

1) Create 3 tables named students, department, year

```
mysql> create database gen_ai; Query OK, 1 row affected (0.01 sec)
```

```
mysql> use gen_ai; Database changed mysql> create table  
Department(Dept_ID int(10) primary key, Dept_Name  
varchar(10));
```

Query OK, 0 rows affected, 1 warning (0.02 sec)

```
mysql> create table Year(Year_ID int(10) primary key, Year_Name  
varchar(10));
```

Query OK, 0 rows affected, 1 warning (0.02 sec)

```
mysql> create table Student(Std_ID int(10) primary key, Std_Name  
varchar(10));
```

Query OK, 0 rows affected, 1 warning (0.02 sec)

2) student should contain relationship to both department and year

```
mysql> alter table Student add(Dept_ID int(10), foreign key(Dept_ID)  
references  
Department(Dept_ID), Year_ID int(10), foreign key(Year_ID) references  
Year(Year_ID));
```

```
mysql> desc Department;
```

```
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key  | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Dept_ID        | int           | NO   | PRI  | NULL    |       |
| Dept_Name      | varchar(10)   | YES  |      | NULL.    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> desc Year;
```

```
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key  | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Year_ID        | int           | NO   | PRI  | NULL    |       |
| Year_Name      | varchar(10)   | YES  |      | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> desc Student;
```

```
+-----+-----+-----+-----+-----+-----+ |
| Field          | Type          | Null | Key  | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Std_ID         | int           | NO   | PRI  | NULL    |       |
| Std_Name       | varchar(10)   | YES  |      | NULL    |       |
+-----+-----+-----+-----+-----+-----+ |
```

```
| Dept_ID | int | YES | MUL | NULL |
| Year_ID | int | YES | MUL | NULL |
4 rows in set (0.00 sec)
```

4)store 5 students for each department

```
mysql> insert into Student values (1012,"Kiran",101,20); Query OK, 1
row affected
(0.01 sec)
```

```
mysql> insert into Student values (1013,"Akshay",101,20); Query OK, 1
row affected (0.01 sec)
```

```
mysql> insert into Student values (1014,"Adithya",101,21); Query OK, 1
row
affected (0.01 sec)
```

```
mysql> insert into Student values
(1015,"Aradya",101,21); Query OK, 1 row affected
(0.01 sec) mysql> select *from Student;
```

```
+-----+-----+-----+-----+
-----+ | Std_ID | Std_Name | Dept_ID |
Year_ID |
+-----+-----+-----+-----+

| 1011 | Nani | 101 | 20 |
| 1012 | Kiran | 101 | 20 |
```

1013	Akshay	101	20	
1014	Adithya	101	21	
1015	Aradya	101	21	
1022	Vyshnavi	102	20	
1033	Sravan	103	22	
1044	Ruchi	104	21	
1055	Shanthi	105	23	
+-----+-----+-----+-----+				

9 rows in set (0.00 sec)

mysql> insert into Student values (1023,"Vasishta",102,20); Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values (1024,"Varun",102,21); Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values (1025,"Viplav",102,20); Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values (1032,"Sankalp",103,22); Query OK, 1 row affected (0.01 sec) mysql> insert into Student values (1034,"Sai",103,21); Query OK, 1 row affected (0.01 sec)

mysql> insert into Student values (1035,"Sanvi",103,21); Query OK, 1 row affected (0.02 sec)

```
mysql> insert into Student values (1036,"Sanvitha",103,21); Query OK,  
1 row  
affected (0.01 sec)
```

```
mysql> insert into Student values (1041,"Ram",104,22); Query OK, 1 row  
affected  
(0.01 sec)
```

```
mysql> insert into Student values (1042,"Ramya",104,22); Query OK, 1  
row  
affected (0.01 sec)
```

```
mysql> insert into Student values (1043,"Radhika",104,21); Query OK, 1  
row affected (0.01 sec)
```

```
mysql> insert into Student values (1045,"Rakesh",104,21); Query OK, 1  
row affected (0.01 sec)
```

```
mysql> insert into Student values (1051,"Sarvalok",105,22); Query OK,  
1 row affected (0.01 sec)
```

```
mysql> insert into Student values (1052,"Santhosh",105,22); Query OK,  
1 row affected (0.01 sec)
```

```
mysql> insert into Student values (1053,"Samhitha",105,22); Query OK,  
1 row affected (0.01 sec)
```

```
mysql> insert into Student values (1054,"Sajay",105,22); Query OK, 1  
row affected  
(0.01 sec)
```

```
mysql> select *from Student;
```

Std_ID	Std_Name	Dept_ID	Year_ID
1011	Nani	101	20
1012	Kiran	101	20
1013	Akshay	101	20
1014	Adithya	101	20
1015	Aradya	101	20
1022	Vyshnavi	101	20
1023	Vasishta	101	20
1024	Varun	102	21
1025	Viplav	101	20
1032	Sankalp.	101	20
1033	Sravan	101	20
1034	Sai	101	20

1035	Sanvi	103	21	
1036	Sanvitha	103	21	
1041	Ram	104	22	
1042	Ramya	104	22	
1043	Radhika	101	20	
1044	Ruchi	101	20	
1045	Rakesh	101	20	
1051	Sarvalok	101	20	
1052	Santhosh	101	20	
1053	Samhitha	101	20	
1054	Sajay	105	22	
1055	Shanthi	105	23	
+-----+-----+-----+-----+				

24 rows in set (0.00 sec)

5)write a query to display students from CSE department

```
mysql> select Std_Name from Student where Dept_ID=101;
```

```
+-----+  
| Std_Name |  
+-----+
```

```
| Nani |  
| Kiran |  
| Akshay |  
| Adithya |  
| Aradya |
```

```
+-----+
```

5 rows in set (0.00 sec)

6)write a query to display only deptname using student table

```
mysql> select Dept_Name from Student;
```

```
+-----+  
| Dept_Name |  
+-----+
```

```
| CSE |
```

```
| CSE |
```

```
| CSE |
```

```
| CSE |
```

```
| CSE |
```

```
| IT |
```


|IT |

|IT |

|IT |

| EEE |

| EEE |

| EEE |

| EEE |

| EEE |

| ECE |

| ECE |

| ECE |

| ECE |

| ECE |

| CIVIL |

| CIVIL |

| CIVIL |

| CIVIL |

| CIVIL |

+-----+

24 rows in set (0.00 sec)

7)write a query to display students sorted by dept and firstname

```
mysql> select Std_Name,Dept_Name from Student order by  
Std_Name,Dept_Name;
```

```
+-----+-----+  
| Std_Name | Dept_Name |  
+-----+-----+
```

```
| Adithya | CSE|
```

```
| Radhika | ECE |
```

```
| Akshay | CSE  |
```

```
| Aradya | CSE  |
```

```
|Kiran   | CSE  |
```

```
| Nani    |CSE   |
```

```
| Radhika | ECE |
```

```
| Rakesh | ECE |
```

```
| Ram    | ECE   |
```

```
| Ramya  | ECE   |
```

```
| Santhosh | CIVIL |
```

```
|Sanvi    | EEE   |
```

```
| Sanvitha | EEE.  |
```

```
| Sarvalok | CIVIL |
```

```
| Shanthi | CIVIL |
```

Sravan		EEE	
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Varun		IT	
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Vasishta		IT	
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Viplav		IT	
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Vyshnavi		IT	
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+-----+-----+

24 rows in set (0.00 sec)