

## Appendix A : Covid Testing Information System

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 to 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”, or “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.

You are required to develop a website to achieve the use cases stated below. You are required to plan your development of your website based on the timelines of your assignment 1 (Due on 28 September 2020) and assignment 2 (Due on 2 November 2020).

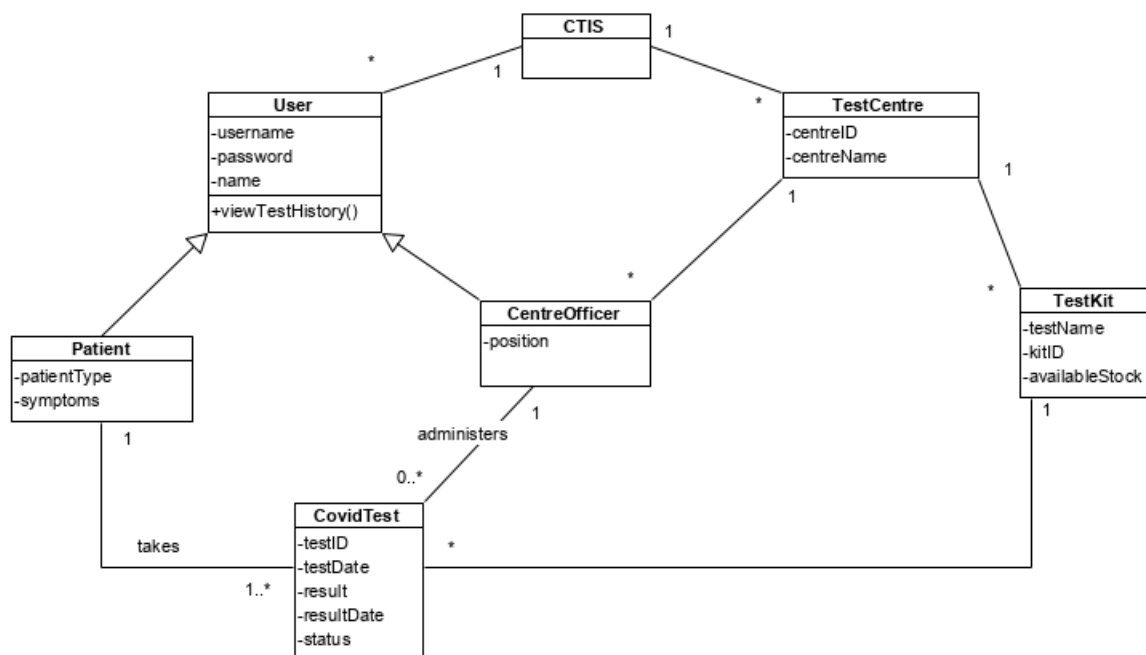
Your deliverables for assignment 1:

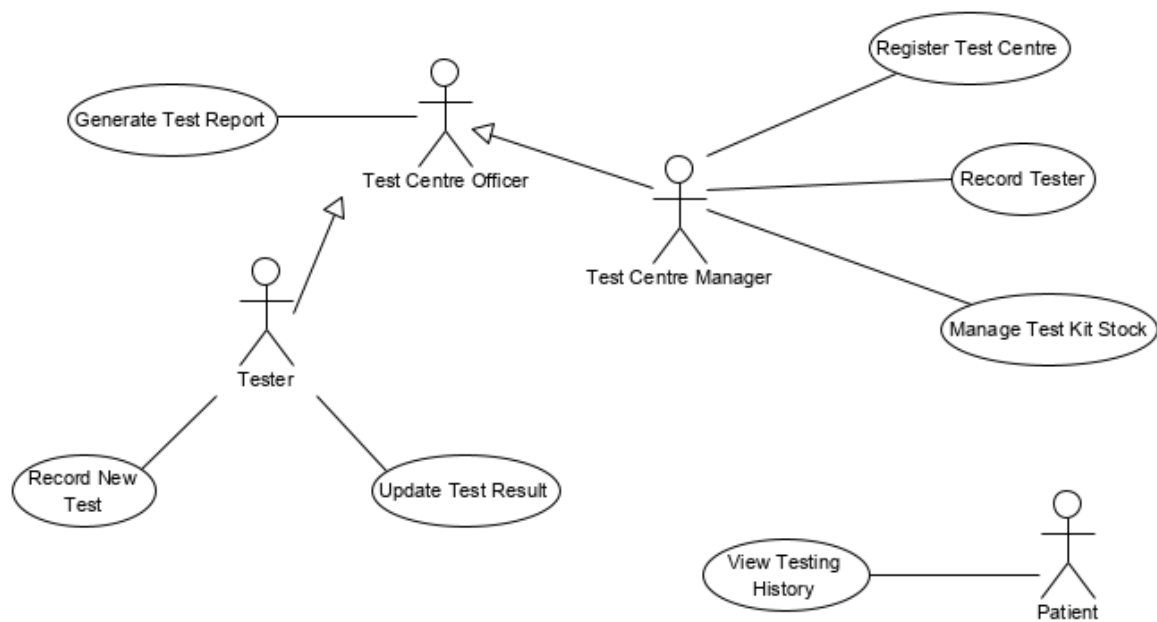
- Project Plan
- Requirements Definition and Specification Document
- Design & Test Document
- Prototype 1

Your deliverables for assignment 2:

- Design & Test Document
- Prototype 2

A class diagram is given in Fig.1.





The use cases are given briefly below:

Use Case Name	Register Test Centre
Actor	Test Centre Manager
Description	This use case begins when a Test Centre has been approved and the test centre manager's account has been set up as a centre officer. The test centre manager logs in to register the centre's name. The centreID is generated. The test centre is created and recorded for the centre manager.

Use Case Name	Record Tester
Actor	Test Centre Manager
Description	This use case begins when the test centre manager wants to record a new test centre officer with the position 'tester'. The test centre manager records the username, password and name of the officer. The position of the new centre officer is set as "Tester".

Use Case Name	Manage Test Kit Stock
Actor	Test Centre Manager
Description	This use case begins when the test centre manager receives new stock of test kits. The centre manager logs in and is able to manage the stock of test kits for the centre. If it is a new test kit, the test kit name and stock is recorded, and a kitID is generated. If there is existing stock for a given kitID, the stock is updated.

Use Case Name	Record New Test
Actor	Tester

Description	This use case begins when a tester wants to record that a patient has taken a test. If the patient has not taken a test before, the tester records the username, password, name, patient type (“returnee”, “quarantined”, “close contact”, “infected”, or “suspected”) and symptoms. If the patient has taken a test before, the tester updates the patient type and symptoms only. The date of the test and the testID is generated. The status of the test is “pending”.
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Use Case Name	Update Test Result
Actor	Tester
Description	This use case begins when a tester wants to update the results of a test. The tester logs in and enters the testID to retrieve the test details. The tester enters the results and the result date is recorded. The status of the test is set to “complete”.

Use Case Name	View Testing History
Actor	Patient
Description	This use case begins when a patient wants to view the results of tests. The patient logs in with the username and password and the history of tests that have been taken is shown.

Use Case Name	Generate Test Report
Actor	Test Centre Officer
Description	This use case begins when a test centre officer wants to view a test report. The officer logs in with a username and password. The test history of all tests that have been administered at the centre that the officer is employed at are shown.