

COMP1035 Coursework Specification Sheet

UNNC Clinic Management System (CMS)

❖ Project Description

The UNNC decides to develop software for managing its clinic operations. The system offers services to university patients for book their appointments before coming to the clinic. The expected number of users is around 30,000 persons, this number includes students, employees, and their dependents. Nurses and doctors can also have access to the system in order to view patients' appointments, record patients' data, write prescriptions, and make referrals to external hospitals. All users' information shall be stored in a separated database on the cloud.

The University chose your team to develop a *phone App* for this system called *UNNC-CMS*. After consultation with your development team, the team estimated a development plan. The estimated time to develop the whole system is four months.

The system shall allow patients to book their appointments by logging in to the system using a unique Username (University-ID) and a Password. Once a patient login to the system, he/she must fill a form that has the appointment's date (YY/MM/DD), time (HH:MM), patient's first name, last name, status (i.e., student, employee, or dependent), and the reason of the appointment. The patient receives a confirmation message after submitting the appointment form. The

patient can also modify or cancel an appointment as long as the date and time of the appointment are not passed.

A nurse must log in to the system in order to view patients' appointments. She can search for all appointments in a specific date by entering a 6-digit date in the form of YY/MM/DD, for instance, March 7th, 2019 can be entered as 19/03/07. Also, she can search the system for a specific patient by entering his/her username. The system must allow the nurse to add basic patient information about the patient such as attendance (present or absent), or patient's measurements (temperature, weight, and blood pressure) the measurements can have integer or real values. The system must allow the nurse to generate reports such as a patient's prescription or hospital referrals.

Doctors can log in to the system to search and view the patient's information, add more information about a patient case, write a prescription, and write hospital referrals.

❖ **Part1- Submission date April 15th, 2019 11:00 PM (25%)**

This part will cover the major Requirements Engineering activities. You are required to submit a Software Requirements Specification Document (SRS) which includes the followings:

- 1- Introduction (3 paragraphs) about the project which includes a brief description about what you are going to do, objectives of the project, which software process model your team will use and rationale for using this model, and the role of each team member.
- 2- Identify all actors and use cases (actions), you should also classify actors as (personas). Put all your results in a table like this

Personas	Actor	Usecase
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- 3- Draw the Usecase diagram for this scenario showing including any ***extend*** or ***include*** relationships.
- 4- Identify the user requirements
- 5- Identify the system requirements (System Specification)
- 6- Based on the Usecase diagram, User requirements, and the systems requirements, extract all the methods needed for this system showing their inputs, outputs or any passing parameters and their types. For instance, a method that output a message to the user can return an output of a type string. As shown in this table

Method name	Input	Type	output	Type
F1()	x	Integer	myMessage	String
	Y	String		

- 7- Draw the class diagram for this scenario showing all classes and their attributes, and methods. Also show all associations, cardinalities, generalizations (inheritance) that might exist among classes.

❖ **Par2- Test Plan and Project Management (20%)**

Will be posted at a later date.

❖ **Student's Peer Evaluation (5%)**

Must be submitted by each individual separately on April 30th, 2019.