

Title: Design and Develop SQL DDL statements which demonstrate the use of SQL objects such as Table, View, Index, Sequence, Synonym, different constraints etc.

```
C:\Users\HP>mysql -u root -p
```

```
Enter password: ****
```

```
Welcome to the MySQL monitor.  Commands end with ; or \g.
```

```
Your MySQL connection id is 14
```

```
Server version: 8.0.38 MySQL Community Server - GPL
```

```
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```

```
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affiliates. Other names may be trademarks of their respective  
owners.
```

```
Type 'help;' or '\h' for help. Type '\c' to clear the current input  
statement.
```

```
mysql> show  
databases;
```

```
+-----+  
-+  
| Database          |  
+-----+  
| emp               |  
| information_schema |  
| mysql             |  
| performance_schema |  
| sys               |  
+-----+
```

```
5 rows in set (0.04 sec)
```

```
mysql> create database te_A355;
```

```
Query OK, 1 row affected (0.02 sec)
```

```
mysql> show databases;
```

```
+-----+  
| Database          |  
+-----+  
| information_schema |  
| mysql             |  
| performance_schema |  
| sys               |  
| te_A355           |  
+-----+
```

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

```
mysql> use te_A355;
```

```
Database changed
```

```
mysql> create table student(roll_no int(30) primary key,name  
varchar(40),age int(30));
```

```
Query OK, 0 rows affected, 2 warnings (0.06 sec)
```

```
/* Create a table which are contains column(attributes: with data types */
```

```
mysql> desc  
student;
```

```
+-----+-----+-----+-----+-----+-----+  
| Field  | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| roll_no | int           | NO   | PRI | NULL     |       |  
| name    | varchar(40)   | YES  |     | NULL     |       |  
| age     | int           | YES  |     | NULL     |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.00 sec)
```

```
mysql> create table stud(name varchar(40) not  
NULL);
```

```
Query OK, 0 rows affected (0.06 sec)
```

```
/* by using Alter command New attribute Address are added in table:  
*/
```

```
mysql> Alter table Student add Address  
varchar(30);
```

```
Query OK, 0 rows affected (0.06 sec)
```

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

```
mysql> desc  
student;
```

```
+-----+-----+-----+-----+-----+-----+  
| Field  | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| roll_no | int           | NO   | PRI | NULL     |       |  
| name    | varchar(40)   | YES  |     | NULL     |       |  
| age     | int           | YES  |     | NULL     |       |  
| Address | varchar(30)   | YES  |     | NULL     |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.00 sec)
```

```
/* by using Alter Modify table */
```

```
mysql> Alter table Student modify age  
int(5);
```

```
Query OK, 0 rows affected, 1 warning (0.05 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 1
```

```
mysql> desc  
student;
```

```
+-----+-----+-----+-----+-----+-----+  
| Field  | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| roll_no | int           | NO   | PRI | NULL     |       |  
| name    | varchar(40)   | YES  |     | NULL     |       |  
| age     | int           | YES  |     | NULL     |       |  
| Address | varchar(30)   | YES  |     | NULL     |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.00 sec)
```

```
/* by using Alter Drop the age from the Student */
```

```
mysql> Alter table Student drop column
age;
```

```
Query OK, 0 rows affected (0.06 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> desc
student;
```

```
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| roll_no | int          | NO   | PRI | NULL    |       |
| name    | varchar(40)  | YES  |     | NULL    |       |
| Address | varchar(30)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
/* Create view for the name and roll_no from the table */
mysql> create view v1 as select name,roll_no from
student ;
```

```
Query OK, 0 rows affected (0.05 sec)
```

```
/* use select * for displaying the view */
mysql> select * from
v1;
```

```
Empty set (0.00 sec)
```

```
/* Create index for the name & roll_no from the student */
mysql> create unique index ind1 on
student(name,roll_no);
```

```
Query OK, 0 rows affected (0.07 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> show index from student;
```

```
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | Sub_part | Packed | Null | Index_type | Comment |
+-----+-----+-----+-----+-----+-----+
| student | 0 | PRIMARY | 1 | roll_no | A | 0 | NULL | NULL | YES | BTREE |  |
+-----+-----+-----+-----+-----+-----+
| student | 0 | ind1 | 1 | name | A | 0 | NULL | NULL | YES | BTREE |  |
+-----+-----+-----+-----+-----+-----+
| student | 0 | ind1 | 2 | roll_no | A | 0 | NULL | NULL | YES | BTREE |  |
+-----+-----+-----+-----+-----+-----+
```

	0	NULL	NULL		BTREE	
YES	NULL					

```

+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+

```

3 rows in set (0.06 sec)

```
mysql> alter table student add index
ind2(address);
```

Query OK, 0 rows affected (0.06 sec)
Records: 0 Duplicates: 0 Warnings: 0

```
/* Display the index from student */
```

```
mysql> show index from student;
```

student	0	PRIMARY	1	roll_no		
0	NULL	NULL	BTREE			
YES	NULL	student	0	ind1		
name						
0	NULL	NULL	YES	BTREE		
YES	NULL	student	0	ind1		
roll_no						
0	NULL	NULL	BTREE			
YES	NULL					
student	1	ind2	1	Address		
0	NULL	NULL	YES	BTREE		

Error! Bookmark not defined.

```

+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+
---
-----+-----+-----+-----+
| Table    | Non_unique | Key_name | Seq_in_index | Column_name |
Collation | Cardinality | Sub_part | Packed | Null | Index_type |
Comment
| Index_comment | Visible | Expression |
+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+
---
-----+-----+-----+-----+
| YES      | NULL      |
+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+
---
-----+-----+-----+-----+

```

4 rows in set (0.01 sec)

```
/* Remove the student from the database(te_A355) : */
```

```
mysql> drop table student;
```

Query OK, 0 rows affected (0.05 sec)

```
mysql> desc student;
```

ERROR 1146 (42S02): Table 'te_A355.student' doesn't exist