

Assignment 1

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1. COLLEGE DATABASE:

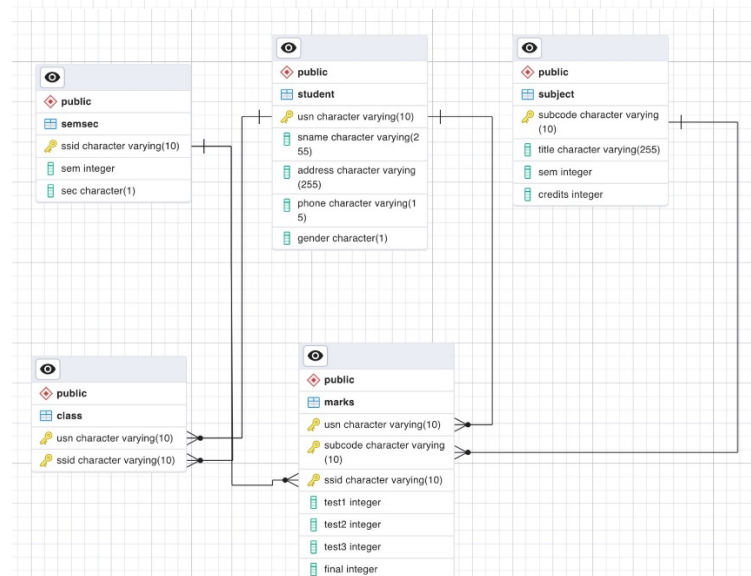
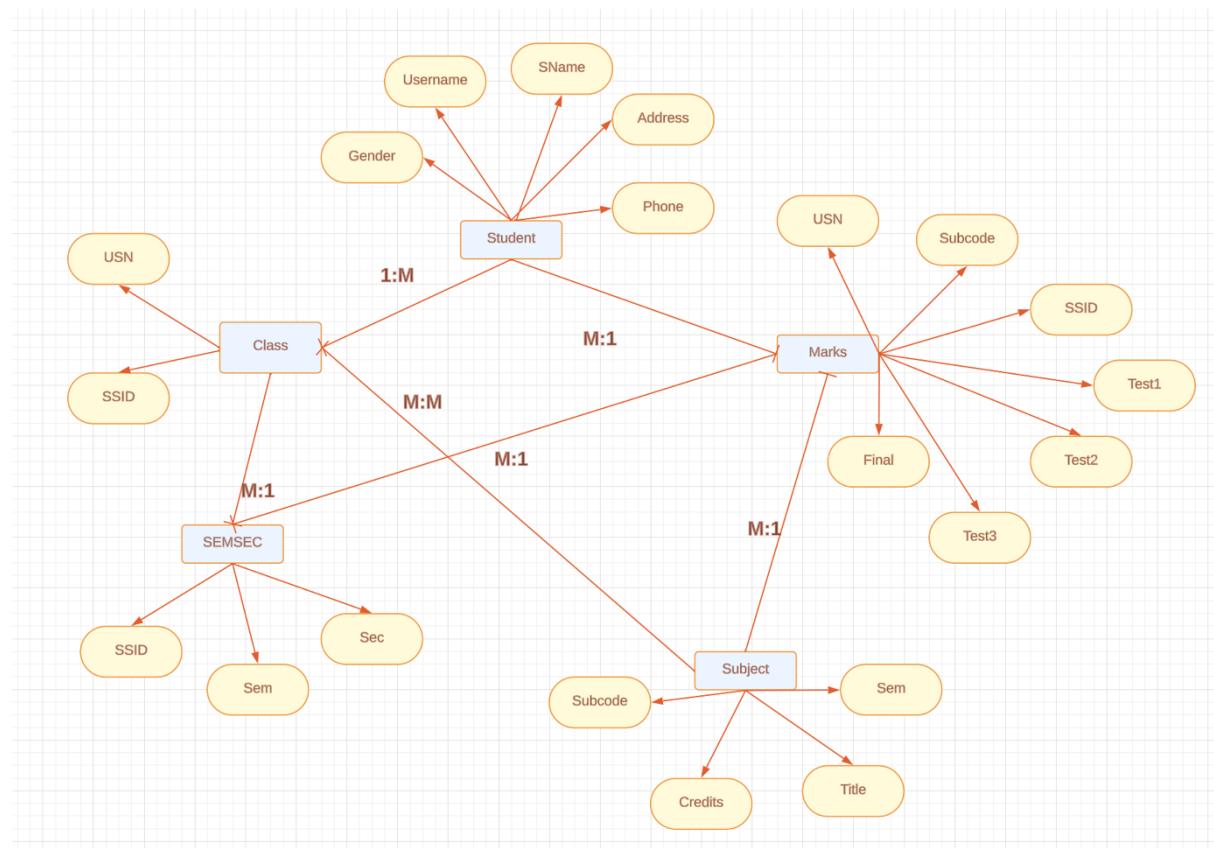
STUDENT (USN, SName, Address, Phone, Gender)

