BIT302- Assignment 1

Release date: 1 February 2021

Due date: 5 March 2021 by 11.59pm

Output: Project Plan/ Proposal
Requirement Specification

Value: 20%

Late Penalty: 5 marks per working day

LEARNING OUTCOMES

- CLO1: develop a prototype by applying software engineering principles and tools available to the software developer (C6, PLO3, MQF3a)
- CLO2: apply techniques to manage software project timelines (C5, PLO1, MQF1)
- CLO3: demonstrate effective communication skills to make design and development decisions through written and oral demonstration (C3, PLO5, MQF3c)

CASE STUDY: **Covid Testing Information System (CTIS)**
There are many Covid-19 test centres that have been set up to manage Covid-19 testing. A Covid Testing Information System (CTIS) is required that will allow the health ministry to keep track of tests that have been performed by the various test centres.

Patients that require testing may be of five types: “returnee”, “quarantined”, “close contact”, “infected”, “suspected”. Testers at the medical centre will record when the test is administered and the results that are obtained. Patients can log in to the system to check on their results. Testers/Officers can also generate reports of the tests that they have performed.

General Requirements:

Students are required to work in a team of **TWO (2) only** to create the application: Covid Testing Information System

Choose your team members **WISELY** as you will be working with your 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

Software project plan defines the technical and managerial processes necessary to satisfy the project requirements. Based on the file *CTIS Use Cases*, write the project plan with the following details:

a. **Decide** on the TITLE of your project for the case study. *The name of your project will be reflected in the 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:
Cover Page consisting of the following:
- Title of Project
- Team Members: Team Leader + Member+ Contact Details

Table of Contents

The content of the proposal plan will include the following:

1. Overview
   This section describes a management summary.
   - *What is the motivation for this project?*
   - *Who the customer/user is/are?*
   - *What the project will deliver. Is it a new product or an extension of an existing one?*
   - *What it will cost?*
   - *How long it will take?*

2. Project Aims
   Aims are statements of intent. They are usually written in broad terms. They set out what you hope to achieve at the end of the project

3. Project Objectives
   Objectives are specific statements that define measurable outcomes
4. Project Scope
   Clarify what the project will (and will not) deliver, in order to avoid future shifts in the level of ambition.
5. Project Schedule (applying project management tools i.e. GanttProject)
   Applying Prototyping Methodology prepare the
   - Work breakdown Structure - *deliverable-oriented hierarchical decomposition of the* work *to be executed by the project team to accomplish the project objectives and create the required deliverables*
   - Milestones/Deliverable - *Estimate the effort for the project activities and plan the activity sequencing.*
   - Gantt Chart (use GanttProject) *-Create a baseline with expected start/end dates and deliverables. Create the resource allocation with the assigned tasks.*
6. Technical description of the proposed system - *Define methods, tools, languages, etc. to be employed for design, implementation, test, and documentation.*
   - Development Platform
   - Demonstration Platform
7. Risk management plan - *the risks are listed, assessed, and mitigation and contingency is defined.*

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.

