; if an assignment exceeds the time/word count this will be considered in the marks given using the assessment criteria shown. | |  |
|  |  | Individual/Group: |  |  | Individual in a group context | |  |
|  |  | Assessment Weighting: |  |  | 100% |  |  |
|  |  | Issue Date: |  | 1 | 6 September 2019 | |  |
|  |  | **Hand in Date:** |  |  | **09/12/2019 – 16:00** | |  |
|  |  |  |  |  |
|  |  | Planned Feedback Date: |  |  | Part 1: 7th Oct 19 | |  |
|  |  |  |  | Part 2: 21st Oct 19 | |  |
|  |  |  |  | Part 3: 11th Nov 19 | |  |
|  |  |  |  | Part 4: 25th Nov 19 | |  |
|  |  |  |  | Part 5: 2nd Dec 19 | |  |
|  |  |  |  |  |
|  |  | Mode of Submission: |  |  | Soft Copy & Electronic | |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  | Mode of Marking: |  |  | Soft Copy | |  |
|  |  | Mode of Feedback: |  |  | Soft Copy | |  |
|  |  | Number of copies to be submitted |  |  | 1 |  |  |
|  |  |  |  |  | This assessment will be exempt from anonymous | |  |
|  |  |  |  |  |  |
|  |  | Anonymous Marking |  |  | marking as it falls within an exempt category under the |  |  |
|  |  |  |  |  |
|  |  |  |  |  | University’s Anonymous Marking Policy. | |  |
| **Assessment Task** | | |  |  |  |  |  |
|  |  | See attached |  |  |  |  |  |



**HCI Assessment: Home Inventory System**

**DESIGN BRIEF AND TERMS OF REFERENCE**

Software House PLC (SHP) is a pan European software development group that operates in the UK and the European Union. The company develops and markets off the shelf & bespoke software. They have identified a market for a Home Inventory System Initially this will be aimed at the domestic market but it is envisaged that eventually it may be expanded to deal with the requirements of commercial operations.

You are required to analyse the requirements of the new system and create the interface.

Your terms of reference are to produce an interface that include:

1. Interface, Interactions, information and content design.
2. Explicit implementation of underpinning HCI and design theories, laws, principles and your individual insights.
3. Relevant tasks include search, display and printout of a variety of reports.
4. Business Model. Unique Selling Points, a domain of **creativity and usability** is encouraged by the SHP, this may include additional functions or knowledge management issues for future use, and it may also include statistical framework integration to help predict future trends.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Submission table: | |  |  |  |  |
|  | Introduction | Analysis | Design | Implementation Testing | |
|  | Part 1 | Part 2 | Part 3 | Part 4 | Part 5 |
| **Individual** | Report | Report |  |  |  |
| **Member** | (1000) Words | (1000) Words |  |  |  |
| **Team** |  |  | Poster | Functional | Report |
|  |  |  |  | Interface | (1000) Words |

A comprehensive home inventory is essential for insurance purposes. Documenting all of your belongings and valuables ensures you can replace them should they be damaged or lost through fire, theft or natural disaster. Once a laborious and time-consuming task, compiling an all-inclusive inventory is now quick and easy with home inventory [software.](http://home-inventory-software-review.toptenreviews.com/) Such applications include robust features that allow you to build meticulous inventories for every room in [your home.](http://home-inventory-software-review.toptenreviews.com/) While all inventory applications offer the same primary function of asset management, they can vary greatly when it comes to features and their full range of functionality.

The project will be broken into five distinctive parts, which are explained below.

**Part 1 – Introduction to Home Inventory System**

Deliverable 1000 Words (Per member)

Part 1 will be the assimilation of relevant information about the functionality of the system and requirements for the interface based on the type of user and frequency of use etc.

As a part your team, carryout the following task individually: (Think as a Designer)

1. **Clarification of your overall system** (500 Words)

This is your perception of what is your Home Inventory System? A statement of definition of the system is required. You could use What/Why model to describe your system. A rational justification should be provided, for instance you could design Home Music System or Home Movie system. Think of typical and common home inventory issues we all have (Observations should be documented to support your argument). Insurance policies, where do we keep them? We are running out of, shopping lists, what to eat tonight…etc.

1. **A business model** (500 Words)

It is essential to your system to have a business model, think of mass market this should include Competitive Audit, affiliation business models, and means of generating stream of revenue!!! Deliverable must conclude your business proposition and clearly defined business goals. This section aims at what stockholders/shareholders want?

