

ISOM3210 Information System Analysis and Design

Team Project Description

INTRODUCTION

HKUST Information Systems Office is a department provide professional IT solutions to HKUST schools and departments.

The Board of Directors of HKUST requests all the business analysts in the office to work in teams; and each team should write up a system proposal of a web-based application system that helps the HKUST community contribute tasks to encourage sustainable development in campus. In addition, the system should help students having better life, such as reducing wastage and conserving valuable resources. (Note: Share economy or social networking applications are not allowed as there are too many similar applications currently available in the market.) **The Board of Directors requires each team to identify and focus on 6-8 key functional requirements (including front-end and back-end functions) of the proposed system.**

You and your team members have to do the following:

1. Identify an application of which an online system can be potentially implemented
2. Perform research and justify the business needs of building an online system for the chosen application
3. Identify functional requirements of the proposed application system
4. Prepare a proposal to the Board of Directors
5. Carry out a structured analysis of business system requirements using the UML standard
6. Present the finalized system proposal to the Board of Directors

DELIVERABLES

The key deliverables of the team project are (1) the proposal and (2) the team project report (i.e. the finalized system proposal):

(1) Proposal (10%)

Each team is required to submit a proposal for our review and comments.

We look into the proposal and to make sure the proposed functional requirements are appropriate. We would appreciate effective and innovative **functional requirements that can potentially provide better lives in campus**. Moreover, to ensure the initial requirement analysis by your team is conducted properly. Refer to Appendix 1 for the proposal template. **Each team should identify at least 6, but no more than 8 key functional requirements.**

(2) Team Project Report (23%)

Each team is required to prepare a system proposal (final report) using the Team Project Report Template. Refer to Appendix 2 for the Team project report template. **Each team should maintain at least 6, but no more than 8 base use cases**, there are no limitations for using other kinds of use cases, such as included and extending use cases. The team project report should be around 23-35 pages.

In the project report, we primarily look into the accuracy and consistency of writing a comprehensive system proposal using the UML standard, while appropriate and creative functional requirements are also crucial.

TIPS TO START THE PROJECT

The 6-8 key functional requirements should include **both front-end (i.e., functions used by consumers/customers) and back-end (i.e., functions used by the company staff/administrators).**

TENTATIVE DUE DATES OF THE KEY DELIVERABLES

- **Proposal:** Oct. 8 and 10 in-class (Week 6)
- **Team project report:** Nov. 25 (Week 13)

Appendix 1. Proposal template**Background of the Project**

1. The Purpose of the System	
a. Background of the Project	1 page
b. Goals of the Project	1 page
c. Feasibility Analysis – Organizational Feasibility	1 page

System Requirements Analysis

2. Actors of the System	2-4 pages
3. The Scope of the System (Use Case Diagram)	2-3 pages
4. Functional Requirements	
a. Initial Use Case Description	4 pages
	<u>11 - 14 pages</u>

(See Project Proposal Template.docx)**Appendix 2. Team project report template****Background of the Project**

1. The Purpose of the System	
a. Background of the Project	1 page
b. Goals of the Project	1 page
c. Feasibility Analysis – Organizational Feasibility	1 page

System Requirements Analysis

2. Actors of the System	2-4 pages
3. The Scope of the System (Use Case Diagram)	1-2 pages
4. Functional Requirements	
a. Elaborated Use Case Description (see Appendix 3)	12-20 pages
b. Class Diagram	1 page
c. Sequence Diagrams of 2 Use Cases	2 pages
d. Behavioral State Machine Diagram of a Class	1 page
5. Non-functional requirements	1-2 pages
	<u>23 – 35 pages</u>

(See Project Report Template.docx)

Note: number of pages are for reference only. For example, if using only half of a page can clearly describe the background of project, it is fine to do so.

Appendix 3. Elaborated use case description template

Use Case ID	
Use Case	
Actors	
Description	
Pre-conditions	
Flow of Events	
Post-conditions	
Alternative Flows	
Priority	
Non-Functional Requirements	
Assumptions	