Assignment No.1

Question 1

Write SQL commands to create the following table along with the constraints given and write the given queries.

EMP

Column name	Datatype	Constraint
Eno	Varchar	PK
Ename	Varchar	Not null
Basic-sal	Integer	Default value 5000
incentive	Integer	Should not be greater than basic_sal
dept_no	Varchar	Refers to dno of Dept table
mgr_id	Varchar	Refers to eno

DEPT

Column name	Datatype	Constraint
Dno	Varchar	PK
Dname	Varchar	Not null
No. of emp	Integer	

QUERIES

1. Add a column **'JoiningDate'** to the emp table with the constraint that **JoiningDate** is not null.
2. Add a column **HOD** in DEPT table with proper referential integrity.
3. Find the **eno** of those employees who work in the dept with dept_no **'D1'**
4. Select all data from the DEPT table
5. Create a query to display the name, joining date, and employee number for each employee, with employee number appearing first.

Question 2

Create the following table along with the constraints given and write the given queries in SQL.

Student

Column name	**Datatype**	**Constraint**
sno	Varchar	PK
Sname	Varchar	Not null
age	Integer	Must be >0
gender	char	Should contain 'M' or "F as values

Course

Column name	**Datatype**	**Constraint**
Cno	Varchar	PK
Cname	char(10)	Notnull
Credits	Integer	

Student_Course

Set primary key as combination of sno,cno

Column name	**Datatype**	**Constraint**
Sno	Varchar	Refers to sno of student table
Cno	Varchar	Refers to cno of Course table

QUERIES

1. Change the datatype of **cname** to varchar.
2. Add a constraint to the column **'credits'** of Course table so that the credit should be >0
3. Add two columns **'dob', 'cgpa'** to Student table.
4. Delete column '**age'** from Student table.
5. Retrieve the **dob** and **Sno** of the student(s) whose name is 'Rahul'

Question 3

Create the following table along with the constraints given and write the given queries in SQL.

Supplier

Column name	Datatype	Constraint
Sno	Varchar	PK
Sname	Varchar	Not null
City	Varchar	

Parts

Column name	Datatype	Constraint
Pno	Varchar	PK
Pname	Varchar	Should not be left blank
Color	Char(10)	
Weight	Numeric	

Supplier_Parts

Column name	Datatype	Constraint
Sno	Varchar	Refers to sno of Supplier table
Pno	Varchar	Refers to pno of Parts table
qty	Numeric	Should be >0

Queries

1. Add a column '**date**' to the Supplier_Parts table.
2. Change the name of table '**Supplier_Parts'** to '**Parts_Supplied'**
3. Find the suppliers coming from the city which starts with letter 'T' and 'A' as the last character.
4. Delete table '**Parts_Supplied'**
5. Change the size of **Sname** column in Supplier table to 25.

Question 4

Create the following tables along with the constraints given and write the given queries in SQL.

Programmer

Column name	**Datatype**	**Constraint**
pno	varchar	PK
Pname	Varchar	Not null
Dob	Date	Not null
Doj	Date	Must be > dob
Gender	Char	Must contain 'M' or 'F'
Sal	Numeric	

Studies

Column name	**Datatype**	**Constraint**
pno	Varchar	Foreign key
study_place	Varchar	Not null
course	Varchar	
course_fee	Numeric	

Software

Column name	**Datatype**	**Constraint**
Pno	Varchar	Foreign key
Title	Varchar	Not null
development_cost	integer	Not null
selling_cost	integer	Must be >development_cost

Queries

1. Add columns **Sw_id** and **developed_in** to the software table which should not left blank.
2. Add primary key on the **Sw_id** column.
3. Drop the constraint on the **selling cost** column.
4. Change the name of column '**Doj'** to **'hire_date'** in **Programmer** table
5. Add foreign key on the column **Pname** in Studies table that refers to Programmer table.