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| **National University of Computer and Emerging Sciences** |
| Lab Manual 3  “Introduction to MS SQL Server, DML and DDL” |
|  |
| Database Systems |
| Spring 2018 |

Department of Computer Science

FAST-NU, Lahore, Pakistan

**Exercise**

Create a database of Store, the schema is shown in following figure, Name the database as Store<yourRollNo>

Q1: create all the tables and add all the rows. (format for date mm-dd-yy e.g, ‘02-22-2017’)

Q2: Identify one PK from each table and add the constraint

Q3: Identify all the FK constraints, and add those constraints, such that:

1. If the Student table or ClassVenue Table or Teacher table is updated the referencing columns should also reflect the changes.
2. Student should not be deleted if the details of that order is present.

Q4: Alter table Student by adding new column “warning count” and deleting “SrNum” Column

Q5: Perform the following DML actions on your database, identify whether these operations are valid or not, also state how can we make the invalid queries valid? (Your answers should be written in comments along with your queries)

1. Add new row into Student table, values <L162334, Fozan Shahid, Male, 3.2 >
2. Add new row into ClassVenue table, values <3, CS, 5, Ali>
3. Update Teacher table Change “Kashif zafar” name to “Dr. Kashif Zafar”.
4. Delete Student with rollnum “L162334”
5. Delete Student with rollnum “L164123”
6. Delete Attendance with rollnum “L164124”, if his status is absent

***Bonus Questions:***

1. Alter table and add unique constraint

(Check constraint)

1. Alter Student table and Check Female and Male gender
2. Alter Attendance table and check A and P status

**Student:**

|  |  |  |  |
| --- | --- | --- | --- |
| **SrNum** | **RollNum** | **Name** | **Gender** |
| 1 | L164123 | Ali Ahmad | Male |
| 2 | L164124 | Rafia Ahmed | Female |
| 3 | L164125 | Basit Junaid | Male |

**Attendance:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SrNum** | **RollNum** | **Date** | **Status** | **ClassVenue** |
| 1 | L164123 | 2-22-2016 | P | 2 |
| 2 | L164124 | 2-23-2016 | A | 1 |
| 3 | L164125 | 3-4-2016 | P | 2 |

**ClassVenue:**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Building** | **RoomNum** | **Teacher** |
| 1 | CS | 2 | Sarim Baig |
| 2 | Civil | 7 | Bismillah Jan |

**Teacher:**

|  |  |  |
| --- | --- | --- |
| **Name** | **Designation** | **Department** |
| Sarim Baig | Assistant Prof. | Computer Science |
| Bismillah Jan | Lecturer | Civil Eng. |
| Kashif zafar | Professor | Electrical Eng. |