

Solution – Practice Lab#3

1.

```
mysql> create table department (Dept_ID int primary key, Location varchar(20) default "SNU");
Query OK, 0 rows affected (0.40 sec)
```

```
mysql> create table employee (Emp_ID int primary key auto_increment, Emp_name varchar(30) default "SNU Student", Mgr_ID int, Dept_ID int) auto_increment=1001;
Query OK, 0 rows affected (0.33 sec)
```

2.

```
mysql> insert into department values
-> (200, "Washington"), (201, "California"), (202, Default), (203, "Hauston"),
(204, "washington"), (205, Default);
Query OK, 6 rows affected (0.11 sec)
```

```
mysql> insert into employee (Emp_Name, Mgr_ID, Dept_ID) values
-> ("Alex Bert", 1003, 200), (default, 1003, 200), ("Mery Lee", NULL, 200),
-> (default, 1006, 202), ("Reyan Fert", 1006, 202), ("Luther Warn", NULL, 202)
-> , ("Amy", 1008, 203), ("Coogan", NULL, 204);
Query OK, 8 rows affected (0.09 sec)
Records: 8 Duplicates: 0 Warnings: 0
```

```
mysql> select * from department;
+-----+-----+
| Dept_ID | Location |
+-----+-----+
| 200 | Washington |
| 201 | California |
| 202 | SNU |
| 203 | Hauston |
| 204 | washington |
| 205 | SNU |
+-----+-----+
6 rows in set (0.01 sec)
```

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

Emp_ID	Emp_name	Mgr_ID	Dept_ID
1001	Alex Bert	1003	200
1002	SNU Student	1003	200
1003	Mery Lee	NULL	200
1004	SNU Student	1006	202
1005	Reyan Fert	1006	202
1006	Luther Warn	NULL	202
1007	Amy	1008	203
1008	Coogan	NULL	204

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

1. Join Operations:

```
mysql> select Emp_ID, Emp_Name, Location from department right outer join employee
on department.dept_id=employee.dept_ID;
```

Emp_ID	Emp_Name	Location
1001	Alex Bert	Washington
1002	SNU Student	Washington
1003	Mery Lee	Washington
1004	SNU Student	SNU
1005	Reyan Fert	SNU
1006	Luther Warn	SNU
1007	Amy	Hauston
1008	Coogan	washington

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

2.

```
mysql> select Emp_ID, Emp_Name, Location from department left outer join employee o
n department.dept_id=employee.dept_ID;
```

Emp_ID	Emp_Name	Location
1001	Alex Bert	Washington
1002	SNU Student	Washington
1003	Mery Lee	Washington
1004	SNU Student	SNU
1005	Reyan Fert	SNU
1006	Luther Warn	SNU
1007	Amy	Hauston
1008	Coogan	washington
NULL	NULL	California
NULL	NULL	SNU

3.

```
mysql> select Emp_ID, Emp_Name, Location from department right outer join employee
on department.dept_id=employee.dept_ID;
+-----+-----+-----+
| Emp_ID | Emp_Name | Location |
+-----+-----+-----+
| 1001 | Alex Bert | Washington |
| 1002 | SNU Student | Washington |
| 1003 | Mery Lee | Washington |
| 1004 | SNU Student | SNU |
| 1005 | Reyan Fert | SNU |
| 1006 | Luther Warn | SNU |
| 1007 | Amy | Huston |
| 1008 | Coogan | washington |
+-----+-----+-----+
8 rows in set (0.00 sec)
```

4.

```
mysql> select E1.Emp_ID, E1.Emp_name from employee E1, Employee E2 where E1.Emp_id=
E2.Mgr_ID;
+-----+-----+
| Emp_ID | Emp_name |
+-----+-----+
| 1003 | Mery Lee |
| 1003 | Mery Lee |
| 1006 | Luther Warn |
| 1006 | Luther Warn |
| 1008 | Coogan |
+-----+-----+
5 rows in set (0.00 sec)
```

5.

```
mysql> select * from department cross join employee;
+-----+-----+-----+-----+-----+-----+
| Dept_ID | Location | Emp_ID | Emp_name | Mgr_ID | Dept_ID |
+-----+-----+-----+-----+-----+-----+
| 200 | Washington | 1001 | Alex Bert | 1003 | 200 |
| 201 | California | 1001 | Alex Bert | 1003 | 200 |
| 202 | SNU | 1001 | Alex Bert | 1003 | 200 |
| 203 | Huston | 1001 | Alex Bert | 1003 | 200 |
| 204 | washington | 1001 | Alex Bert | 1003 | 200 |
| 205 | SNU | 1001 | Alex Bert | 1003 | 200 |
```

Alter Operation's:

```
mysql> alter table employee add salary decimal (8,2) not null;
Query OK, 0 rows affected (0.40 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> insert into employee (Emp_name, Mgr_ID, Dept_ID, Salary) values ("XYZ", 1003
, 200, 10000.12);
Query OK, 1 row affected (0.09 sec)
```

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

Emp_ID	Emp_name	Mgr_ID	Dept_ID	salary
1001	Alex Bert	1003	200	0.00
1002	SNU Student	1003	200	0.00
1003	Mery Lee	NULL	200	0.00
1004	SNU Student	1006	202	0.00
1005	Reyan Fert	1006	202	0.00
1006	Luther Warn	NULL	202	0.00
1007	Amy	1008	203	0.00
1008	Coogan	NULL	204	0.00
1009	XYZ	1003	200	10000.12

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

```
mysql> alter table employee change Salary Emp_Sal decimal(10,2);
Query OK, 9 rows affected (0.73 sec)
Records: 9 Duplicates: 0 Warnings: 0
```

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
Emp_ID	int(11)	NO	PRI	NULL	auto_increment
emp_name	varchar(40)	YES		NULL	
Mgr_ID	int(11)	YES		NULL	
Dept_ID	int(11)	YES		NULL	
Emp_Sal	decimal(10,2)	YES		NULL	

```
5 rows in set (0.14 sec)
```

```
mysql> alter table employee drop Emp_sal;
Query OK, 0 rows affected (0.48 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
Emp_ID	int(11)	NO	PRI	NULL	auto_increment
emp_name	varchar(40)	YES		NULL	
Mgr_ID	int(11)	YES		NULL	
Dept_ID	int(11)	YES		NULL	

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