

Database Systems Lab-5

Changing properties of the table using ALTER Table

Create database "LAB5_Eno"

Use LAB5_Eno

Create following table "EMP"

```
mysql> select * from emp;
+-----+-----+-----+
| fname  | ssn    | salary |
+-----+-----+-----+
| Jhon   | 123456790 | 30000 |
| Franklin | 333445556 | 40000 |
| Joyce  | 453453454 | 25000 |
| Ramesh | 666884445 | 38000 |
| James  | 888665556 | 55000 |
| Jennifer | 987654322 | 43000 |
| Ahmad  | 987987988 | 25000 |
| Alicia | 999887778 | 25000 |
+-----+-----+-----+
9 rows in set (0.01 sec)
```

Displaying properties of a table

Desc emp;

```
mysql> desc emp;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| fname | varchar(20)   | YES  |     | NULL    |       |
| ssn   | char(9)       | YES  |     | NULL    |       |
| salary | int           | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

adding column to the table:

alter table emp add column gender char(2);

```
mysql> alter table emp add column gender char(2);
```

```
Query OK, 0 rows affected (0.02 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc emp;
```

| Field | Type | Null | Key | Default | Extra |
|--------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | YES | | NULL | |
| salary | int | YES | | NULL | |
| gender | char(2) | YES | | NULL | |

4 rows in set (0.00 sec)

adding column to the table after particular column:

alter table emp add column email varchar(30) after gender;

```
mysql> alter table emp add column email varchar(30) after gender;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc emp;
```

| Field | Type | Null | Key | Default | Extra |
|--------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | YES | | NULL | |
| salary | int | YES | | NULL | |
| gender | char(2) | YES | | NULL | |
| email | varchar(30) | YES | | NULL | |

5 rows in set (0.00 sec)

Dropping columns from a table:

alter table emp drop column email;

```
mysql> alter table emp drop column email;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc emp;
```

| Field | Type | Null | Key | Default | Extra |
|--------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | YES | | NULL | |
| salary | int | YES | | NULL | |
| gender | char(2) | YES | | NULL | |

4 rows in set (0.00 sec)

Changing/modifying data type of a column:

alter table emp modify column gender char(1);

```
mysql> alter table emp modify column gender char(1);
```

```
Query OK, 8 rows affected (0.03 sec)
```

```
Records: 8 Duplicates: 0 Warnings: 0
```

```
mysql> desc emp;
```

| Field | Type | Null | Key | Default | Extra |
|--------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | YES | | NULL | |
| salary | int | YES | | NULL | |
| gender | char(1) | YES | | NULL | |

4 rows in set (0.00 sec)

Adding check constraint for existing table:

alter table emp add constraint chk1 check (gender in ('m','f'));

```
mysql> alter table emp add constraint chk1 check (gender in ('m','f'));
```

```
Query OK, 8 rows affected (0.04 sec)
```

```
Records: 8 Duplicates: 0 Warnings: 0
```

Adding primary key for existing table:

alter table emp add constraint emp_pk primary key(ssn);

mysql> alter table emp add constraint emp_pk primary key(ssn);

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc emp;

| Field | Type | Null | Key | Default | Extra |
|--------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | NO | PRI | NULL | |
| salary | int | YES | | NULL | |
| gender | char(1) | YES | | NULL | |

4 rows in set (0.00 sec)

Adding a column sup_ssn to the table

alter table emp add sup_ssn char(9);

mysql> alter table emp add sup_ssn char(9);

Query OK, 0 rows affected (0.01 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc emp;

| Field | Type | Null | Key | Default | Extra |
|---------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | NO | PRI | NULL | |
| salary | int | YES | | NULL | |
| gender | char(1) | YES | | NULL | |
| sup_ssn | char(9) | YES | | NULL | |

alter table emp add constraint Adding foreign key in existing table:

emp_fk1 foreign key(sup_ssn) references emp(Ssn);

```
mysql> alter table emp
-> add constraint emp_fk1
-> foreign key (sup_ssn)
-> references emp(ssn);
Query OK, 8 rows affected (0.03 sec)
Records: 8  Duplicates: 0  Warnings: 0
```

```
mysql> desc emp;
```

| Field | Type | Null | Key | Default | Extra |
|---------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | NO | PRI | NULL | |
| salary | int | YES | | NULL | |
| gender | char(1) | YES | | NULL | |
| sup_ssn | char(9) | YES | MUL | NULL | |

5 rows in set (0.00 sec)

Adding primary key and foreign key while creating a table (Assuming emp table exist):

create table dept (dno int primary key, dname char(3), mgr int references emp(ssn));

```
mysql> create table dept (dno int primary key, dname char(3), mgr int references emp(ssn));
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> desc dept;
```

| Field | Type | Null | Key | Default | Extra |
|-------|---------|------|-----|---------|-------|
| dno | int | NO | PRI | NULL | |
| dname | char(3) | YES | | NULL | |
| mgr | int | YES | | NULL | |

3 rows in set (0.00 sec)

Dropping primary key:

alter table emp drop primary key;

```
mysql> alter table emp drop primary key;
```

```
Query OK, 8 rows affected (0.03 sec)
```

```
Records: 8  Duplicates: 0  Warnings: 0
```

```
mysql> desc emp;
```

| Field | Type | Null | Key | Default | Extra |
|---------|-------------|------|-----|---------|-------|
| fname | varchar(20) | YES | | NULL | |
| ssn | char(9) | NO | | NULL | |
| salary | int | YES | | NULL | |
| gender | char(1) | YES | | NULL | |
| sup_ssn | char(9) | YES | MUL | NULL | |

5 rows in set (0.00 sec)

Dropping table:

Drop table dept;

```
mysql> Drop table dept;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> show tables;
```

| Tables_in_lab5_221b056 |
|------------------------|
| emp |

1 row in set (0.01 sec)

Renaming table:

rename table dept to depart;

```
mysql> rename table dept to depart;  
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> show tables;  
+-----+  
| Tables_in_lab5_221b056 |  
+-----+  
| depart                  |  
| emp                    |  
+-----+  
2 rows in set (0.00 sec)
```

Creating table with default values:

create table dept (dno int primary key, dname char(3) default 'CSE', mgr int references emp(ssn));

insert into dept (dno, mgr) values (2,123456789);

select * From dept;

```
mysql> create table dept (dno int primary key, dname char(3) default 'CSE', mgr int references  
-> emp(ssn));  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> show tables;  
+-----+  
| Tables_in_lab5_221b056 |  
+-----+  
| depart                  |  
| dept                    |  
| emp                    |  
+-----+  
3 rows in set (0.00 sec)
```

```
mysql> desc dept  
-> ;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type   | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| dno   | int    | NO   | PRI | NULL    |       |  
| dname | char(3) | YES  |     | CSE     |       |  
| mgr   | int    | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.00 sec)
```

Dropping default values:

alter table dept alter column dno drop default;

```
mysql> alter table dept alter column dname drop default;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc dept;
```

| Field | Type | Null | Key | Default | Extra |
|-------|---------|------|-----|---------|-------|
| dno | int | NO | PRI | NULL | |
| dname | char(3) | YES | | NULL | |
| mgr | int | YES | | NULL | |

3 rows in set (0.00 sec)