

DBMS Lab - 2

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5th Semester - B Section - Batch - 3

Company Database

Describe all the tables previously created in the database.

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
fname	varchar(20)	NO		NULL	
lname	varchar(20)	NO		NULL	
ssn	varchar(10)	NO	PRI	NULL	
bdate	date	YES		NULL	
address	varchar(50)	YES		NULL	
gender	varchar(2)	YES		NULL	
salary	int	YES		30000	
sup_ssn	varchar(10)	YES	MUL	NULL	
dno	varchar(10)	YES		NULL	

9 rows in set (0.03 sec)

```
mysql> alter table department add mgr_start_date date;
```

Query OK, 0 rows affected (0.15 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> desc department;
```

Field	Type	Null	Key	Default	Extra
dname	varchar(10)	NO		NULL	
dno	varchar(10)	NO	PRI	NULL	
mgr_ssn	varchar(10)	NO	MUL	NULL	
mgr_start_date	date	YES		NULL	

4 rows in set (0.00 sec)

```
mysql> alter table department add dlocation varchar(20) not null;
```

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> desc department;
```

Field	Type	Null	Key	Default	Extra
dname	varchar(10)	NO		NULL	
dno	varchar(10)	NO	PRI	NULL	
mgr_ssn	varchar(10)	NO	MUL	NULL	
mgr_start_date	date	YES		NULL	
dlocation	varchar(20)	NO		NULL	

```
mysql> desc department;
```

Field	Type	Null	Key	Default	Extra
dname	varchar(10)	NO		NULL	
dno	varchar(10)	NO	PRI	NULL	
mgr_ssn	varchar(10)	NO	MUL	NULL	
mgr_start_date	date	YES		NULL	
dlocation	varchar(20)	NO		NULL	

```
5 rows in set (0.00 sec)
```

```
mysql> desc project;
```

Field	Type	Null	Key	Default	Extra
pname	varchar(20)	NO		NULL	
pno	varchar(10)	NO	PRI	NULL	
dno	varchar(10)	YES	MUL	NULL	
pdate	date	YES		NULL	

```
4 rows in set (0.03 sec)
```

```
mysql> alter table project add ploc varchar(30);
Query OK, 0 rows affected (0.08 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> |
```

• adding entries into project table

```
mysql> insert into
-> project (pname, pno, dno, pdate, ploc)
-> values
-> ('project a', 1, 3, '2021-11-21', 'Bangalore'),
-> ('project b', 2, 10, '2011-09-19', 'Trichy'),
-> ('project c', 3, 13, '2021-11-11', 'Mysore'),
-> ('project d', 4, 11, '2019-01-03', 'Mumbai'),
-> ('project e', 5, 13, '2018-04-01', 'Mysore');
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> select * from project;
```

pname	pno	dno	pdate	ploc
project a	1	3	2021-11-21	Bangalore
project b	2	10	2011-09-19	Trichy
project c	3	13	2021-11-11	Mysore
project d	4	11	2019-01-03	Mumbai
project e	5	13	2018-04-01	Mysore

```
5 rows in set (0.00 sec)
```

```
mysql> |
```

- updating the sup_ssn

```
mysql> update employee set sup_ssn = 4 where ssn = 1;
Query OK, 1 row affected (0.04 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update employee set sup_ssn = NULL where ssn = 2;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update employee set sup_ssn = 2 where ssn = 3;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update employee set sup_ssn = NULL where ssn = 4;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> update employee set sup_ssn = 4 where ssn = 5;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> |
```

- Adding Abhishek to the Employee table

```
mysql> insert into employee values ('Abhishek', 'Kumar', '5', '2000-04-21', 'Kolkata', 'M', 45000, '5', '11');
Query OK, 1 row affected (0.01 sec)

mysql> |
```

```
mysql> select * from employee;
```

fname	lname	ssn	bdate	address	gender	salary	sup_ssn	dno
Raghunathan	R	1	2000-10-28	Bangalore	M	50000	1	3
Kiran	Dev	2	2001-11-17	Chennai	M	45000	2	13
Priya	Kumar	3	2001-01-11	Mumbai	F	50400	3	11
Dhruv	Sharma	4	2000-06-12	Delhi	M	4000	4	10
Abhishek	Kumar	5	2000-04-21	Kolkata	M	45000	5	11

```
5 rows in set (0.00 sec)

mysql> |
```

