# University of Wollongong

### School of Computing and Information Technology

## CSIT314 Software Development Methodologies

### Spring 2021

### Group Project (weighting 40%)

### Submission Date, last day of week 11 (Saturday)

**TASKS**

Your tasks are to:

1. Complete the development of a given software system provide in the project description. Your work needs to cover **all software development activities** from requirements elicitation and specification, design to prototyping and testing.
2. Your report needs to clearly describe how to apply the methodologies discussed in the subject that leads to successful the software production.
3. Able to apply any project development, management tools (e.g., GitLab, gitHub, Taiga, and use projectLibert for planning etc.,) in this project will be definitely an advantage to indicate your knowledge.
4. **NOTE: your group needs to well define the scale of this project to meet the submission date. NO postpone will be allowed in general**

**SUBMISSION**

1. A report that provides the detail of the software developments, including planning, methodology, design (UML) software testing outcome etc…
2. A prototype of this software project (include source code, accessing links if any) to show the major functions you proposed with a **recording of prototype demonstration**. (Provide the access link on the report cover page)
3. **NOTE: use web-page application, codes builder, such as Wix, WordPress while will get zero mark in prototype part. You need to develop the simple prototype by your group. There is not particular restriction on program language for this project, however you are required to learn the used program language by yourself.**

## SUGGEST REPORT CONTENTS

1. The **final report** should cover at least the following:
    - Finalized requirements specification
    - A complete and detailed design including UML essential diagrams, such as **use cases, sequence diagrams, class diagrams, state diagrams, and other UML components as far as appropriate.**
    - Test plans, test cases, and test data that is sufficiently large enough to simulate the scale of the developed system.
    - **Enough evidence to demonstrate that your group has followed a methodology and has used a project management tool (which supports the methodology) from the beginning to the end of the project.**
    - **True** group meeting records: copies of agenda, meeting minutes, action plans/items, etc.
    - Member contribution for the whole project (with each member's signature)
        - In the cover page of your report, you need to indicate the contribution of each team member, and everyone in the team should sign the cover page. The individual contribution of each team member is assessed by all the other members (**the scale is: "contributed", "very little", and "almost no contribution"**). For a team member who has "contributed", he/she will receive 100% of the group mark; for a team member who contributed "very little", he/she will receive 50% of the team mark; for students who made "almost no contribution", he/she will receive 0 marks for the entire group project.

## SUGGESTED WORKING PLAN

- Week 1: finalize group and start working on the project
- Week 2 - 3: elicit and clarify requirements. Produce the first complete version of the requirements.
- Week 4 submit the proposal
- Week 5 – Week 8: enhance by iterative your works iteration:
    - Design, implement, and functionalities testing.
    - Continue eliciting and clarifying further requirements.
- Week 9 11 – Finalize the prototype, demo recording, and report writing.
- End of week 11 – submit the group project.

# Project Description

**Important Notes:**

- **This Project Description provides only the high-level goals of this project. The development team MUST elicit more detailed and specific requirements as well as get feedback from study of related model on the Internet. It is that your project is to simulate a real-life project.**
- You need to form a group up to five members before week 2. It is recommended you follow the group formation of the FYP subject.

**Project Context Statement**

Online business has attracted increasing popularity in recent years. Some platforms such as Uber (https://www.uber.com) and Airbnb (https://www.airbnb.com.au/) are being used by millions of people around the world. In despite of it, there are many B-B; B-C; and C-C platform has been developed.

In this project, you are asked to develop a software for providing ONE of this kind of online system. It could be a share economic platform (e.g., cleaning or painting a house, mowing a lawn, plumbing services, etc.), or any other online business provide selling, buying services, to target users.

However, your system suggestively needs to include following key aspects

- Users Management, include types of users, user profiles, and their business ratings (e.g. VIP.)
- a wide range of services (e.g. login, user management, promotions, business analysis etc….)
- Enable consumers to quickly connect and select relevant service.
- Manage/logs transactions between system and consumer.
- Other additional defined functions with suitable explanation.

You need to create test data set that is sufficiently large enough to simulate the system. You may use program script to randomly generate these data.

It is important that your submission, e.g., report has to focus on software design and methodology. Do not just conduct your work like a programming project, while only show the codes and program running outcomes, while ignore essential discussions on ‘requirement analysis’, ‘software design (UML features), and most importantly what ‘software method’ that your group apply to development (e.g., Scrum, spiral, prototyping etc….). Once it is defined, your development process needs to show how it is applied.

**Marking scheme**

| *Component* | *Out of* | *Marks* | *Comments* |
|---|---|---|---|
| | | | |
| **Final Project Presentation/Demo**<br>(a recording to explain the prototype) | *4* | | |
| **Final Deliverables**<br><br>Overall quality of the Final Deliverables (whole project context)<br><br>Project management (e.g., evidence of the use of a methodology and tool support, true meeting records, weekly progress as observed in the labs, etc.)<br><br>Requirement analysis and specification<br><br>Design (system architecture, a set of UML design diagrams to show your design etc…)<br><br>Coding (quality of code, functionalities implemented, sophistication of the solutions, consistency with design, etc.)<br><br>Testing (test plans, test cases and test data) | *7*<br><br>*5*<br><br>*4*<br><br>*10*<br><br>*5*<br><br>*5* | | |
| **Total** | ***40*** | | |

Overall Comments: