National University of Computer & Emerging Sciences, Karachi
School of Computing
Spring - 2022

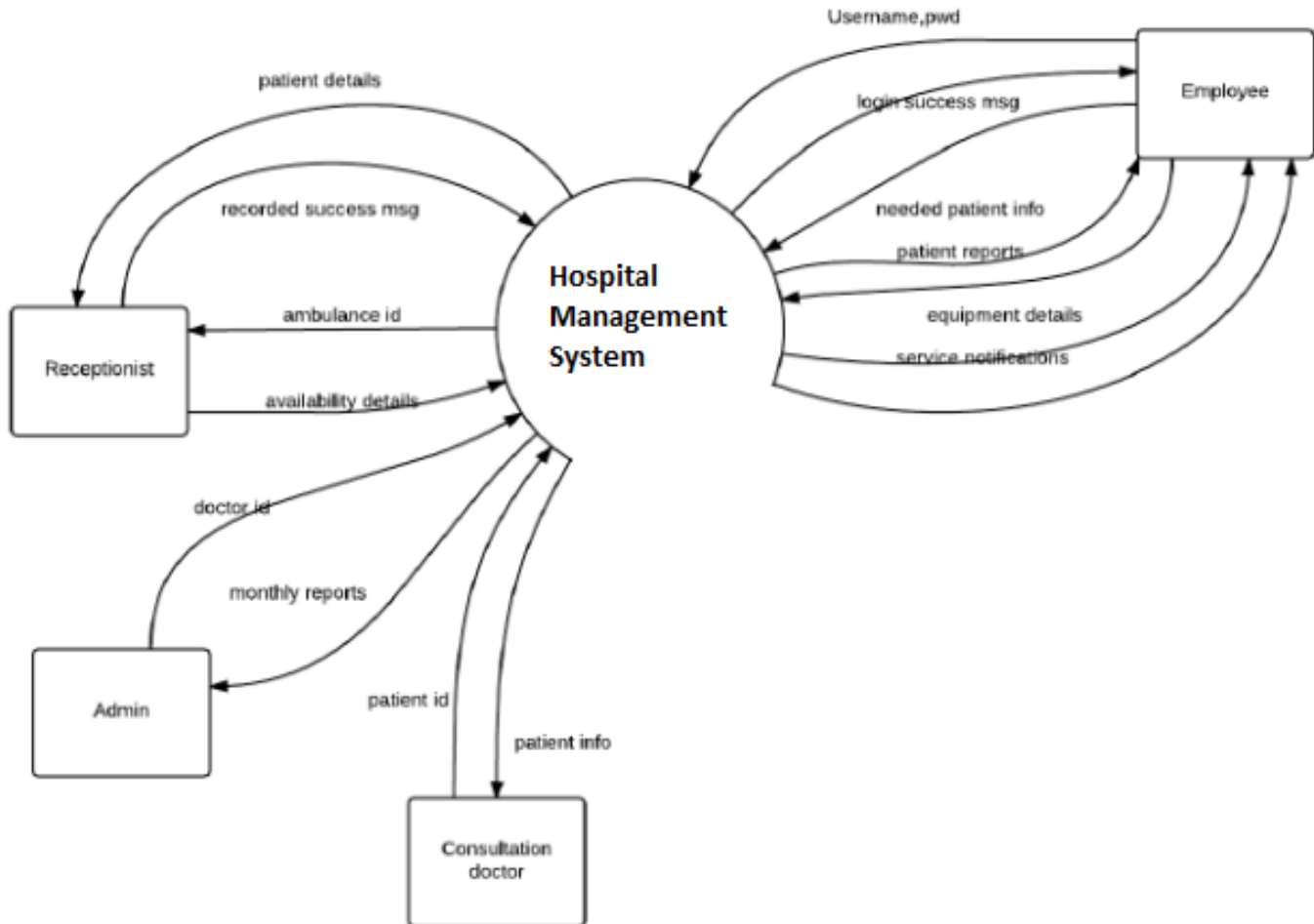# CS1004 – Object Oriented Programming

Assignment # 2

Max Points: 100   **Due Date:** Saturday, April 30, 2022, 11:55 p.m.

Carefully read the following instructions!

- It should be clear that your assignment would not get any credit if the assignment is submitted after the due date.
- Strict actions will be taken if the submitted solution is copied from any other student.
- For any query, feel free to email at: **basit.jasani@nu.edu.pk**

- If you find any confusion in the assignment (Question statement), please consult at least two days before the deadline. After that, no queries will be entertained in this regard.
- **Submission:** Submission will only be accepted through GOOGLE CLASSROOM. Submit all your codes in a single folder name it as your Student ID "KXX-XXXX". Keep all the files inside that folder with proper commenting of the code.

Consider the functional requirements of a hospital management system. You must give implementations for each of these requirements. For reference, the basic flow of such a system is shown in the following diagram:

Functional Requirements:

Registration

1- Add patients

This function will allow front-desk staff to add new patients to the system.

2- Add doctors

This function will allow front-desk staff to add new doctors to the system.

3- Add staff

This function will allow the admin/owner to add new staff to the system.

4- Assign ID to patient

This function will allow front-desk staff to give each patient a ID and add it to the patient's record. The patient throughout his /her stay in hospital shall use this ID.

5- Assign Username and Password to doctor

This function will allow front-desk staff to assign a unique username and password to doctor. The doctor throughout his /her job in hospital will use this username and password.

Check In and Check Out

1- Assign Doctor to a Patient

This function will allow front-desk staff to assign a relevant doctor to every new patient.

2- Delete Patient ID

The administrative staff in the ward must be allowed to delete the ID of the patient from the system when the patient checks out.

3- Add to beds-available list

The administrative staff in the ward must be allowed to put the beds just evacuated in beds-available list.

Report Generation

1- Patient information

This function will generate reports on patients about the following information: patient's ID, patient's name, ward name, bed number and the doctor's name, which was assigned.

2- Bed Availability

The system will generate reports on bed availability about the following information: ward name, bed number, occupied/unoccupied.

XXXXX Happy Coding XXXXX