



**FACULTY OF SCIENCE AND
ENGINEERING SEMESTER 2, 2018**

IAB330 - Mobile App Design

Assignment 1: App Design

Due Date: Friday, August 24, 11:59 pm

Submission Method: Blackboard

Overview: You will submit a report that explains the benefits and feasibility of your mobile development project that will be executed throughout the semester. The report includes a survey of related applications, design decisions, and storyboards.

Submission Coversheet Declaration

You must sign below. By signing this form you agree to the following:

- We declare that all of the work submitted for this assignment is our own original work except for material that is explicitly referenced and for which we have permission, or which is freely available (and also referenced).
- We agree that QUT may archive this assignment for an indefinite period of time, and use it in the future for educational purposes including, but not limited to: as an example of previous work; as the basis for assignments, lectures or tutorials; for comparison when scanning for plagiarism, etc.
- We agree to indemnify QUT and hold it blameless if copyright infringements are found in this work and the copyright owner takes action against QUT that is not covered by the normal terms of Educational Use.

The assignment should be completed in a team of 4 students. Please consult with your tutor and unit coordinator if you have any issues.

Chosen Project Name:		
Team Member Details		
Student Number	Student Name	Signature

A. Background Research (10 marks)

Motivation

To design a good mobile app, designers and developers need to understand the project objective, and they should learn from other good example apps.

Task 1: Project choice and executive summary of the chosen project

(4 marks)

- **Note:** *Once you selected a project by submitting Assignment 1, you will not be able to change it. You will complete both assignments (Mobile App Design and Implementation) for the chosen mobile app project.*
- Choose a project and explain in an executive summary (max. 1 page) the required features and functionalities, the target user group, the user demand and benefits of your app, other existing apps, and explain how your mobile application will fulfill user needs.

Task 2: Background Research and review of related mobile applications

(6 marks)

- **Problem Space Presentation and Discussion**

Present and discuss the problem space of your application, including stakeholders and their challenges and resulting user needs. Provide the reasoning behind your project idea and discuss how the problem space informed your approach.

Mobile Application Review

- For each reviewed application, provide the name of the app, its URL (in the appstore) and screenshots of each key UI component with a description on how it is used.
- For each app, discuss the positive and negative aspects from the perspectives of: *approach, features and functionality, general UI design, page navigation.*
- Focus your discussion on what you can learn from the reviewed apps and how it can help you improve and innovate the design of your own mobile app.

B. Mobile App Design (20 marks)

Task 1: User Interface Design (10 marks)

- **UI Prototype (Wireframes)**
Present your prototype of pages and explain the user interface. Elaborate on the UI layout of pages (e.g., user inputs), the applied navigation strategy, applied navigation patterns, applied forms patterns, applied design principles.
- **Present user stories**
Elaborate use scenarios in text and graphically.
- **Explain the applied UI patterns and UI styling considerations**

Task 2: Software Architecture and Implementation (10 marks)

- **Describe the overall system architecture**
Provide a diagram and description of the various components in the broader system, their role and how they integrate with your application.
- **Describe the overall software architecture**
Describe your data model (e.g., using UML), explain which architectural patterns you are planning to apply and justify why.
- **Flexibility and Maintainability**
Explain how your architecture supports adaptations for changes of requirements (e.g. UI changes), technologies (e.g., migrate to other platforms), application logic (e.g., page navigation) and additional features. Identify and discuss whether the chosen patterns may have drawbacks.
- **Integration**
Explain how your architecture supports the future integration with Cloud solutions, Web Services or back-end systems.
- **Testing**
Explain how your software architecture supports testing.

IAB330 Assessment Criteria: Assignment 1 - Mobile App Design

CRITERION	MARKS	7 85%-100%	6 75%-84%	5 65%-74%	4 50%-64%	Refer / Fail 0%-49%
A. Background Research Task A.1: Executive Summary of Your Project Choose a project and explain in an executive summary (max. 1 page) the required features and functionalities, the target user group, the user demand and benefits of your app, other existing apps, and explain how your mobile application will fulfill user needs.	/4	Exceptional executive summary. The requirements are very well understood and explained, the target user group(s) are identified, the user demand is exceptionally well understood, existing similar mobile apps are identified and exceptionally well presented, and the summary explains exceptionally well how the new mobile app will fulfil users' needs (2 mark). The executive summary is very clearly written, easy to read, does not contain errors and is exceptionally well presented (2 mark).	Very good executive summary. The requirements are very well understood and explained, the target user group(s) are identified, the user demand is very well understood, existing similar mobile apps are identified and very well presented, and the summary explains very well how the new mobile app will fulfil users' needs. The executive summary is very clearly written, easy to read, does not contain errors and is very well presented.	Good executive summary. The requirements are well understood and explained, the target user group(s) are identified, the user demand is well understood, existing similar mobile apps are identified and well presented, and the summary explains how the new mobile app will fulfil users' needs. The executive summary is very clearly written, easy to read, contains very few errors and is well presented.	Acceptable executive summary. The requirements are overall understood and explained, some target user group(s) are identified, the user demand is understood, some existing similar mobile apps are identified and presented, and the summary explains how the new mobile app will fulfil users' needs. The executive summary is clear and contains very few errors and is well presented.	Inadequate or missing executive summary. Requirements misunderstood.
A. Background Research Task A.2: Research and review related mobile applications Presentation and discussion the problem space. Reasoning behind project approach Presentation of mobile applications. Critical evaluation of mobile applications approach, features and UI. Discussion of key learnings and their implication for the design of the new mobile app.	/6	Exceptional background research. An exceptional problem space presentation and exploration of reasoning behind the approach (2 marks) An exceptional review of related app is presented, with all required details. The reviewed app is exceptionally well discussed in terms of negative and positive aspects of UI design, page navigation, features and functionality (2 marks). Exceptional discussion on what has been learned from the reviewed apps, and how the reviews help design the new mobile app (2 marks).	Very good background research. A very good review of related apps is presented, with all required details. Each reviewed app is very well discussed in terms of negative and positive aspects of UI design, page navigation, features and functionality. Very good discussion on what has been learned from the reviewed apps. Very good discussion on how the reviews help design the new mobile app.	Good background research. A good review of related apps is presented, with most required details. Each reviewed app is well discussed in terms of negative and positive aspects of UI design, page navigation, features and functionality. Good discussion on what has been learned from the reviewed apps. Good discussion on how the reviews help design the new mobile app.	Acceptable background research. A review of related apps is presented, with sufficient required details. Each reviewed app is discussed in terms of negative and positive aspects of UI design, page navigation, features and functionality. Acceptable discussion on what has been learned from the reviewed apps. Acceptable discussion on how the reviews help design the new mobile app.	Inadequate or missing background research. A review of some related apps is presented, however with insufficient required details. Insufficient or missing discussion on what has been learned from the reviewed apps. Insufficient or missing discussion on how the reviews help design the new mobile app.

B. Mobile App Design Task B.1: User Interface Design UI Prototype (Wireframes) Present storyboard Elaborate use scenarios in text and graphically. Explain the applied UI patterns and UI styling considerations	/10	Exceptional Mobile App UI Design Exceptional UI Prototype and user stories (5 marks). Applied UI patterns are exceptionally well applied and explained, along with UI styling considerations (3 marks) Exceptional error-free presentation (2 marks)	Very good Mobile App UI Design Very good UI Prototype and user stories. Applied UI patterns are very well applied and explained, along with UI styling considerations. Very good presentation with very few errors	Good Mobile App UI Design Good UI Prototype and user stories. Applied UI patterns are explained, along with UI styling considerations. Good presentation	Acceptable Mobile App UI Design Acceptable UI Prototype and user stories. Some applied UI patterns are explained, along with some UI styling considerations. Acceptable presentation	Inadequate or missing Mobile App UI Design Inadequate or missing UI Prototype and user stories. UI patterns are not applied or explained, few or missing UI styling considerations. Inadequate presentation
Task B.2: Software Architecture and Implementation System architecture Software architecture Data model Architectural patterns and any potential drawbacks Flexibility and Maintainability Integration Testing	/10	Exceptional system architecture with an excellent understanding of role of components and their integration. (2) Exceptional software architecture that includes a detailed data model, demonstration of exceptional understanding of architectural patterns for mobile apps. (3 marks) Exceptional elaboration on how the software architecture supports maintainability and flexibility, integration and testing (3 marks). The elaboration is well written, clear and easy to understand (2 marks).	Very good system architecture showing a very good understanding of component roles and integration. Very good software architecture that includes a detailed data model, demonstration of very good understanding of architectural patterns for mobile apps. Very good elaboration on how the software architecture supports maintainability and flexibility, integration and testing. The elaboration is well written, clear and easy to understand.	Good system architecture demonstrating a good understanding of the role and integration of its components. Good software architecture that includes a data model, demonstration of good understanding of architectural patterns for mobile apps. Good elaboration on how the software architecture supports maintainability and flexibility, integration and testing. The elaboration is well written.	Acceptable system architecture that includes all the relevant components and demonstrates an understanding of component roles and integration. Acceptable software architecture that includes a data model, demonstration of an understanding of architectural patterns for mobile apps. Acceptable elaboration on how the software architecture supports maintainability and flexibility, integration and testing. The elaboration is acceptable.	Inadequate or missing system architecture, or demonstration of an understanding of component roles and integration. Inadequate or missing software architecture, missing data model, missing demonstration of an understanding of architectural patterns for mobile apps. Inadequate or missing elaboration on how the software architecture supports maintainability and flexibility, integration and testing. The elaboration is insufficient.
TOTAL	/30					