**Challenge Task**:

Note that it is a challenge individual task, and you must work independently and you are not allowed to collaborate with your peers nor are you authorized to seek help from the lab engineer.

**IMP: Make sure that the final script is in finished form, i.e. you don’t write anything superfluous or delete anything. The lab engineer will come and press F5 after deleting your database and it should work perfectly with no errors.**

**Task**: Your task is to write the SQL script that creates a database containing the following three tables. Make sure you choose the most appropriate datatype for each field and apply all the necessary constraints. Also populate all the tables with the data as shown below. After you are done with the above tasks, solve the queries at the end.

**EMP**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **EMPNO (PK)** | **ENAME** | **Gender** | **JOB** | **MGR** | **SALARY** | **COMM** | **DEPTNO (FK)** |
| **7201** | **Alice** | **F** | Clerk | **7202** | 30,000 |  | **20** |
| **7101** | **Bob** | **M** | Salesman | **7102** | 50,000 | 10,000 | **10** |
| **7102** | **Chris** | **M** | Manager | **7205** | 75,000 |  | **10** |
| **7202** | **David** | **M** | Manager | **7205** | 75,000 |  | **20** |
| **7203** | **Earl** | **M** | President |  | 150,000 |  | **20** |
| **7302** | **Gomes** | **M** | Programmer | **7205** | 50,000 |  | **30** |
| **7204** | **Helen** | **F** | Accountant | **7202** | 50,000 |  | **20** |
| **7103** | **Jamie** | **F** | Salesman | **7102** | 35,000 | 20,000 | **10** |
| **7205** | **Kyle** | **F** | Vice President | **7203** | 100,000 |  | **20** |

**DEPT**

|  |  |  |
| --- | --- | --- |
| **DEPTNO (PK)** | **DEPTNAME** | **CITYID (FK)** |
| 10 | Sales | C10 |
| 20 | Finance and Administration | C20 |
| 30 | Software | C30 |
| 40 | Finance | C30 |

**LOCATION**

|  |  |
| --- | --- |
| **CITYID (PK)** | **CITYNAME** |
| C10 | Los Angeles |
| C20 | Karachi |
| C30 | Lahore |

**Queries**:

Q1: List down all the data in *EMP* table

Q2: List the names of employees working in department 10.

Q3: List *EMPNO*, *ENAME* and *DEPTNAME* of all employees.

Q4: Show the *number of employees* working in department 20