**Part 2 – User Research Analysis**

Deliverable 1000 Words (Per member)

Part 2 will be to produce an analysis and design document, which will contain all relevant details to enable the production of part three. The team should divide areas of user tasks between the individuals. Each individual team member will be responsible for the analysis and design of their areas. This section should clearly identify the following:

1. User Research (800 Words).

This aims to answer two main questions: Who the users are? What are user needs? This includes user research strategy (Design, Plan, Recruit, Run, Collect and Analyse) this could include, but not restricted to, **personas/ Emails/ Online Surveys/ Interviews/ Cart sorting / Contextual Inquiry**. Deliverable of this part must be **user goals and needs**. Minimum required items: Identify and Recruit, **Survey** - QUANT (10 Q/ 30 S), **Interviews** - QUALE (5 Q / 5 S), **Persona** (3 P), **Scenario** (3 S).

1. Task Analysis (500 Words).

Should be concluded by Tasks identification. As users’ goal can be achieved by defined tasks

1. **Functional Analysis**: Functions and features your system willprovide, service provision perspective should be considered.
2. **Content Analysis**:Where and how contents will be supplied, this should inform your content strategy.
3. Justifications for UCD/TCD. (200 Words).

Rational justification based in intensive user research should be provided

**Part 3 – User Journey**

Deliverable Poster (Per Group)

At this point, as per part 1 and part 2, you should have two essential UX outcomes available, User Research findings in a form user needs and objectives and a clearly defined business goals. In this section, you are required to produce a fully detailed **user journey** including all the following elements:

1. User Persona (Minimum 2 persona representing two typical user groups)
2. User Scenario (Minimum 2)
3. User Goals
4. Flow of Tasks/Information/Screens/IXDs/Contents/Information Architecture
5. Empathy Mapping
6. Usability Metrics

**Part 4 – Prototype**

Deliverable prototype (Per Group)

Part 4 will be the production of a prototype. In your group, you are required to produce the prototype interface using an appropriate prototyping tool. Each team member is responsible for ensuring that their design area is prototyped. Populate your interface prototype with example data sufficient to demonstrate the prototypes functionality.

1. <https://gomockingbird.com/home>
2. <https://www.fluidui.com/>
3. <http://www.foreui.com/>
4. <https://www.uxpin.com/>
5. <http://www.hotgloo.com/>
6. <https://moqups.com/>
7. <http://www.justinmind.com/>

You will be required to demonstrate your software prototype in your normal Tutorial room, times to be advised during week 25 to the unit tutor. Please be sure that your prototype runs in this room beforehand. Make sure that when you chose the prototyping tool to consider whether it could be exported and extracted for SOL submission. Alternatively, a web link of the prototype needs to be valid for at least 90 days.

**Part 5 – Usability Testing**

Deliverable 1000 Words (Per Group)

Part five will be the usability testing. As part of your interface implementation process, you will have to test your interface. Your team will be responsible for what UX or Usability testing you will be carrying out, and accordingly, design the test and have it approved by your tutor. You should recruit 5 participants to test the project, with predefined demographical criteria, you will be responsible to bring them to the lab and test your interface. Data analysis of this part should inform the final design, and this should be documented in 1500 words report supported with 5 heat maps and 3 gaze plots.

Usability testing metrics:

