BIT302 - Assignment 1

Release date:	**Week 1**
Due date:	**Week 5**
Output:	Project Plan/ Proposal
	Requirement Specification
Value:	20%
Late Penalty:	5 marks per working day

LEARNING OUTCOMES
- CLO1: apply software engineering principles and tools available to the software developer, such as software process methodologies, choice of algorithm, language, software libraries and user interface technique for developing a prototype
- CLO3: perform planning and project management tasks for a prototype
- CLO4: communicate orally in groups and in writing technical documentation throughout the various stages of project development

CASE STUDY: MicroHousing System (MHS) in Kuala Lumpur

Big cities are always expensive to live in, but even more so for young people who have to live independently, whether they are college students, fresh graduates or job seekers.

Proposals to alleviate the housing crisis in major cities have been proposed in the United States (https://ssir.org/articles/entry/a_new_approach_to_solving_the_us_housing_crisis#), Canada (https://www.theglobeandmail.com/canada/article-seniors-have-too-much-house-millennials-have-none-and-a-business/), Hong Kong (https://www.scmp.com/lifestyle/article/2142632/six-ways-solve-hong-kong-housing-problem-water-pipes-plastic-bottles).

Youths in Kuala Lumpur also face similar problems. Therefore, the Kuala Lumpur City Hall (DBKL) has proposed a scheme to help youths to rent accommodation at affordable prices (https://www.nst.com.my/news/nation/2019/04/480032/b40-youths-can-soon-rent-dbkl-micro-homes-rm100-month).

General Requirements:
Students are required to work in a team of **TWO** (**2**) **only** to create the information system for the MHS (Micro Housing System) for DBKL.

Choose your team members **WISELY** as you will be working with you team member throughout the semester for all the **THREE** assignments.

NOTE: The mark allocation for collaboration (in Assignment 2 and 3) will be awarded ZERO if the project does not reflect teamwork.

There are **TWO (2)** tasks in this first assignment.

The first task of the first assignment has been designed to give students the opportunity to understand and develop an appropriate project plan/proposal in a software development environment.

The second task is to create the requirements definition and specification document.

TASK 1: Writing the project proposal/project plan

a. Decide on the TITLE of your project for the case study. *The name of your project will be reflected in the Trello board and the GitHub repository that will be created by your team.*

b. Develop a project plan for the project that you have chosen. The plan should include :

1) Cover Page :
   Title of Project
   Team Members : Team Leader + Member+ Contact Details
2) Table of Contents
3) Content :
   Introduction
   Project Background
   Project Aims
   Project Objectives
   Project Scope
   Project Schedule (applying project management tools i.e. Trello)
   - Applying Prototyping Methodology prepare the
     - Work breakdown Structure
     - Milestones/Deliverable
     - Gantt Chart

   Note : You are required to use Trello to show the progress of the tasks over the time period of the course

Technical description of the proposed system;
- Development Platform
- Demonstration Platform

Risk management plan;

TASK 2: Writing the Requirements Definition and Specification Document

This part of the assignment was designed to give the students the opportunity to understand and develop the requirements for the case study.
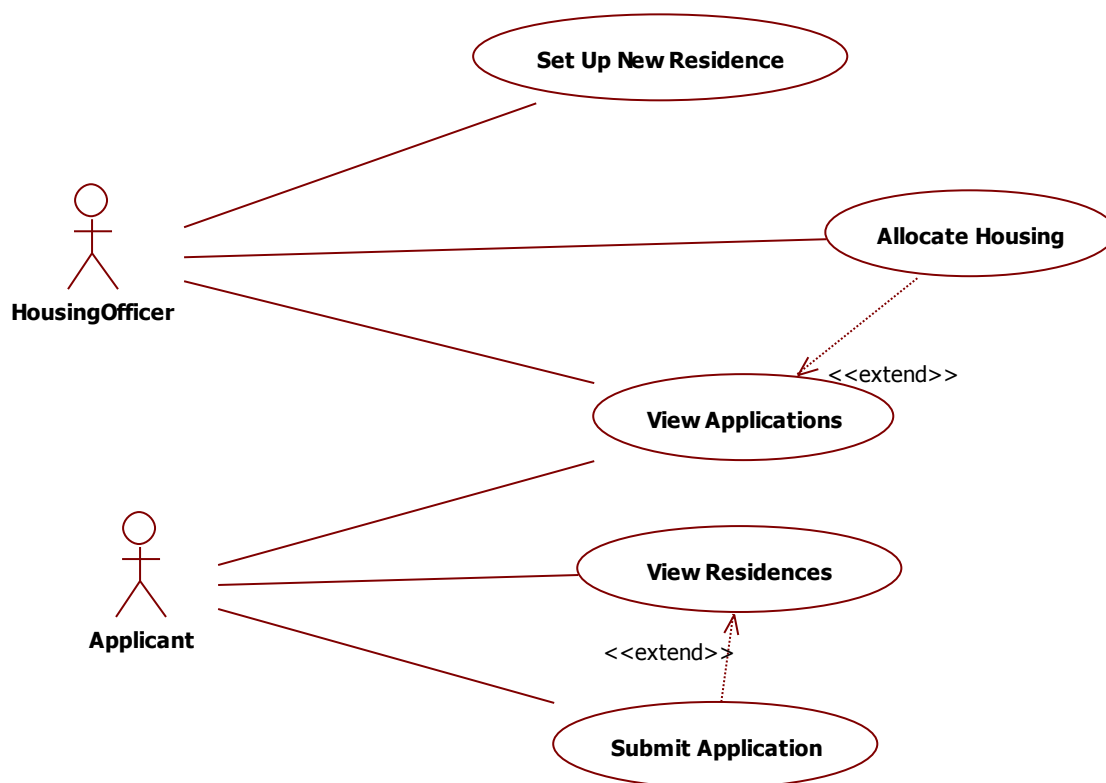
The use case diagram is shown in Fig. 1.

