**Bahria University, Islamabad Campus**

Department of Computer Science

**Final Assessment**

Class/Section: BSCS-4A & B

**(Spring 2020 Semester)**

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| Course: Database Management  Systems LAB |  | Date/Time Assigned: **22-6-2020** |
| Course Code: CSL 220 |  | Submission Dat/Time: **23-6-2020** |
| Faculty’s Name: Sikandar Hayat |  | Max Mars:30 |
|  |  |  |

**INSTRUCTIONS:**

1. **Submit the Final- Term Assignment in Time**
2. **II. User proper referencing**
3. **III. Your Report should be formally formatted as per your assignments**
4. **iv. Submit report, outputs screenshots and code in a single .zip form on LMS.**
5. **V. Clearly show file paths to reflect originality of your work**

**Student Name: MIAN AFZAAL ZAHOOR Enrollment No. 01-134182-094**

**Question # 1 Design the solution for this case study (25 Marks)**

Coronavirus disease 2019 (COVID-19) is defined as an illness caused by a novel coronavirus now called severe acute respiratory syndrome-2. Most people who fall sick with COVID-19 will experience mild to moderate symptoms and recover without special treatment.

**Proposed Database Tables Description**

**1. Departments**

**QUERY**

create table Departments (

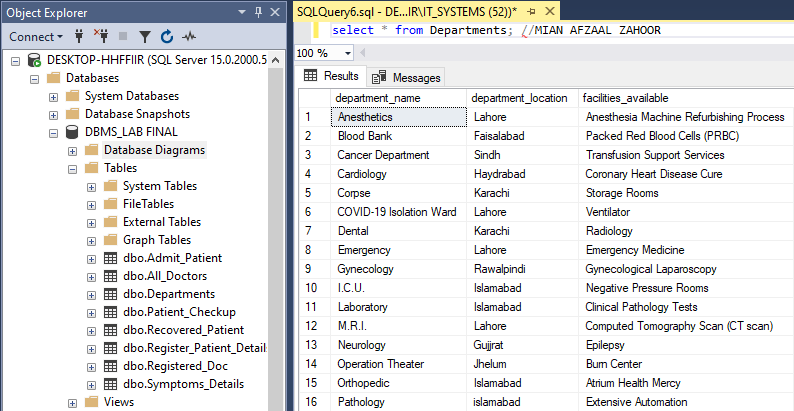
department\_name varchar(30) primary key not null,

department\_location varchar(30),

facilities\_available varchar(50)

);

**DATA IN Departments TABLE**



**2. Doctor Registration (All Doctors)**

**QUERY**

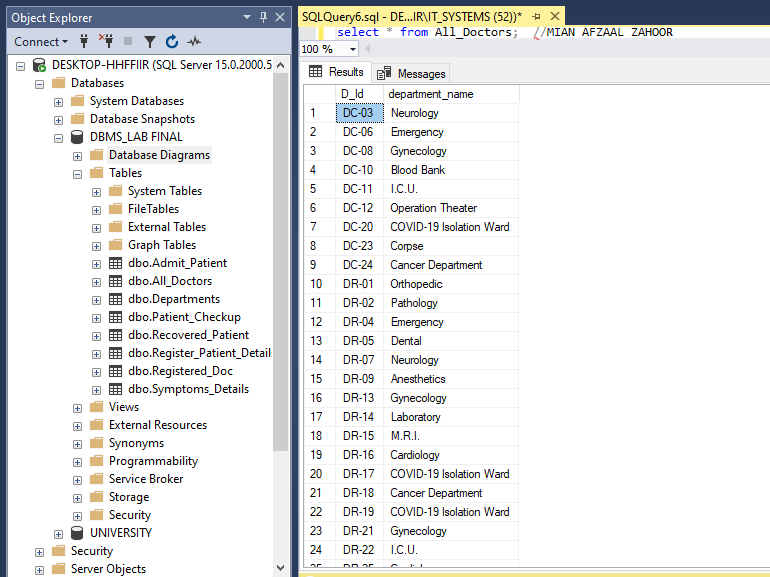
create table All\_Doctors (

D\_Id varchar(25) primary key not null,

department\_name varchar(30) foreign key (department\_name) references Departments (department\_name)

