



12 Pages

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

FORENAME(S): ESSAM

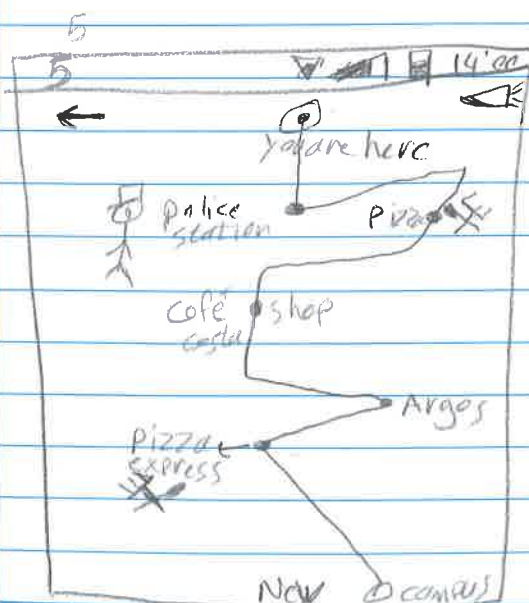
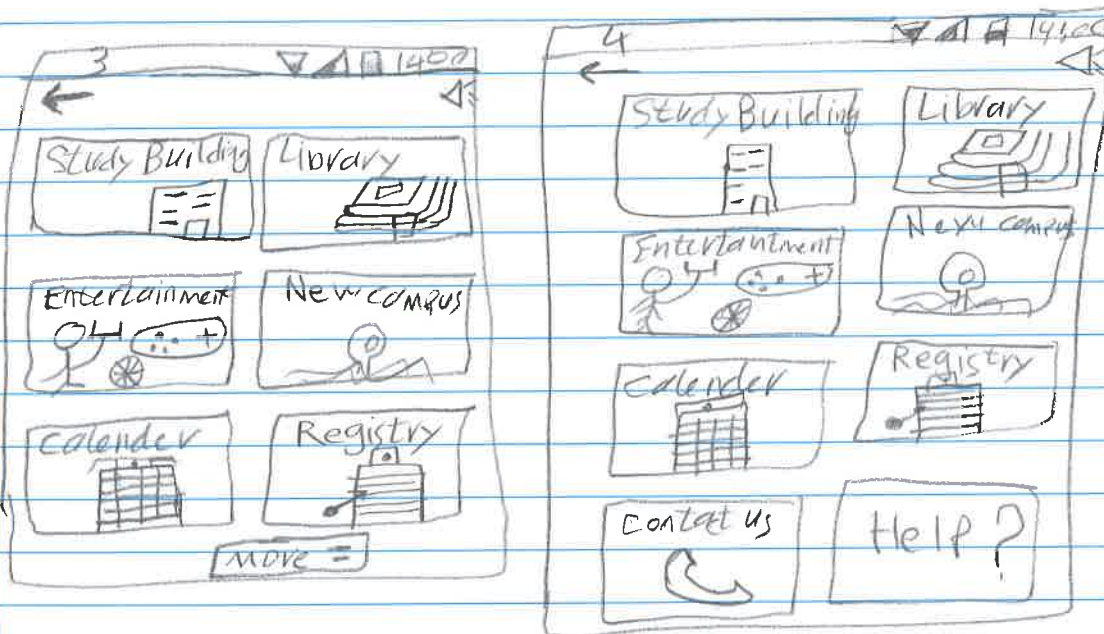
1	Student Number	P147174
2	Title of Examination Paper	
3	Module Code	MBX01990
4	Date and Time of Examination	Friday 18/05/2018
5	Examination Venue	
6	Seat Number	G041
7	Number of Answer Books handed in	

List the numbers of the questions you have attempted	Office Use
~~22~~ 1	17 17
2	8 10
3	13 13
Office Use	38 / 75

53%

51%

1a

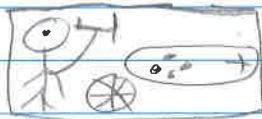


a) New Students Sometimes don't know what to do or where to go. So creating mobile app for the University will help students to navigate their way.

Metaphors is a way of making complex things to easy. Most of the students know Books is related to library. sketch 4, 5



another ~~metaphor~~ metaphor is Entertainment. students already knew the game such as football or Gym. sketch 4, 5



This help students to navigate easily. Applying human factors such as human memory, consider colours blinders, and human reasoning

affordance is a way of showing how an object should be used, as example above metaphors show each icon what its content. more after p 3

Good design & explanation - extra work at end.

b) Different usability guidelines were ~~used~~ used

Dix's

Learnability & Predictability, Familiarity and consistency

Mobile app should be easy to use and some elements should be familiar with students ~~state~~ such as calendar or every campus have cafe or Library. - early focus on users, iterative user testing, flexibility, Robustness

Life cycle:

- 1- Inception phase = List of questions, interviews
- 2- Requirements phase = users requirements, identify hardware
- 3- System specification = site map or Paper prototype.
- 4- Testing = testing codes, Databases
- 5- Installation = install all the files
- 6- Training = demonstrate the app

Good brief ensure with phases of development followed.

C. Users are not familiar with codes, users only looking for an easy interface design.
Asking users requirements is very important, as well as, discuss the system with users in early stages will reduce the problem in usability as the users will be already familiar with the design.

Involve the users in the design ^{will} improve the design and will save the cost. ~~From design redesign~~ redesign the interface.

Some good justification here

3

3

17

Q2 following usability guidelines such as

Dix's and (Gould, Lewis) and (Malich, Nielsen)

Lead us to prepare for the project first.

According to Gould and Lewis:

- 1- early focus on users developers should have contact with end users and work environment
 - 2- early, iterative user testing.
 - 3- iterative design = paper prototype, user testing, feedback and redesign until the app is acceptable.
 - 4- Integrated design: Design interface, training manuals.
- (Essam, 2018)

System should be always prepared before starting any steps. prepare the project should start from point 1 to the end following all the guidelines belong the project.

Putted in some references & guidelines very briefly & strategy outlined.

b. Involve users in the design is highly recommended as users are going to use the system in the future. According to usability evaluation types ~~also~~ such as collecting users opinion:

checking users opinions of a design is an easy way to avoid unusable and unattractive feature.

Co-operative evaluation:

A technique to improve user interface ~~design~~ specification by detecting the possible usability problem in an ~~early~~ early prototype or ~~or~~ partial simulation. it sets down procedures by which a designer can work with the sort of people who will ultimately use the software in their daily work ~~or~~ so that together they can identify potential problems and their solutions.

Examples such as focus on users on early stages developers should have direct contact with users

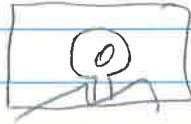
*Ability general speaking.
Some good justification*

3
3
10

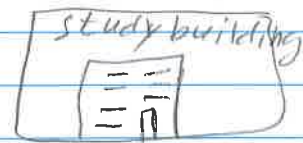
Q3 Different type of usability guidelines are there

Dix's:

Learnability: consider build the app to be easy to use. using images that users are familiar with. such as map icon

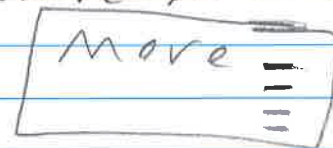


or study building



These examples are already known by users.

Consistency: using button ~~do~~ with ~~the~~ small line on it help users to know that there are more. sketch 3

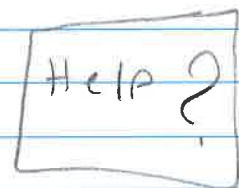


Flexibility = system should be easy to use. ~~organ~~ organize the mobile interface design will help students to ~~con~~ concentrate more on the app.

Another guidelines such as ~~Card and Tavis molich~~ and ~~Robustness~~ Nielsen;

1. Speak the user's language

2. minimize the user's memory load ~~with~~ less text and more metaphors such as help icon user already ~~has~~ know that icon.



3. ~~simple~~ use simple and natural dialogue.

4. provide clearly marked exits such as: arrow in all pages so users can get back if they select ~~the wrong~~ wrong element



App Applying usability guidelines have some problems such as:

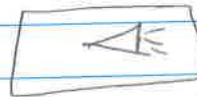
- 1- could be difficult to apply,
- 2- different advice.
- 3- The use of usability guidelines is ~~an~~ no substitute for usability testing.

Specific interface features included good

b. There are ~~an~~ 1,7 million blind and sighted people in the UK. According to disability discrimination Act 1995 every service should be accessible for disabled people.

Different disability types are there:

- 1- Visual Disability: ~~and~~ consider light background and black text for colour blind users
 - 2- Hearing Disability: using sound as an extra will help hearing disability people reduce the problem.
 - 3- motor Disability: some users can't use keyboard so creating a software are important for them.
- using sound on the app will help disabled students a lot. Sketch on all pages



Following Accessibility guidelines for web design in order to allow disabled student to access the app.

- 1- Perceivable: provide text alternatives for any non-text content such as images insted of text. creating content that can be presented in different ways.
- 2- Operable = Provide ways to help users navigate, find content, and determine where they are.

3- Understandable: make all text readable and understandable make all pages appears in predictable way.

Good general points - examples from design highly mentured.

Continue Q 1 =

Human factors: considering different type of students such as international students or students are not familiar with Swansea city would lead to use different techniques such as (Human memory Human factors, metaphors and affordance)

Human factors:

consider colour blindness (make light background and black text)

Human reasoning: (That ever campus have cafe or ~~entertainment~~ entertainment)

Human memory (Less text and more images) student could remember images rather than text and specially if a metaphors

~~Affordance~~:

metaphors: (Study building, Library, speaker) these available in ~~sketch~~ 3 and 4.
Sketch

included in 1a - better to add to another question!

5

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