

## Professional Certificate in Medical Data System (Course Number-4889008)

**Objective-** To effectively manage data system in medical records

**Pre-requisite-** MBBS/ BDS/ B Pharm

**Contents** ICT409 Hospital Data System

- Hospital Data System (Reader)
- Database Management System for Hospital (Reader)

**Videos**

- Hospital Database Analysis Design
- Hospital Management System Data Entry
- Hospital website and appointment system
- Hospital Management System Doctor Log in
- Hospital Management System with PHP
- Hospital Management System in PHP

## Part 1 - Practical Application Tutorials- Hospital Data System

**Award- Professional Certificate in Medical Data System**

**An introduction about hospital Database**

*SQL [39 exercises with solution]*

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*[An editor is available at the bottom of the page to write and execute the scripts.]*

**Sample Database: hospital**

**1.** Write a query in SQL to find all the information of the nurses who are yet to be registered.

- 2.** Write a query in SQL to find the name of the nurse who are the head of their department.
- 3.** Write a query in SQL to obtain the name of the physicians who are the head of each department.
- 4.** Write a query in SQL to count the number of patients who taken appointment with at least one physician
- 5.** Write a query in SQL to find the floor and block where the room number 212 belongs to
- 6.** Write a query in SQL to count the number available rooms
- 7.** Write a query in SQL to count the number of unavailable rooms.
- 8.** Write a query in SQL to obtain the name of the physician and the departments they are affiliated with
- 9.** Write a query in SQL to obtain the name of the physicians who are trained for a special treatment
- 10.** Write a query in SQL to obtain the name of the physicians with department who are yet to be affiliated
- 11.** Write a query in SQL to obtain the name of the physicians who are not a specialized physician
- 12.** Write a query in SQL to obtain the name of the patients with their physicians by whom they got their preliminary treatment
- 13.** Write a query in SQL to find the name of the patients and the number of physicians they have taken appointment
- 14.** Write a query in SQL to count number of unique patients who got an appointment for examination room C
- 15.** Write a query in SQL to find the name of the patients and the number of the room where they have to go for their treatment
- 16.** Write a query in SQL to find the name of the nurses and the room scheduled, where they will assist the physicians.

- 17.** Write a query in SQL to find the name of the patients who taken the appointment on the 25th of April at 10 am, and also display their physician, assisting nurses and room no.
- 18.** Write a query in SQL to find the name of patients and their physicians who does not require any assistance of a nurse
- 19.** Write a query in SQL to find the name of the patients, their treating physicians and medication.
- 20.** Write a query in SQL to find the name of the patients who taken an advanced appointment, and also display their physicians and medication
- 21.** Write a query in SQL to find the name and medication for those patients who did not take any appointment
- 22.** Write a query in SQL to count the number of available rooms in each block
- 23.** Write a query in SQL to count the number of available rooms in each floor
- 24.** Write a query in SQL to count the number of available rooms for each block in each floor.
- 25.** Write a query in SQL to count the number of unavailable rooms for each block in each floor.
- 28.** Write a query in SQL to obtain the name of the patients, their block, floor, and room number where they are admitted.
- 29.** Write a query in SQL to obtain the nurses and the block where they are booked for attending the patients on call.
- 30.** Write a query in SQL to make a report which will show -
  - a) name of the patient,
  - b) name of the physician who is treating him or her,
  - c) name of the nurse who is attending him or her,
  - d) which treatment is going on to the patient,
  - e) the date of release,
  - f) in which room the patient has admitted and which floor and block the room belongs to respectively.

- 31.** Write a SQL query to obtain the names of all the physicians performed a medical procedure but they are not certified to perform
- 32.** Write a query in SQL to obtain the names of all the physicians, their procedure, date when the procedure was carried out and name of the patient on which procedure have been carried out but those physicians are not certified for that procedure.
- 33.** Write a query in SQL to obtain the name and position of all physicians who completed a medical procedure with certification after the date of expiration of their certificate
- 34.** Write a query in SQL to obtain the name of all those physicians who completed a medical procedure with certification after the date of expiration of their certificate, their position, procedure they have done, date of procedure, name of the patient on which the procedure had been applied and the date when the certification expired
- 35.** Write a query in SQL to obtain the names of all the nurses who have ever been on call for room 122.
- 36.** Write a query in SQL to Obtain the names of all patients who has been prescribed some medication by his/her physician who has carried out primary care and the name of that physician
- 37.** Write a query in SQL to obtain the names of all patients who has been undergone a procedure costing more than \$5,000 and the name of that physician who has carried out primary care
- 38.** Write a query in SQL to Obtain the names of all patients who had at least two appointment where the nurse who prepped the appointment was a registered nurse and the physician who has carried out primary care
- 39.** Write a query in SQL to Obtain the names of all patients whose primary care is taken by a physician who is not the head of any department and name of that physician along with their primary care physician

**Part (2) – My SQL General Studies (ICT410)**

**Award- Professional Certificate in Information Technology (MYSQL)**

**Lesson Videos**

Introduction to My SQL

How to install My SQL in Windows 10

Full Course for beginner

Creating application by using MY SQL

My SQL Tutorial 1

My SQL Tutorials 2

My SQL Workbench Tutorial

Create Search System by using PHP

### Textbooks

MySQLNotesForProfessionals

My SQL Tutorial

Software

My SQL Installer Web Community

My SQL Installer Community

### Medical Data System

Part (3) – Graduate Certificate in Information Technology (Hospital Data System)  
(30 Credits)

- ICT409 Medical Data System (10 Credits)
- ICT410 MYSQL (10 Credits)
- ICT502 Data Base System (10 Credits)

### Application

- Access
- STATA