SEMSEC (SSID, Sem, Sec)

CLASS (USN, SSID)

SUBJECT (Subcode, Title, Sem, Credits)

MARKS (USN, Subcode, SSID, Test1, Test2, Test3, Final)



2. COMPANY DATABASE:

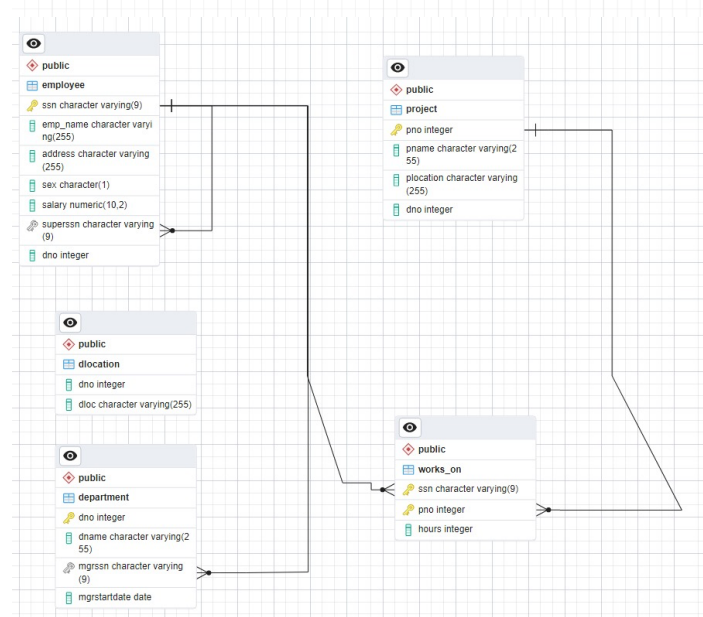
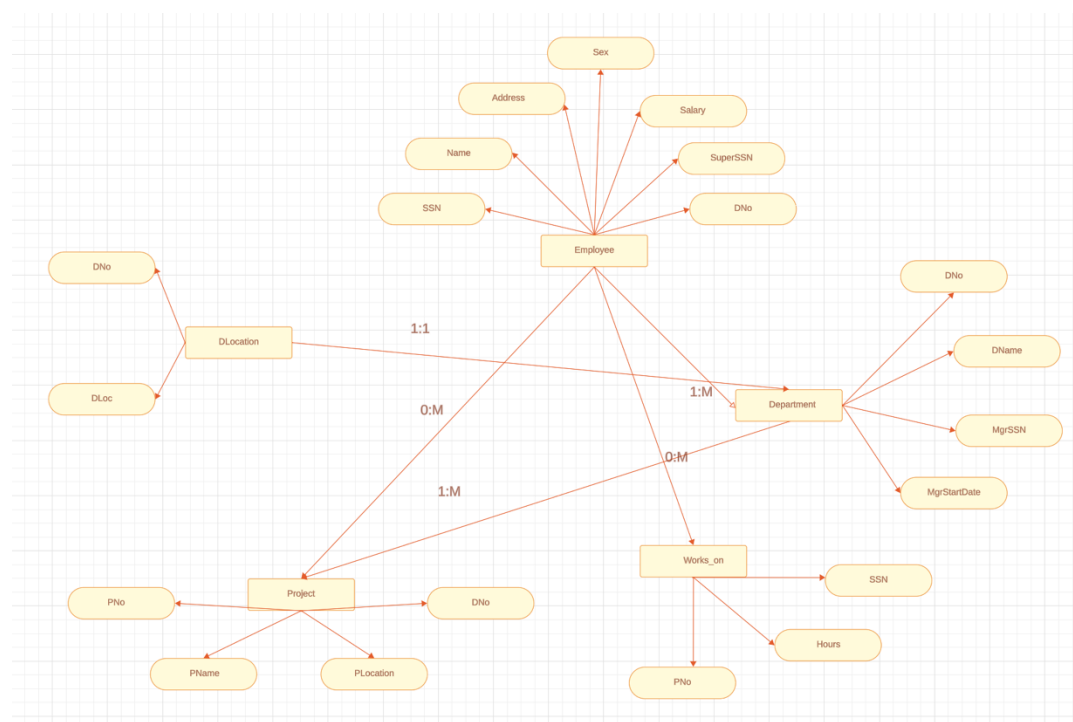
EMPLOYEE (SSN, Name, Address, Sex, Salary, SuperSSN, DNo)

