**Practical no:- 2A**

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**Aim:-** Design and develop SQL DDL statements which demonstrates the use of SQL objects such as table,view,index,sequence,synonym.

sudo s(base) sspm@sspm:~$ sudosu [sudo] password for sspm: root@sspm:/home/sspm# mysql -u root -p Enter password:

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

Your MySQL connection id is 8

Server version: 8.0.39-0ubuntu0.22.04.1 (Ubuntu)

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

mysql> create database sakshi; Query OK, 1 row affected (0.34 sec)

mysql> use sakshi; Database changed

mysql> create table school(id int,namevarchar(15),address varchar(50),class varchar(10),marks int);

Query OK, 0 rows affected (0.90 sec)

mysql>desc school;

+ + + + + + +

| Field | Type | Null | Key | Default | Extra |

+ + + + + + +

| id | int | YES | | NULL | |

| name | varchar(15) | YES | | NULL | |

| address | varchar(50) | YES | | NULL | |

| class | varchar(10) | YES | | NULL | |

| marks | int | YES | | NULL | |

+ + + + + + +

5 rows in set (0.02 sec) mysql> insert into

school(id,name,address,class,marks)values(1,'sakshi','vadgoan','TE',85),(2,'ekta','nira','SE',98),(3,'s iddhi','pune','BE',87),(4,'shweta','mumbai','FE',90),(5,'akshata','baramati','TE',89),(6,'tejaswini','pha

ltan','SE',86),(7,'gauri','pune','BE',89),(8,'nandini','someshwar','FE',80);

Query OK, 8 rows affected (0.14 sec) Records: 8 Duplicates: 0 Warnings: 0 mysql> select \* from school;

+ + + + -+ + | id | name | address | class | marks |

+ + + + -+ +

| 1 | sakshi | vadgoan | TE | 85 |

| 2 | ekta | nira | SE | 98 |

| 3 | siddhi | pune | BE | 87 |

| 4 | shweta | mumbai | FE | 90 |

1. | akshata | baramati | TE | 89 |
2. | tejaswini | phaltan | SE | 86 |
3. | gauri | pune | BE | 89 |
4. | nandini | someshwar | FE | 80 |

++ + + -+ +

8 rows in set (0.00 sec)

mysql> create table newschool as select id,name,marks from school;

Query OK, 8 rows affected (1.04 sec)

Records: 8 Duplicates: 0 Warnings: 0

mysql> select \* from newschool;

+ + + +

| id | name | marks |

+ + + +

|  |  |  |  |
| --- | --- | --- | --- |
| | | 1 | sakshi | | | 85 | |
| | | 2 | ekta | | | 98 | |
| | | 3 | siddhi | | | 87 | |

| 4 | shweta | 90 | | 5 | akshata | 89 |

| 6 | tejaswini | 86 |

| 7 | gauri | 89 |

| 8 | nandini | 80 |

+ + + +

8 rows in set (0.00 sec)

mysql> alter table school ADD grade VARCHAR(2);

Query OK, 0 rows affected (0.71 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> select \* from school;

+ + + + -+ + +

| id | name | address | class | marks | grade |

+ + + + -+ + +

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| | | 1 | sakshi | | vadgoan | TE | | | 85 | NULL | |
| | | 2 | ekta | | nira | SE | | | 98 | NULL | |
| | | 3 | siddhi | | pune | BE | | | 87 | NULL | |

| 4 | shweta | mumbai | FE | 90 | NULL |

| 5 | akshata | baramati | TE | 89 | NULL |

| 6 | tejaswini | phaltan | SE | 86 | NULL |

| 7 | gauri | pune | BE | 89 | NULL |

| 8 | nandini | someshwar | FE | 80 | NULL |

+ + + + -+ + +

8 rows in set (0.00 sec)

mysql> UPDATE school SET grade='b' where marks>80;

Query OK, 7 rows affected (0.11 sec)

Rows matched: 7 Changed: 7 Warnings: 0

mysql> UPDATE school SET grade='a' where marks>87;

Query OK, 4 rows affected (0.09 sec)