Q. Insert values into department table

```
mysql> insert into department values ('HR', '10', '4', '2020-11-19');
Query OK, 1 row affected (0.01 sec)

mysql> insert into department values ('Research', '3', '1', '2021-11-13');
Query OK, 1 row affected (0.01 sec)

mysql> insert into department values ('Accounts', '10', '4', '2019-10-12');
ERROR 1062 (23000): Duplicate entry '10' for key 'department.PRIMARY'
mysql> insert into department values ('Accounts', '13', '2', '2019-10-12');
Query OK, 1 row affected (0.01 sec)

mysql> insert into department values ('Development', '11', '5', '2019-10-12');
Query OK, 1 row affected (0.01 sec)

mysql> |
```

```
mysql> desc department;
```

Field	Type	Null	Key	Default	Extra
dname	varchar(10)	NO		NULL	
dno	varchar(10)	NO	PRI	NULL	
mgr_ssn	varchar(10)	NO	MUL	NULL	
mgr_start_date	date	YES		NULL	
dlocation	varchar(20)	NO		NULL	

```
5 rows in set (0.00 sec)
```

```
mysql> |
```

• Adding Abhishek to the Employee table

```
mysql> insert into employee values ('Abhishek', 'Kumar', '5', '2000-04-21', 'Kolkata', 'M', 45000, '5', '11');  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> |
```

```
mysql> select * from employee;
```

fname	lname	ssn	bdate	address	gender	salary	sup_ssn	dno
Raghunathan	R	1	2000-10-28	Bangalore	M	50000	1	3
Kiran	Dev	2	2001-11-17	Chennai	M	45000	2	13
Priya	Kumar	3	2001-01-11	Mumbai	F	50400	3	11
Dhruv	Sharma	4	2000-06-12	Delhi	M	4000	4	10
Abhishek	Kumar	5	2000-04-21	Kolkata	M	45000	5	11

```
5 rows in set (0.00 sec)
```

```
mysql> |
```

Q 1. Retrieve every department details.

```
mysql> select * from department;
```

dname	dno	mgr_ssn	mgr_start_date
HR	10	4	2020-11-19
Development	11	5	2019-10-12
Accounts	13	2	2019-10-12
Research	3	1	2021-11-13

```
4 rows in set (0.01 sec)
```

```
mysql> |
```

Q 2. Retrieve the details of the employee whose name is Abhishek.

```
mysql> select * from employee where fname = 'Abhishek';
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| fname | lname | ssn | bdate | address | gender | salary | sup_ssn | dno |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Abhishek | Kumar | 5 | 2000-04-21 | Kolkata | M | 45000 | 4 | 11 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.01 sec)

mysql> |
```

Q 3. Retrieve name and address of all employees who work for research department.

```
mysql> select fname, address from employee, department where dname = 'research' and employee.dno = department.dno;
+-----+-----+
| fname | address |
+-----+-----+
| Raghunathan | Bangalore |
+-----+-----+
1 row in set (0.00 sec)

mysql> |
```

Q 4. For every project located in Mysore, list the project number, controlling department number and project managers start date and his first name.

```
mysql> select pno, department.dno, mgr_start_date, fname from project inner join department on project.dno=department.dno inner join employee on employee.ssn=department.mgr_ssn where ploc='Mysore';
+-----+-----+-----+-----+
| pno | dno | mgr_start_date | fname |
+-----+-----+-----+-----+
| 3 | 13 | 2019-10-12 | Kiran |
| 5 | 13 | 2019-10-12 | Kiran |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> |
```

Q 5. Select / retrieve the salary of every employee.

```
mysql> select salary from employee;
```

```
+-----+  
| salary |  
+-----+  
| 50000 |  
| 45000 |  
| 50400 |  
| 4000  |  
| 45000 |  
+-----+
```

```
5 rows in set (0.00 sec)
```

```
mysql> |
```

Q 6. Retrieve the unique salary values.

```
mysql> select distinct salary from employee;
```

```
+-----+  
| salary |  
+-----+  
| 50000 |  
| 45000 |  
| 50400 |  
| 4000  |  
+-----+
```

```
4 rows in set (0.01 sec)
```

```
mysql> |
```