DEPARTMENT (DNo, DName, MgrSSN, MgrStartDate)

DLOCATION (DNo, DLoc)

PROJECT (PNo, PName, PLocation, DNo)

WORKS_ON (SSN, PNo, Hours)



Part II

Consider the database for an organisation. Write the queries for the following (Schema of the tables depends on your creativity; Also include the fields and values mentioned in the question)

(i) Add 5 rows in the employee and dept tables

Employee Table:

Query Query History

```
1 CREATE TABLE Employee (EmpNo INT PRIMARY KEY, Name VARCHAR(50), Designation VARCHAR(50), DeptNo INT, Salary DECIMAL(10, 2));
2 insert into Employee values(1, 'John', 'Manager', 1, 60000.00)
3 insert into Employee values(2, 'Jane', 'Researcher', 1, 45000.00)
4 insert into Employee values(3, 'Bob', 'Typist', 2, 30000.00)
5 insert into Employee values(4, 'Alice', 'Manager', 2, 70000.00)
6 insert into Employee values(5, 'Charlie', 'Analyst', 3, 55000.00)
7 select * from Employee
```

Dept Table:

Query Query History

```
1 create table Department (DeptNo INT PRIMARY KEY, DeptName VARCHAR(100), TotalSalary DECIMAL(15, 2));
2 insert into Department values(1, 'Research', NULL)
3 insert into Department values(2, 'Administration', NULL)
4 insert into Department values(3, 'Headquarter', NULL)
5 select * from Department
```

(ii) Display all the records from the above tables

Employee Table:

Data Output Messages Notifications

	empno [PK] integer	name character varying (50)	designation character varying (50)	deptno integer	salary numeric (10,2)	mobilen character varying (20)
1	1	John	Manager	1	60000.00	123-456-7890
2	2	Jane	Researcher	1	45000.00	987-654-3210
3	3	Bob	Typist	2	30000.00	555-555-5555
4	4	Alice	Manager	2	70000.00	111-222-3333
5	5	Charlie	Analyst	3	55000.00	444-777-8888

Data Output Messages Notifications			
	deptno [PK] integer	deptname character varying (100)	totalsalary numeric (15,2)
1	1	Research	[null]
2	2	Administration	[null]
3	3	Headquarter	[null]

(iii) Display the empno and name of all the employees from department 'Research'

Query Query History	
1	SELECT EmpNo, Name FROM Employee WHERE DeptNo = 1 ;
2	

Data Output Messages Notifications			
	empno [PK] integer	name character varying (50)	
1	1	John	
2	2	Jane	