* Layout: Inability to detect something users need to find; Aesthetic problems; Unnecessary Information.
* Terminology: Unable to understand the terminology.
* Feedback: User does not receive relevant feedback or it is inconsistent with what the user expects.
* Comprehension: Inability to understand the instructions given to users on the site.****
* Data Entry: Problems with entering information.****
* Navigation: Problems with finding users way around the test site/system/software.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **A** | **B** |  | **C** | | **D** | **F** |
|  |
| **Analysis of User experience requirements, usability planning & design (ref L.O. K1,C1,P1)** | | | | | |  |
|  |  |  |  |  |  |  |
| Able to critically analyse UX |  |  |  |  |  | Identification, |
| problem and conduct a thorough | Good understanding of UX | Able to recognise a UX | | | Can identify some key | analysis, planning of |
| analysis, plan & design of a | analysis techniques and | research issues and apply a | | | elements of the HCI | a poor standard |
| development problem, select | methodologies evidenced | series of steps | | | problem and plan a set of | which does not meet |
| effectively between different | by set of UX analytical | in providing a solution to a | | | actions to achieve that task | or address problem |
| alternatives and provide | artefacts. Able to apply a | usability & interaction | | | based upon a given method. | area. Does not reach |
| justification in the context of | suitable, | development problem. | | | Although sufficient has flaws | required threshold. |
| problem and in the light of | logical series of steps | However, analysis or | | | in elements and/or actions, | Doesn’t include UX |
| existing HCI theory. | effectively and | design may be weak in | | | and/or method. Analysis has | artefact. |
| To include: User analysis, task | consistently in providing | parts or use of the | | | the minimum required |  |
| analysis, screen | a solution to a usability | methodology inconsistent. | | | elements that exceed the |  |
| designs, windows hierarchy | & interaction/software | To include: User analysis, | | | threshold. |  |
| diagrams etc. More | development problem. To | task analysis, screen | | |  |  |
| complete designs will include | include: User analysis, task | designs, windows hierarchy | | |  |  |
| establishment of | analysis, screen | diagrams. | | |  |  |
| usability requirements for | designs, windows hierarchy |  |  |  |  |  |
| subsequent evaluation. | diagrams. |  |  |  |  |  |
|  | | | |  |  |  |
| **Implementation of Design and Evaluation (ref L.O. K1,C1)** | | |  |  |  |  |
|  |  |  | |  |  |  |
| Able to produce a usable and | Can implement a design | Can implement an HCI | | | Can apply visual | Does not reach |
| robust interface with fully | spec. in full, within a | problem solution from a | | | environment design tools | required threshold. |
| functional components from a | visual environment | design specification | | | and techniques in solving a | Implementation & |
| given specification fully | well-informed by | informed by evaluation. | | | structured and/or user | evaluation |
| informed by evaluation. | evaluation while | The specification may not | | | related problem informed by | inadequate. |
| Demonstrates exceptional skill | respecting good | be implemented in full | | | evaluation. However, the |  |
| in the use of the visual | professional HCI | and/or the system may not | | | solution may be partial or |  |
| development environment. | principles and practice. | be sufficiently robust. | | | may employ only a subset of |  |
| Comprehensive and thorough | Some robust usability | Some evaluation / testing | | | the appropriate techniques. |  |
| evaluation and usability testing. | evaluation / testing. | will have been carried out. | | | Evaluation superficial, |  |
|  |  |  |  |  | marginal testing. |  |
| **Identification and appraisal of key areas of work (ref L.O. C1,P1)** | | | | |  |  |
|  |  |  | |  |  |  |
| Able to define and conduct a | Able to define and | Able to define and reflect | | | Able to describe and partly | Does not reach |
| rigorous critique of key areas in | reflect upon key areas in | on key areas in the context | | | reflect on some key | required threshold. |
| the context of very clearly | the context of well- | of recognized HCI issues. | | | elements within the HCI | Identification & |
| defined HCI issues and to | defined HCI issues and | Some solid critical | | | area. Definition and critical | appraisal of a poor |
| evaluate the solution and the | provide a critical | evaluation against original | | | evaluation is superficial. | standard which fails |
| solution strategy with reference | assessment of actions | requirements though this | | |  | to reach required |
| to existing theory. Able to | taken. Able to identify | could be extended. | | |  | threshold. |
| assess the implications of | alternative solution |  |  |  |  |  |
| adopting alternative solution | strategies. |  |  |  |  |  |
| strategies |  |  |  |  |  |  |
|  |  |  | |  |  |  |
| **Knowledge and Understanding & Contribution to group (ref L.O. C1,T1)** | | | |  |  |  |
|  |  |  |
|  |  |  | | |  |  |
| Demonstrates a detailed | Comprehensive overall | Demonstrates familiarity | | | Satisfactory understanding | Does not reach |
| recognition and knowledge of | understanding of issues | with issues and practice in | | | and identification of HCI | required threshold. |
| theory & practice in the context | & practice in the context | the context of human- | | | issues, design capabilities , | Inaccuracies / |
| of human digital interaction and | of human digital | digital interaction with a | | | evaluation issues and | omissions in areas of |
| an in-depth identification and | interaction with a | software model. | | | functionally of the interface | theory & practice may |
| understanding of concepts. | software model. Has | Reasonable familiarity with | | | and software model but | be substantial with |
| Has the ability to synthesize | read around the subject | recommended reading. | | | lacking in depth and | irrelevancies. |
| and apply information in the | and is able to integrate | Some gaps in significant | | | breadth. Minor contribution | Struggles or fails to |
| solution of a problem in | and organise | areas. Contribution to | | | to group. Poor written | engage with |
| conjunction with team. Makes a | information. Has clearly | group is acceptably | | | reflection on work | concepts, issues |
| full well managed & positive | worked with the team | managed with some gaps | | | contributed to group with | within HCI. Very |
| contribution to work produced | and made a significant | in depth and breadth. | | | little or no example | little or no reflection |
| by group. Is able to reflect fully | contribution to | Written reflection of | | | artefacts, poor referencing. | on contribution with |
| on how contribution is made | group/team work. Able | contribution is constructed | | |  | no example artefacts. |
| with fully referenced clear | to reflect on how | clearly with some gaps and | | |  |  |
| example artefacts. | contribution is made with | few example artefacts | | |  |  |
|  | referenced examples. | which may not be clearly | | |  |  |
|  |  | referenced. | | |  |  |
| **Presentation & planning (ref L.O. C1,P1,T1)** | |  |  |  |  |  |
| Comprehensive, detailed, | Provides a coherent | Provides a coherent style | | | Meets the basic guidelines | Does not reach |
| coherent, & consistent | clear well planned | and structure for the | | | for a given presentation and | required threshold. |
| throughout with no errors of | whole. Consistent in | subject in hand with some | | | presentational style. | Aspects substantially |
| rationale reasoning or fact, | rationale, reasoning , | structural and information | | | Evidence of planning. | unclear, incoherent or |
| Very well planned. | Planning. | defects. Well planned. | | |  | missing |