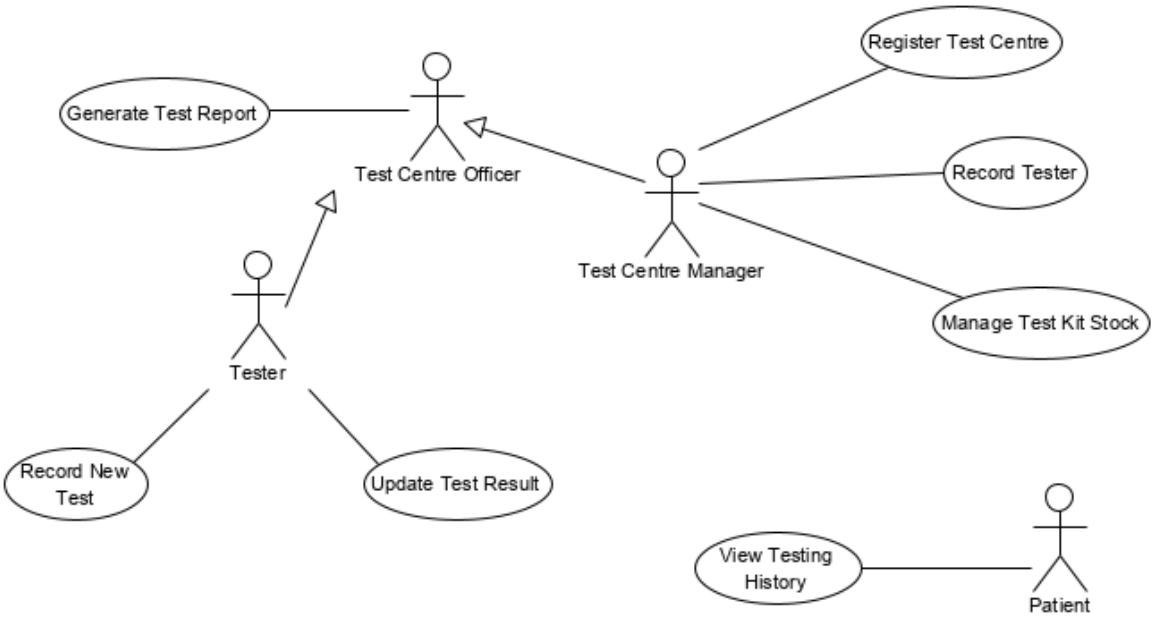

Figure 1: CTIS Use Case Diagram

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

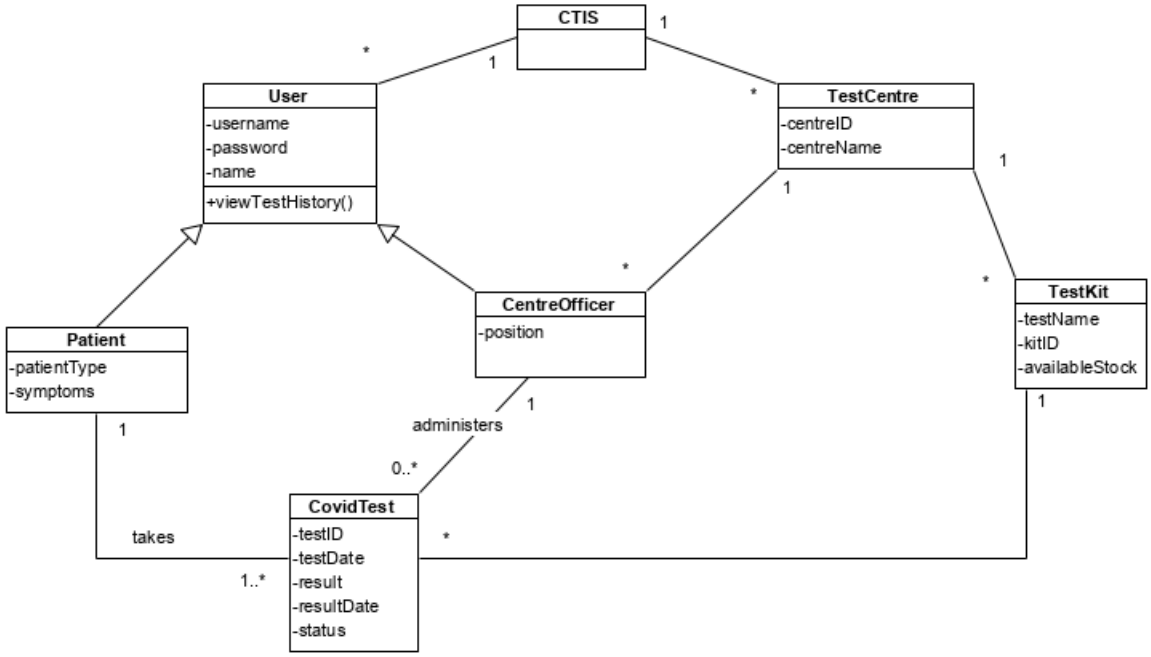

Figure 2: CTIS Class Diagram

Based on Fig 1. and Fig. 2 and the file *CTIS 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. Analysis Class Diagram
     iii. Expanded Use Cases +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) (without the Assignment Cover Sheet and Bibliography)
     - Class Name: **STIKOM BIT302 2021**
     - Class ID: **28005515**
     - Enrollment Key: **SESTIKOM**
  2. Assignment Cover Page
  3. Project Plan + Requirement Specification Documents
  4. Bibliography
- A Final Compiled report to be submitted to LMS.