);

**DATA IN All\_Doctors TABLE**



**3. Doctor Registration (Registered Doc)**

**QUERY**

create table Registered\_Doc (

D\_Id varchar(25) foreign key (D\_Id) references All\_Doctors (D\_Id),

D\_Name varchar(30) primary key not null,

qualification varchar(30),

D\_Address varchar(50),

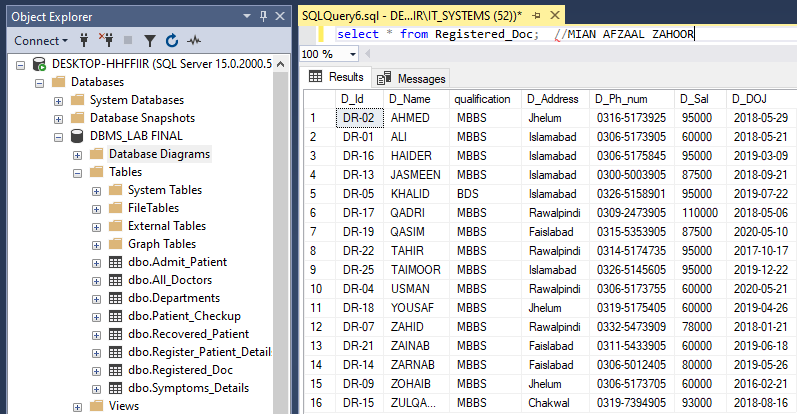
D\_Ph\_num varchar (15),

D\_Sal int,

D\_DOJ date

);

