

**CIS099-2 – Mobile Application Development**

**2020-2021**

**Assessment 2 – Individual / Group Mobile Application Development Report**

**Group: XXX**

**Student ID: XXXXXXX**

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//This will need to be updated for your report. Topics do not all relate to this report

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CIS099-2 – Mobile Application Development

Assessment 2  
Individual / Group Mobile Application Development Report

1. Introduction

Project Background and Problem Identification.

//You can take some of this from the Assignment brief

[Every student must design a mobile application and produce a clear and consistent report to describe your market research, design, and evaluation plan.]

//What have you be asked to do, and what problem are you going to find a solution for? //You can go into detail here as to why you have chosen this topic.

Project Proposal

//What are you going to produce, why and how? You need some innovative ideas which may come from your market research (later)

Aims and Objectives

Aim(s)

Objectives

Secondary Market Research

//How did you approach this market research? How do you find related apps, and how did you identify the competition?

//What websites did you visit?

//Did you search for similar Play Store, Google Play, Amazon AppStore?

//What Apps are trending? How did you find out?

//Review related applications, and detail their pros and cons.

//Analyse these findings

//Need some innovative / original ideas for a good mark

Scope

//What are you going to design/implement and what are you going to leave out?

Project Constraints

Constraints include lack of technical knowledge, lack of time, poor planning

Project Risks

Scope of project too large for the student

Inability to meet deadlines and keep to plan / schedule

Lack of determination to develop technical knowledge and skills

Lack of support from the main stakeholders

Justification of Selection of Particular Technologies or Techniques

Why create a hybrid app versus native app? What is the difference?

Justify your choice of technology.

Did you use Adobe PhoneGap / Cordova as suggested? If not, you must explain your choice of an alternative tecnology

What alternatives did you consider?

Are you just aiming at Android users or both iPhone and Android users, and why?

Resources

* Software
* Hardware
* Graphics:

Methodology

An Agile (Anon, 2001) / prototyping methodology (tryqa.com, 2018) will be adopted for this project with stakeholders being consulted at every stage in the process. A simple, functional prototype will be developed within two weeks and will be demonstrated to the client and other stakeholders which will enable them to comment on functionality and layout.

Stakeholders

University of Bedfordshire students

University lecturers

Students from other Universities/Campuses

Overview of Functional, Technical and Usability Requirements

* Functional Requirements
* Operational Requirements
* Usability Requirements
  + User-centric design
  + The design should demonstrate evidence of a good understanding of mobile app interface design issues – for example, a consistent design for each page, layout of content, use of colour schemes and images, navigational methods, usability when viewed at various device resolutions and various device dimensions.
  + Simple and short forms for entering details
  + Content can be added and updated easily and quickly
  + Clear and intuitive navigation
  + Complies with WW3 Web Accessibility Standards (WCAG)
  + Text easy to read and resizable  
    Language style should be appropriate with absence of grammar / spelling errors
  + There should be a clear layout which remains consistent throughout the site. Style, layout and content should be appropriate for the purpose of the app.

1. App Design

Identify Target Users

Primary Market Research

//Conduct questionnaire / survey aimed at target users.

//Display your questionnaires

//Responses

/Analysis of responses

Personas, Scenarios and Uses Cases

App Prototype (sketches/screenshots, etc.)

//Use Balsamiq for this

//Annotate your prototype sketches/screenshots based on the design guidelines/principles, lessons learnt from the secondary market research and the preferences of your personas from the primary market research.

1. Mobile App Development / Implementation

You should describe the development stages

Include code snippets. Complete fully commented code should go into the Appendix

You should discuss YOUR application. How was the program created?

Explain how you manged the implementation. How did you ensure all group members actively contributed to writing code? How did you distribute the workload? Was it successful?

What mobile app development technology did you use? Justify your choice. What IDE / text editor, emulator did you use?

What problems did you encounter during the coding, and explain how you overcame these?

Include snippets of code here – that either caused problems or show original, novel approaches

Did you save data? How? – ie. local storage, Web SQL, other method?

Detailed discussion of your experience coding is required here.

Did you incorporate any novel approaches to coding and meeting the Assignment requirements?

1. Testing

Include evidence of detailed and robust testing.

