### **GROUP ASSIGNMENT**

This Group Assignment is divided into three parts: **Part A**, **Part B and Part C**. You will need to form a group of 4 people. All group members will work together for both parts of this Group Assignment. This is a **group** project and therefore any project developed by one, sole, individual will **NOT** be accepted.

This group assignment accounts for 25% of the total coursework components.

The objective of the group assignment is to let you gain some experiences by applying the requirements engineering and analysis modeling techniques learnt in class. You will demonstrate your knowledge of these techniques in the context of a small software development project. In addition, you will learn how to create analysis models for both structured approach and object-oriented approach.

The project can be a choice from any system or application listed below:

- 1) Educational Courseware to learn Mandarin (primary school level)
- 2) Educational Courseware to learn English (primary school level)
- 3) Mobile learning application for tertiary students to learn basic programming language
- 4) Mobile application for bicycle rentals
- 5) Web-based Student Management System
- 6) Online portal for homestays

Each project title will be limited to 5 - 6 groups only. Please register your group using the link below, **latest by Week 4 Friday**.

Google shareable link:

https://docs.google.com/a/1utar.my/spreadsheets/d/1F80KSL\_-RdWfjN2lMvdMABe5Bye1hp6Xuxe0pv3Ry28/edit?usp=sharing

The above project titles are very general. Hence, all team members are required to discuss and determine the project scopes. If necessary, do consult your client (the main contact person is your lecturer).

### How to start?

- Step 1 Find your members and form a group.
- Step 2 Choose a project leader.
- Step 3 The group shall kick start the project. Brainstorm on the given software development project list and decide on the project that the group will undertake.
- Step 4 The project leader needs to register the project title and submit the following details at the given link:
  - Project leader's email address and contact number
  - Group members' names
  - Chosen project

Step 5 – All group members proceed to work on **Part A**. Consult your lecturer if you have any difficulties in this group assignment.

# PART A

You are required to draft up a report containing the specific deliverables (A1 to A4) and upload a softcopy of the report at WBLE.

# **Submission**

Deliverables	<b>Due Date</b>	Remarks
A1 to A4	Week 7,	<ul> <li>Report in Word document format</li> </ul>
(draft)	Friday	• Link will be opened in Week 6 or
	11:59pm	earlier.

## Part A - Deliverables

(A1). Provide a table as shown below, which indicates the role of each team member and a brief description of his or her responsibilities in this project.

No.	Member	Roles	General	Assigned Tasks for
	name		Responsibilities	Each Deliverable
1.	Example:	Example:	Example:	Example:
	Michelle	Project	Michelle oversees the	(A1) brainstorm on the
	Beh	Leader &	management and delivery	available choice of
		Systems	of the assigned project	system or application and
		Analyst	and she is responsible for	delegate tasks to each
			the definition and	group member
			execution of the project	
			plans. Specific tasks are	(A2) conduct study on
			call for meetings to	the chosen system,
			discuss about this	determine the project
			project, delegate tasks to	goal and objectives
			each team member,	
			monitor the progress of	(A3) identify two
			the deliverables that	requirements gathering
			assigned to each member	techniques and provide
			and consult the client as	justifications
			and when needed.	

		(A4) Draft out a list of
		functional requirements
2.		
3.		
4.		

- (A2). Provide a detailed description of the system or application to be developed. This may include the following
  - background information of the project
  - the intended project goal or aim
  - objectives
  - scopes
  - stakeholders' information
  - technology aspects including hardware, software and network infrastructure, and so on.
- (A3). Identify **Three** (3) appropriate requirements gathering/determination techniques and provide justification on the chosen techniques. Explain how each technique is to be applied in the chosen project. Attach any supporting documents (for example, if you choose "interview" as one of the techniques, you have to provide a list of interview questions and its responses)
- (A4). Create a set of functional requirements and non-functional requirements (NFRs) for your choice of system or application.

## PART B and PART C

You are required to write a final report containing all deliverables in **Part A, Part B and Part C.** Besides, you need to submit a hardcopy of the final report, and upload a softcopy of the report at WBLE.

### **Submission**

Deliverables	<b>Due Date</b>	Remarks
A1 to A4  + B1 to B3  + C1 to C3	Week 13, Friday 2:00pm	<ul> <li>Make necessary changes in Part A deliverables after obtaining feedback</li> <li>Hand in a hardcopy of the Final Report at my office (FE34, Level 8)</li> <li>Upload a softcopy of the Final report at WBLE and the link will be opened in Week 12 or earlier</li> <li>Penalties will apply for late submission</li> </ul>
		Penaities will apply for late submission

### Part B - Deliverables

- (B1). Draw a use case diagram for the chosen system or application, according to the finalised requirements.
- (B2). Create a use case description for each major use case listed in item (B1), using a template that you can download from WBLE.
- (B3). Draw activity diagrams for the major processes (with swimlanes).

## Part C - Deliverables

- (C1). Draw a context diagram and a Level-0 Data Flow Diagram (DFD).
- (C2). Decompose the Level-0 DFD into Level-1 DFD for major processes (at least two Level-1 DFDs).
- (C3). Decompose Level-1 DFD into Level-2 DFD (at least one Level-2 DFD).

Ensure all the diagrams are balanced and consistent.

Note: You must use <u>Enterprise Architect 12</u> to draw the diagrams stated in B1, B3 and all deliverables in Part C.

### **Important notes: -**

### **Submission of Final Report**

- **❖ Hardcopy** format: font size 12pt, Times New Roman, single line spacing; attach a cover page with students' details; only staple the report.
- ❖ **Softcopy** A link will be created at WBLE for your softcopy submission. Before uploading the report, please make sure that the filename is created according to the team leader's name, e.g. *[FirstName][LastName].docx*. You should also upload the softcopy of the analysis models (in .ea format).

### **Plagiarism**

Plagiarism is seen as a serious cheating issue. Do not do it. Students who plagiarise will be given a **ZERO** in their assignment.

#### **Penalties for Late Submission**

The full allocated mark will be reduced by 10 percentage points after the deadline for the submission of coursework. *Example: A report is assessed as deserving a mark of 65%, but submitted late after the deadline, the mark becomes 55%.*