**DATA IN Registered\_Doc TABLE**



**4. Register Patient Details**

**QUERY**

create table Register\_Patient\_Details (

MR\_no varchar(50) primary key not null,

P\_First\_name varchar(30),

P\_Last\_name varchar(30),

P\_Father\_name varchar(30),

P\_Date\_Of\_Birth date,

P\_Place\_Of\_Birth varchar(30),

P\_Blood\_Group varchar(10),

P\_Present\_Address varchar(50),

P\_Permanent\_Address varchar(50),

P\_Destrict varchar(30),

P\_Tehsil varchar(30),

P\_State varchar(30),

P\_Cast varchar(30),

P\_Edu\_Details varchar(50),

P\_CNIC varchar(20),

P\_Prm\_Cnt\_Num varchar(20),

P\_Mbl\_Num varchar(20),

P\_Email varchar(30),

P\_City varchar(30),

P\_Gender varchar(10),

P\_Picture varbinary(max),

P\_Att\_Name varchar(30),

P\_Att\_Lst\_Name varchar(30),

P\_Att\_Fat\_Name varchar(30),

P\_Att\_Cnt\_Num varchar(20),

P\_Att\_Blood\_Group varchar(10),

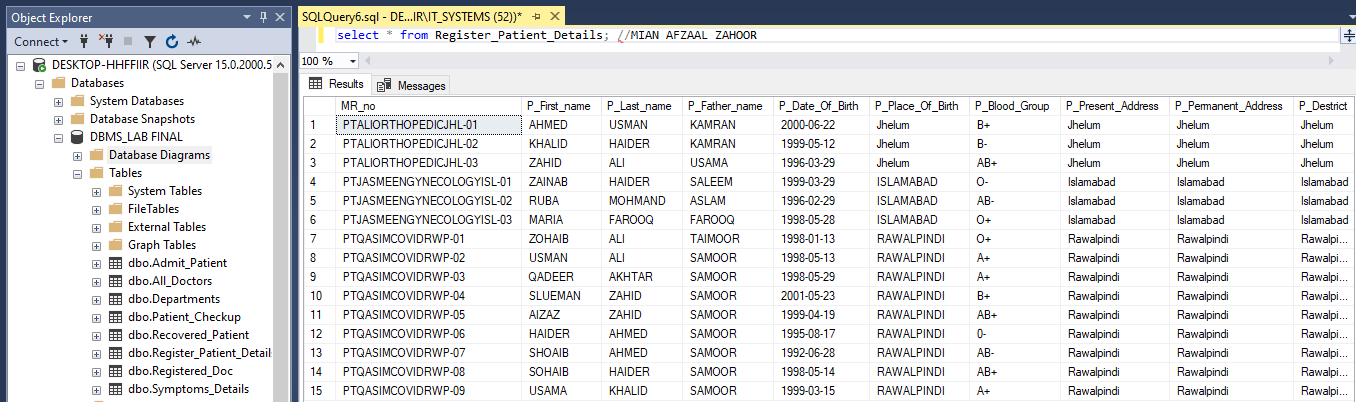
P\_D\_Name varchar(30) foreign key (P\_D\_Name) references Registered\_Doc (D\_Name),

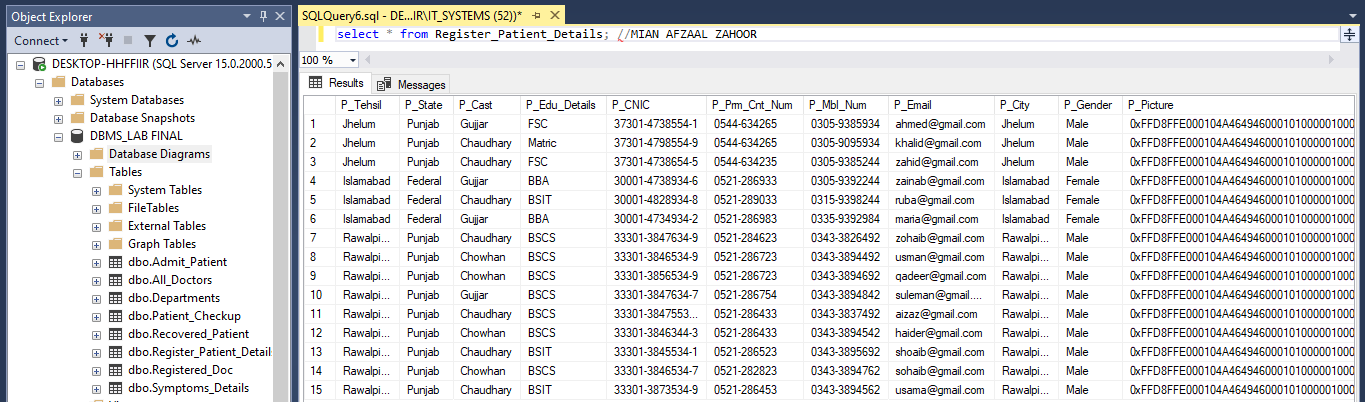
P\_Diagnosis varchar(50),

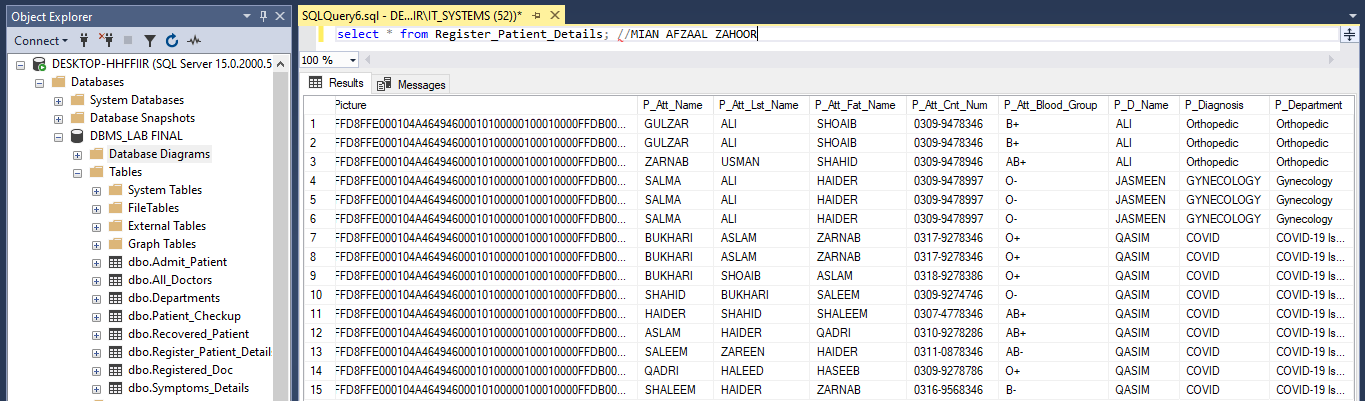
P\_Department varchar(30) foreign key (P\_Department) references Departments (department\_name)

