

Database Systems Lab-5

Changing properties of the table using ALTER Table

Use following queries to learn how to use ALTER Table option of MySQL Database System and try and apply change of attributes to the company databas:

Create database "LAB5_Eno"

Use LAB5_Eno

Create following table "EMP"

fname	ssn	salary
John	123456789	30000
Franklin	333445555	40000
Joyce	453453453	25000
Ramesh	666884444	38000
James	888665555	55000
Jennifer	987654321	43000
Ahmad	987987987	25000
Alicia	999887777	25000

Displaying properties of a table

Desc emp;

adding column to the table:

alter table emp add column gender char(2);

adding column to the table after particular column:

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

Dropping columns from a table:

alter table emp drop column email;

Changing/modifying data type of a column:

alter table emp modify column gender char(1);

Adding check constraint for existing table:

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

Adding primary key for existing table:

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

Adding a column sup_ssn to the table

```
alter table emp add sup_ssn char(9);
```

Adding foreign key in existing table:

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

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));
```

Dropping primary key:

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

Dropping table:

```
Drop table dept;
```

Renaming table:

```
rename table dept to depart;
```

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;
```

Dropping default values:

```
alter table dept alter column dno drop default;
```

Query to display Constraint name:

```
select COLUMN_NAME, CONSTRAINT_NAME, REFERENCED_COLUMN_NAME,  
REFERENCED_TABLE_NAME from information_schema.KEY_COLUMN_USAGE  
where TABLE_NAME = 'employee';
```

ALTER TABLE options

```
ALTER TABLE tbl_name  
[alter_option [, alter_option] ...]  
[partition_options]
```

```

alter_option: {
    table_options
    | ADD [COLUMN] col_name column_definition
      [FIRST | AFTER col_name]
    | ADD [COLUMN] (col_name column_definition,...)
    | ADD {INDEX | KEY} [index_name]
      [index_type] (key_part,...) [index_option] ...
    | ADD {FULLTEXT | SPATIAL} [INDEX | KEY] [index_name]
      (key_part,...) [index_option] ...
    | ADD [CONSTRAINT [symbol]] PRIMARY KEY
      [index_type] (key_part,...)
      [index_option] ...
    | ADD [CONSTRAINT [symbol]] UNIQUE [INDEX | KEY]
      [index_name] [index_type] (key_part,...)
      [index_option] ...
    | ADD [CONSTRAINT [symbol]] FOREIGN KEY
      [index_name] (col_name,...)
      reference_definition
    | ADD [CONSTRAINT [symbol]] CHECK (expr) [[NOT] ENFORCED]
    | DROP {CHECK | CONSTRAINT} symbol
    | ALTER {CHECK | CONSTRAINT} symbol [[NOT] ENFORCED]
    | ALGORITHM [=] {DEFAULT | INSTANT | INPLACE | COPY}
    | ALTER [COLUMN] col_name {
        SET DEFAULT {literal | (expr)}
        | SET {VISIBLE | INVISIBLE}
        | DROP DEFAULT
      }
    | ALTER INDEX index_name {VISIBLE | INVISIBLE}
    | CHANGE [COLUMN] old_col_name new_col_name column_definition
      [FIRST | AFTER col_name]
    | [DEFAULT] CHARACTER SET [=] charset_name [COLLATE [=]
collation_name]
    | CONVERT TO CHARACTER SET charset_name [COLLATE collation_name]
    | {DISABLE | ENABLE} KEYS
    | {DISCARD | IMPORT} TABLESPACE
    | DROP [COLUMN] col_name
    | DROP {INDEX | KEY} index_name
    | DROP PRIMARY KEY
    | DROP FOREIGN KEY fk_symbol
    | FORCE
    | LOCK [=] {DEFAULT | NONE | SHARED | EXCLUSIVE}
    | MODIFY [COLUMN] col_name column_definition
      [FIRST | AFTER col_name]
    | ORDER BY col_name [, col_name] ...
    | RENAME COLUMN old_col_name TO new_col_name
    | RENAME {INDEX | KEY} old_index_name TO new_index_name
    | RENAME [TO | AS] new_tbl_name
    | {WITHOUT | WITH} VALIDATION
}

```