

National University of Computer and Emerging Sciences, Lahore Campus



Course:
Program:
Duration:
Quiz Date:
Section:

Software Engineering
BS (Computer Science)
45 Minutes
1-April-24
6C

Course Code: CS-3009
Semester: Spring 2024
Total Marks: 25
Roll No.
Name:

Question 1 (Marks = 15)

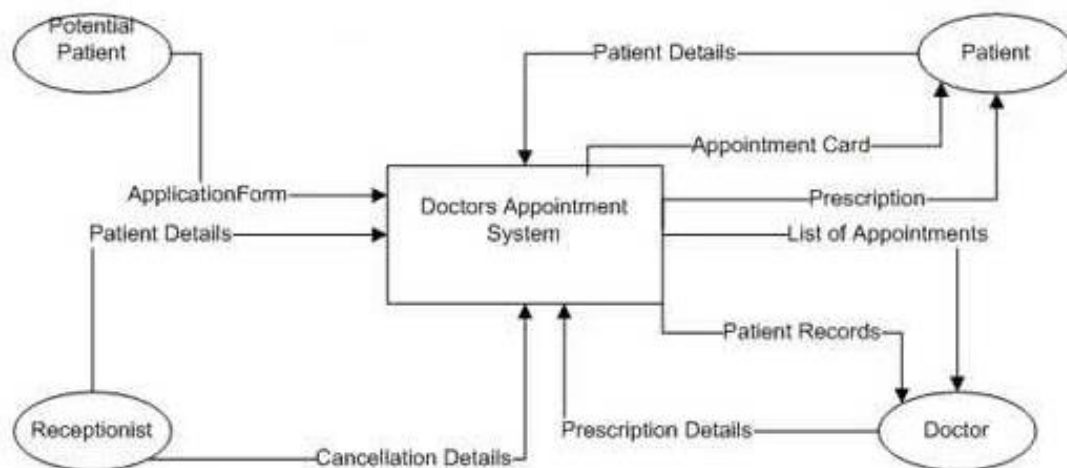
A potential patient joins the doctors by submitting a patient application form. A new patient record is created and stored in the patient records store.

A patient makes an appointment by providing their patient details. An appointment card is given to the patient after they have made the appointment. The appointment details are stored in the database.

A receptionist makes a telephone appointment for a patient by entering a patient's details. A receptionist also cancels appointments for a patient by entering their cancellation details. Both processes update the appointments section of the database.

A doctor will see a patient. When they see a patient a list of appointments and patient's records will be sent to the doctor. A doctor may want to issue a prescription by entering prescription details into the system and a prescription be issued to the patient.

The context diagram of this system is provided. Refine it to level 1 DFD using the given scenario.



Question 2 (Marks = 10)

Label each of the following requirements as Functional (F) or Non-functional (NF) in appropriate cell against each requirement.

Requirements	F / NF
1. The system shall show the users their existing bookings.	F
2. The system shall be available at all times, with as little downtime as possible for maintenance or updates.	NF
3. The system shall be able to manage 1000 requests at a time.	NF
4. The system shall display available flights, together with information such as departure and arrival timings, layover duration, and ticket price.	F
5. The systems shall provide flight status updates, including delays and cancellations.	F
6. The system shall protect sensitive client data and maintain the security of all transactions.	NF
7. The system shall provide a booking confirmation with a reservation number and itinerary within an hour of booking.	NF
8. Each request to the system shall be processed within 5 seconds.	NF
9. The system shall backup the data every few days.	NF
10. The system shall allow the managers to modify reservation rules.	F