(iv) Display empno,name,designation,dept no and salary in the descending order of salary

Query Query History	
1	SELECT EmpNo, Name , Designation, DeptNo, Salary FROM Employee ORDER BY Salary DESC ;
2	

Data Output Messages Notifications						
	empno [PK] integer		name character varying (50)	designation character varying (50)	deptno integer	salary numeric (10,2)
1	4		Alice	Manager	2	70000.00
2	1		John	Manager	1	60000.00
3	5		Charlie	Analyst	3	55000.00
4	2		Jane	Researcher	1	45000.00
5	3		Bob	Typist	2	30000.00

(v) Display the empno and name of all employees whose salary is between 20000 and 50000

Query Query History	
1	SELECT EmpNo, Name FROM Employee WHERE Salary BETWEEN 20000 AND 50000;
2	
3	

Data Output Messages Notifications		
	empno [PK] integer	name character varying (50)
1	2	Jane
2	3	Bob










(vi) Display all designations without duplicate values.

Query Query History	
1	SELECT DISTINCT Designation FROM Employee;
2	
3	

Data Output Messages Notifications		
	designation character varying (50)	
1	Typist	
2	Manager	
3	Researcher	
4	Analyst	

(vii) Display the dept name and total salary of employees of each department.

Query Query History	
1	UPDATE Department SET TotalSalary = (SELECT SUM(Salary) FROM Employee WHERE Employee.DeptNo = Department.DeptNo);
2	SELECT DeptName, TotalSalary FROM Department;
3	
4	

Data Output	Messages	Notifications
        		
	deptname character varying (100)	totalsalary numeric (15,2)
1	Research	105000.00
2	Administration	100000.00
3	Headquarter	55000.00

(viii) Change the salary of employees to 25000 whose designation is 'Typist'

Query	Query History
1	UPDATE Employee SET Salary = 25000 WHERE Designation = 'Typist';
2	select * from Employee
3	

Data Output

Messages

Notifications

	empno [PK] integer	name character varying (50)	designation character varying (50)	deptno integer	salary numeric (10,2)	mobilenno character varying (20)
1	1	John	Manager	1	60000.00	123-456-7890
2	2	Jane	Researcher	1	45000.00	987-654-3210
3	4	Alice	Manager	2	70000.00	111-222-3333
4	5	Charlie	Analyst	3	55000.00	444-777-8888
5	3	Bob	Typist	2	25000.00	555-555-5555

(ix) Change the mobile no of employee named 'john'

Query	Query History
1	UPDATE Employee SET MobileNo = '555-123-4567' WHERE Name = 'John';
2	select * from Employee
3	

Data Output

Messages

Notifications

	empno [PK] integer	name character varying (50)	designation character varying (50)	deptno integer	salary numeric (10,2)	mobilenno character varying (20)
1	2	Jane	Researcher	1	45000.00	987-654-3210
2	4	Alice	Manager	2	70000.00	111-222-3333
3	5	Charlie	Analyst	3	55000.00	444-777-8888
4	3	Bob	Typist	2	25000.00	555-555-5555
5	1	John	Manager	1	60000.00	555-123-4567

(x) Delete all employees whose salaries are equal to Rs.70000,; Select the department that has total salary paid for its employees more than 25000

Query Query History

```
1 DELETE FROM Employee WHERE Salary = 70000;  
2 SELECT DeptName FROM Department WHERE TotalSalary > 25000;  
3
```



	empno [PK] integer	name character varying (50)	designation character varying (50)	deptno integer	salary numeric (10,2)	mobileno character varying (20)
1	2	Jane	Researcher	1	45000.00	987-654-3210
2	5	Charlie	Analyst	3	55000.00	444-777-8888
3	3	Bob	Typist	2	25000.00	555-555-5555
4	1	John	Manager	1	60000.00	555-123-4567

Data Output Messages Notifications



	deptname character varying (100)
1	Research
2	Administration
3	Headquarter