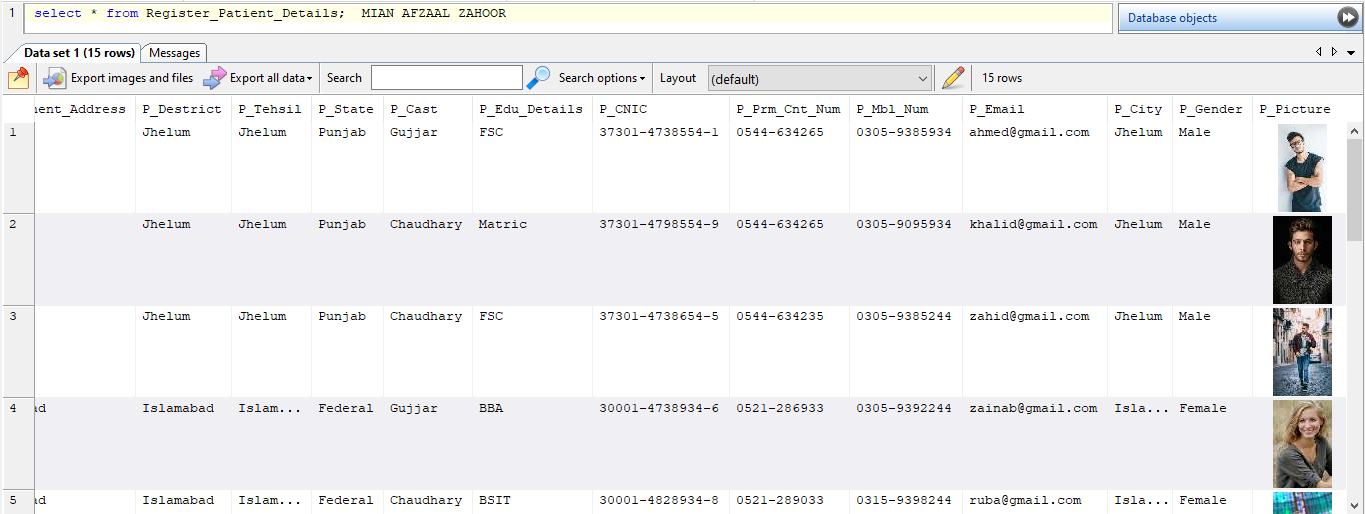
);

**DATA IN Register\_Patient\_Details TABLE**









**5. Patient Checkup**

**QUERY**

create table Patient\_Checkup (

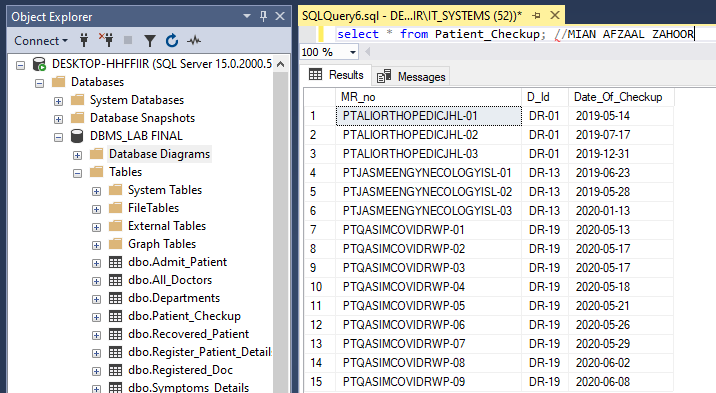
MR\_no varchar(50) foreign key (MR\_no) references Register\_Patient\_Details (MR\_no),