Rows matched: 4 Changed: 4 Warnings: 0

mysql> select \* from school;

+ + + + -+ + + | id | name | address | class | marks | grade |

+ + + + -+ + +

1. | sakshi | vadgoan | TE | 85 | b |
2. | ekta | nira | SE | 98 | a |
3. | siddhi | pune | BE | 87 | b |
4. | shweta | mumbai | FE | 90 | a |

| 5 | akshata | baramati | TE | 89 | a |

| 6 | tejaswini | phaltan | SE | 86 | b |

| 7 | gauri | pune | BE | 89 | a |

| 8 | nandini | someshwar | FE | 80 | NULL |

+ + + + -+ + +

8 rows in set (0.00 sec)

mysql> create view data as select \* from school; Query OK, 0 rows affected (0.20 sec)

mysql> select \* from data;

+ + + + -+ + + | id | name | address | class | marks | grade |

+ + + + -+ + +

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| | | 1 | sakshi | | vadgoan | | TE | | | 85 | b | | |
| | | 2 | ekta | | nira | | SE | | | 98 | a | | |
| | | 3 | siddhi | | pune | | BE | | | 87 | b | | |

| 4 | shweta | mumbai | FE | 90 | a |

| 5 | akshata | baramati | TE | 89 | a |

| 6 | tejaswini | phaltan | SE | 86 | b |

| 7 | gauri | pune | BE | 89 | a |

| 8 | nandini | someshwar | FE | 80 | NULL |

+ + + + -+ + +

8 rows in set (0.00 sec)

mysql> create view data1 as select id,name,marks from school; Query OK, 0 rows affected (0.19 sec)

mysql> select \* from data1;

+ + + +

| id | name | marks |

+ + + +

|  |  |  |  |
| --- | --- | --- | --- |
| | | 1 | sakshi | | | 85 | |
| | | 2 | ekta | | | 98 | |
| | | 3 | siddhi | | | 87 | |

| 4 | shweta | 90 | | 5 | akshata | 89 |

| 6 | tejaswini | 86 |

| 7 | gauri | 89 |

| 8 | nandini | 80 |

+ + + +

8 rows in set (0.00 sec)

mysql> update data1 set name='priya' where id=6; Query OK, 1 row affected (0.11 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> select \* from data1;

+ + + +

| id | name | marks |

+ + + +

| 1 | sakshi | 85 |

| 2 | ekta | 98 | 3 | siddhi | 87 |

1. | shweta | 90 |
2. | akshata | 89 |
3. | priya | 86 |

| 7 | gauri | 89 |

| 8 | nandini | 80 |

+ + + +

8 rows in set (0.00 sec)

mysql> drop view data;

Query OK, 0 rows affected (0.17 sec)

mysql> select \* from data;

ERROR 1146 (42S02): Table 'sakshi.data' doesn't exist mysql> create index i1 on school(id); Query OK, 0 rows affected (0.66 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> show index from school;

+ + + -+ + + + + + +



| Table | Non\_unique | Key\_name | Seq\_in\_index | Column\_name | Collation | Cardinality |

Sub\_part | Packed | Null | Index\_type | Comment | Index\_comment | Visible | Expression |

+ + + -+ + + + + + +



| school | 1 | i1 | 1 | id | A | 8 | NULL

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

+ + + -+ + + + + + +



1 row in set (0.04 sec)

mysql> drop index i1 on school; Query OK, 0 rows affected (0.42 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> show index from school; Empty set (0.01 sec)

mysql> create table te(rollnointauto\_increment,primary key(rollno),name varchar(10)); Query OK, 0 rows affected (0.97 sec)

mysql> alter table teauto\_increment=1; Query OK, 0 rows affected (0.16 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> insert into te(name)values('shree'),('payal'),('swara');

Query OK, 3 rows affected (0.10 sec)

Records: 3 Duplicates: 0 Warnings: 0

mysql> select \* from te;

+ + +

| rollno | name |

+ + +

| 1 | shree |

| 2 | payal |

| 3 | swara |

+ + +

3 rows in set (0.00 sec)