Figure 1: MHS Use Case Diagram

The class diagram (Figure 2) shows the main information requirements for the system.
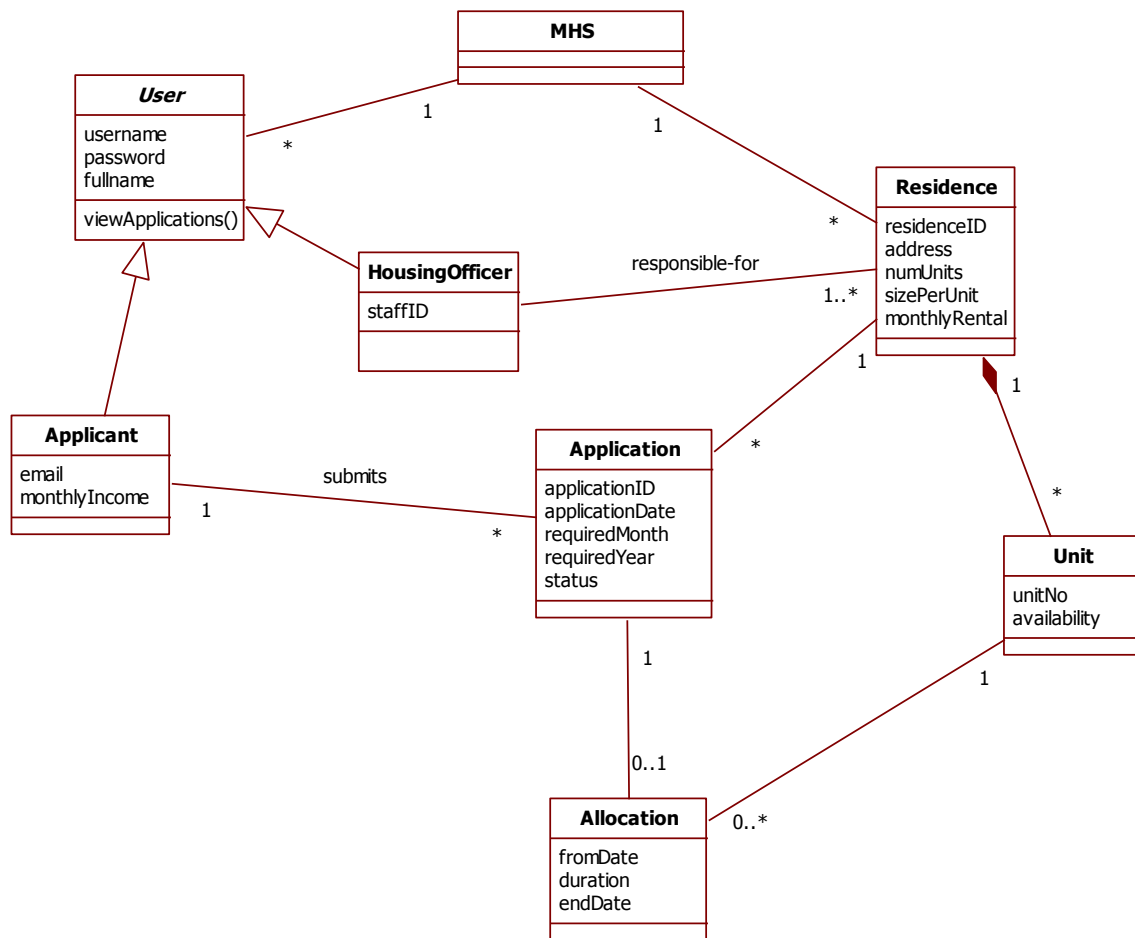

Figure 2: MHS Class Diagram

Based on Fig 1. and Fig. 2 and the file *MicoHousingSystem Use Cases,* write the requirements definition and Specification Document. You should have the following in your report.

1) Cover Page:
   Title of Project
   Team Members: Team Leader + Member+ Contact Details
2) Table of Contents
3) Content
   - Functional and Non-functional requirements
   - Modeling the requirements
     i. Use case diagram
     ii. Expanded Use Cases
     iii. Analysis Class Diagram
     iv. System Sequence Diagrams + Contracts (individual work)

- Decide which parts of the required behaviour will be implemented in your software project and by which member.

Note : Ensure that your changes/amendments are reflected (if any are made) in the documentation

General Marking criteria and Submission Requirements

- All documentation must be word processed using Times New Roman font size 12 with 1.5 spacing.

- Use APA Referencing.

- Your report should consist of the following:
  1. Submit your Turnitin Report (http://www.turnitin.com)
     - Class Name :**STIKOM BIT302 2020**
     - Class ID : **23613881**
     - Enrollment Key : **SE2020**
  2. Assignment Cover Page
  3. Project Plan + Requirement Specification Documents
  4. Bibliography
  5. Marking Scheme