There are various ways to document this…

Test log in tabular or linear format

For example, Test Plan / Test Log (tabular format) with date, input/expected output/actual output and screen shot of result.

You need to include

* Test No
* Test Date
* Purpose of Test
* Input data or action
* Expected Result
* Actual Result
* Action Needed
* Screenshot

1. App Evaluation Plan

//Describe your user evaluation plan at different stages of your app design and development based on DECIDE framework.

//The key questions to answer are:   
What do you want to evaluate?   
Which evaluation methods and techniques are you going to use?   
Who are you going to evaluate with?   
What are the success factors of your evaluation?   
Are there any practical or ethical issues that you need to be aware of when you carry out the user evaluation?

//Note: There are so many ways of tackling this. I would suggest you look at the examples I have given you and based your plan on these.

//In my view, evaluation is ‘testing’ with users.

//What you need is

//1) a plan for testing the design / prototype

//2) a plan for testing at a couple of stages during developing with real users, and the final product.

1. User Evaluation (4 pages max.)

* Report the user evaluation set ups
* Report your user evaluation results

1. Mobile app search engine optimization (SEO) and marketing strategy (2 pages max.)

* Your plan to market the mobile app
* Your plan to achieve a good SEO.
* How do you protect and develop your IP?

1. Discussion / Critical Analysis / Reflection

* What went well and what went wrong?
* What would you have done differently?
* How you would improve it in the future?

This part is very important. You must discuss the project, group work, and time management skills.

Basically, you are evaluating what you have done. Did you achieve all the required specification of the Assignment brief? If not, why not? Discuss the problems you encountered and how you overcame them.

Did you give yourselves enough time to accomplish this work? Was it harder than you expected? What have you learned from tackling this Assignment?

Did your group work well together? What did you learn about the dynamics of group work?

What went wrong? What went well? How did the group work together?

How did you manage the project / work distribution / communications?

What did you achieve? What did you not achieve?

Did this work enhance your understanding of mobile app development? Did it motivate you to learn more?

If you had to undertake this or something similar again would you tackle it differently?

What improvements or enhancements would you recommend for a future iteration of this project?

What did you learn technically and about project management from completing this assignment?

What further enhancements would you recommend?

1. Conclusion

What did you set out to do and did you achieve this?

Further/future work…..

References

Harvard Referencing System. Any reference must be cited in text

Anon (2001) Agile Manifesto. Accessed at: <https://agilemanifesto.org/>

tryqa.com (2018) What is Prototype model- advantages, disadvantages and when to use it? Accessed at: <http://tryqa.com/what-is-prototype-model-advantages-disadvantages-and-when-to-use-it/>

Appendix

Project Plan/Schedule

//You could produce a plan something like this. I have left this populated with topics from another website design project.

Project Plan

//This is an example only

|  |  |  |
| --- | --- | --- |
| Week No. | Tasks | Priority |
|  | Research topic for website proposal |  |
|  | Conduct online research on web applications similar to the selected project scenario. |  |
|  | Identity stakeholders and target audience |  |
|  | Discuss initial specifications with stake holders |  |
|  | Write Project Proposal |  |
|  | Create interactive prototypes |  |
|  | Requirements Analysis   * Interviews * Questionnaires   Analyse results |  |
|  | List Requirements   * Functional Requirements * Operational Requirements * Usability Requirements |  |
|  | Source graphics required |  |
|  | Create website front-end incorporating Bootstrap design template |  |
|  | Conceptual / Logical Database Design  Create Entity Relationship Model (ERM)  Design and create MySQL database with test data |  |
|  | Create PHP scripts as required |  |
|  | Create login functionality |  |
|  | Create search functionality |  |
|  | Functionality testing |  |
|  | Usability testing |  |
|  | Evaluate and discuss project outcome |  |
|  | Make recommendations for future developments |  |
|  | Write Project Report |  |
|  | Project Presentation |  |

Team Member Contribution List

|  |  |  |
| --- | --- | --- |
| Student ID | Student Name | Role / Contribution |
|  |  |  |
|  |  |  |
|  |  |  |

Complete Code (fully commented)

Complete project code

Include file/class names

Make sure you code is fully commented

You could include:

Screen shots of your interfaces

Anything else that you might want to include that does not fit well into the main report body.