**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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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

| Index\_comment | Visible | Expression |

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

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

# | student | 0 | PRIMARY | 1 | roll\_no | A

| 0 | NULL | NULL | | BTREE | |

# | YES | NULL |

| student | 0 | ind1 | 1 | name | A

| 0 | NULL | NULL | YES | BTREE | |

# | YES | NULL |

| student | 0 | ind1 | 2 | roll\_no | A

# | 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;**  3](#_Toc5756)

[| student | 0 | PRIMARY | 1 | roll\_no | 3](#_Toc5757)

[| 0 | NULL | NULL | | BTREE | | | YES | NULL | | student | 0 | ind1 | 1 | name | 4](#_Toc5758)

[| 0 | NULL | NULL | YES | BTREE | | | YES | NULL | | student | 0 | ind1 | 2 | roll\_no | 4](#_Toc5759)

[| 0 | NULL | NULL | | BTREE | | | YES | NULL | 4](#_Toc5760)

[| student | 1 | ind2 | 1 | Address || 0 | NULL | NULL | YES | BTREE | | **Error! Bookmark not defined.**](#_Toc5761)

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

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

| 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