**Assessment criteria**

**Late Submissions**

1. If this assessment is submitted late i.e. within 5 working days of the submission deadline, the mark will be capped at 40% if a pass mark is achieved;
2. If this assessment is being submitted as a referred piece of work (second or third attempt) then it must be submitted by the deadline date; any Refer assessment submitted late will be regarded as a non-submission and will be awarded a zero.

[http://portal.solent.ac.uk/documents/academic-services/academic-handbook/section-2/2o-assessment-policy-annex-1-assessment-regulations.pdf? t=1411116004479](http://portal.solent.ac.uk/documents/academic-services/academic-handbook/section-2/2o-assessment-policy-annex-1-assessment-regulations.pdf?t=1411116004479)

**Extenuating Circumstances**

The University's Extenuating Circumstances procedure is in place if there are genuine circumstances that may prevent a student submitting an assessment. If students are not 'fit to study', they can either request an extension to the submission deadline of 5 working days or they can request to submit the assessment at the next opportunity (Defer). In both instances students must submit an EC application with relevant evidence. If accepted by the EC Panel there will be no academic penalty for late submission or non-submission dependent on what is requested. Students are reminded that EC covers only short term issues (20 working days) and that if they experience longer term matters that impact on learning then they must contact a Student Achievement Officer for advice.

A summary of guidance notes for students is given below:

<http://portal.solent.ac.uk/documents/academic-services/academic-handbook/section-2/2p-extenuating-circumstances.pdf?t=1465219496259>

**Academic Misconduct**

Any submission must be students' own work and, where facts or ideas have been used from other sources, these sources must be appropriately referenced. The University's Academic Handbook includes the definitions of all practices that will be deemed to constitute academic misconduct. Students should check this link before submitting their work.

Procedures relating to student academic misconduct are given below:

<http://portal.solent.ac.uk/documents/academic-services/academic-handbook/section-2/2l-student-academic-misconduct.pdf?t=1465219589387>

**Ethics Policy**

The work being carried out by students must be in compliance with the Ethics Policy. Where there is an ethical issue, as specified within the Ethics Policy, then students will need an ethics release or an ethical approval prior to the start of the project.

The Ethics Policy is contained within Section 2S of the Academic Handbook:

<http://portal.solent.ac.uk/documents/academic-services/academic-handbook/section-2/2s-university-ethics-policy.pdf>

**Anonymous Marking**

A copy of the University's Policy on Anonymous Marking, process details and student guidance on submission sheet completion can be found on the following links, which are also uploaded on the Student Portal.

Fact Sheet: <http://portal.solent.ac.uk/documents/academic-services/policies-procedures-guidelines/anonymous-marking-fact-sheet.pdf>

Process: <http://portal.solent.ac.uk/documents/academic-services/policies-procedures-guidelines/anonymous-marking-process.pdf>

**Grade marking**

The University uses a letter grade scale for the marking of assessments. Unless students have been specifically informed otherwise their marked assignment will be awarded a letter grade. More detailed information on grade marking and the grade scale can be found on SOL.

Policy: http://portal.solent.ac.uk/documents/academic-services/academic-handbook/section-2/2o-assessment-policy.pdf