D\_Id varchar(25) foreign key (D\_Id) references All\_Doctors (D\_Id),

Date\_Of\_Checkup date

);

**DATA IN Patient\_Checkup TABLE**



**6. Admit patient**

**QUERY**

create table Admit\_Patient (

MR\_no varchar(50) foreign key (MR\_no) references Register\_Patient\_Details (MR\_no),

Adv\_Pay int,

Mode\_Pay varchar(30),

Room\_Num varchar(10),

department\_name varchar(30) foreign key (department\_name) references Departments (department\_name),

Date\_Of\_Adm date,

Int\_Con varchar(50),

Diagnosis varchar(50),

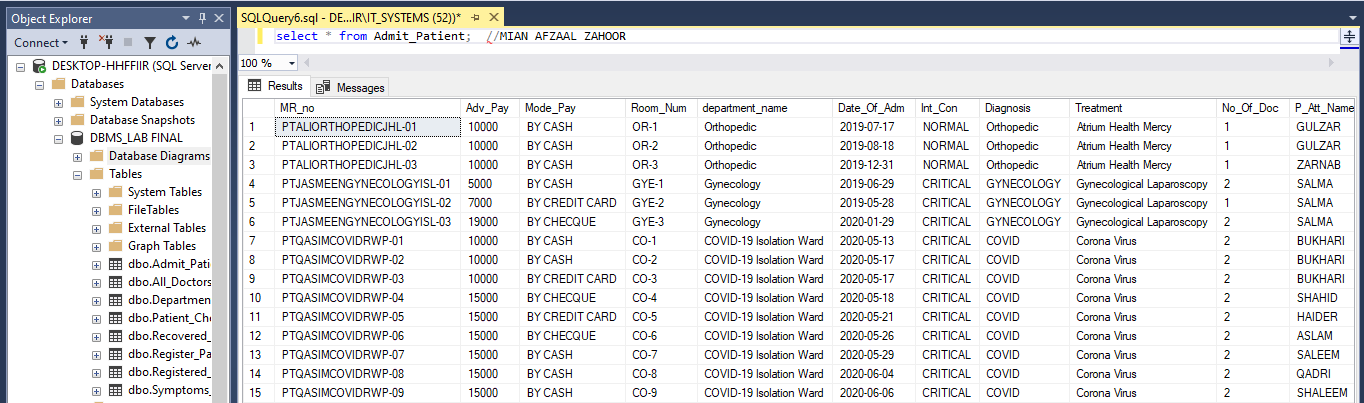
Treatment varchar(50),

No\_Of\_Doc int,

P\_Att\_Name varchar(30)

);

**DATA IN Admit\_Patient TABLE**



**7. Signs/Symptoms Details**

**QUERY**

create table Symptoms\_Details (

MR\_no varchar(50) foreign key (MR\_no) references Register\_Patient\_Details (MR\_no),

Dry\_Cough bit,

Fever bit,

Chest\_Pain bit,

Shortness\_Of\_Breath bit,

Fatigue bit,

Headache bit,

Vomiting bit,

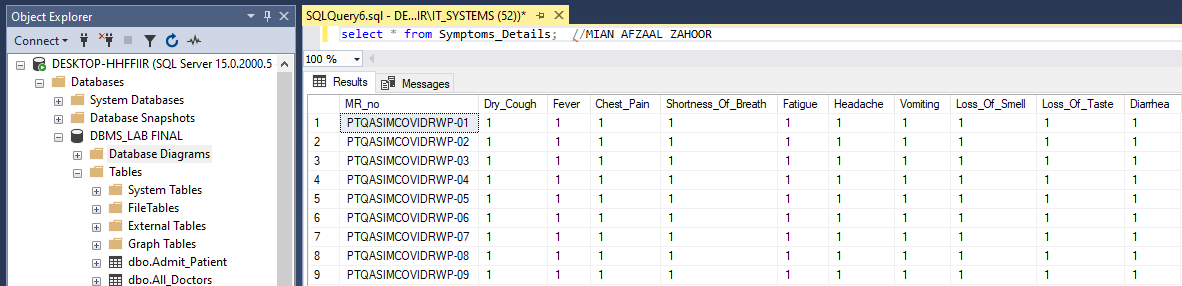
Loss\_Of\_Smell bit,

Loss\_Of\_Taste bit,

Diarrhea bit

);

**DATA IN Symptoms\_Details TABLE**



**8. Recovered Patient**

**QUERY**

create table Recovered\_Patient (

MR\_no varchar(50) foreign key (MR\_no) references Register\_Patient\_Details (MR\_no),

D\_Name varchar(30) foreign key (D\_Name) references Registered\_Doc (D\_Name),

Date\_Of\_Adm date,

Date\_Of\_Dis date,

Willing\_For\_Plasma\_Donation bit

);

**DATA IN Recovered\_Patient TABLE**

select Recovered\_Patient.MR\_no "PATIENT NUMBER", Register\_Patient\_Details.P\_First\_Name "PATIENT NAME",

Register\_Patient\_Details.P\_Last\_Name "LAST NAME", Register\_Patient\_Details.P\_Father\_Name "FATHER NAME",

Register\_Patient\_Details.P\_City "CITY", Register\_Patient\_Details.P\_Blood\_Group "BLOOD GROUP",

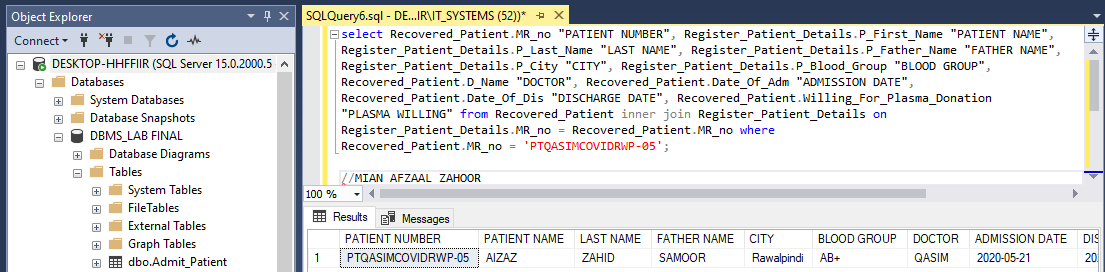
Recovered\_Patient.D\_Name "DOCTOR", Recovered\_Patient.Date\_Of\_Adm "ADMISSION DATE",

Recovered\_Patient.Date\_Of\_Dis "DISCHARGE DATE", Recovered\_Patient.Willing\_For\_Plasma\_Donation

"PLASMA WILLING" from Recovered\_Patient inner join Register\_Patient\_Details on

Register\_Patient\_Details.MR\_no = Recovered\_Patient.MR\_no where

Recovered\_Patient.MR\_no = 'PTQASIMCOVIDRWP-05';



**Question 2 Short Question in light of above case study. (5)**

1. Construct the ER- Diagram of the above scenario.

Note: (Hand drawn Diagram should be added into your assignment. Compare your Hand drawn Diagram with system generated ER and Class diagram and identify the short comings)

**ANSWER:** The difference/short comings was not that much as the ER diagram that is Hand Drawn and the system generated Diagram are conveying the same result. And the Primary Key and Foreign Key both of them are same as they were expected at first.

