

ASSIGNMENT - A2

SQL Queries:

- A) Design and develop a sql ddl statements which demonstrate the use of sql object such as table,view,index,sequence,synonym,different constraint,etc.
B) Write at least 10 sql querrys on a suitable database application using sql dml statements

```
mysql> show databases;
```

Database
information_schema
mysql
performance_schema
sys

5 rows in set (0.00 sec)

```
mysql> create database practical;
```

Query OK, 1 row affected (0.02 sec)

```
mysql> use practical;
```

Database changed

```
mysql> create table stud(rno int primary key auto_increment, name varchar(20), age int, marks int);
```

Query OK, 0 rows affected (0.07 sec)

```
mysql> desc stud;
```

Field	Type	Null	Key	Default	Extra
rno	int	NO	PRI	NULL	auto_increment
name	varchar(20)	YES		NULL	
age	int	YES		NULL	
marks	int	YES		NULL	

4 rows in set (0.00 sec)

```
mysql> alter table stud modify age int not null;
```

Query OK, 0 rows affected (0.11 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> desc stud;
```

Field	Type	Null	Key	Default	Extra
rno	int	NO	PRI	NULL	auto_increment
name	varchar(20)	YES		NULL	
age	int	NO		NULL	
marks	int	YES		NULL	

```
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> insert into stud(name,age,marks) values('Shital',18,85);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into stud(name,age,marks) values('Sakshi',18,82);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into stud(name,age,marks) values('Sanket',19,80);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into stud(name,age,marks) values('Gayatri',17,90);
Query OK, 1 row affected (0.02 sec)
```

```
mysql> insert into stud(name,age,marks) values('Om',20,90);
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select * from stud;
+-----+-----+-----+-----+
| rno | name   | age | marks |
+-----+-----+-----+-----+
| 1   | Shital | 18  | 85    |
| 2   | Sakshi | 18  | 82    |
| 3   | Sanket | 19  | 80    |
| 4   | Gayatri | 17  | 90    |
| 5   | Om     | 20  | 90    |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> update stud set age = 19 where rno = 4;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from stud;
+-----+-----+-----+-----+
| rno | name   | age | marks |
+-----+-----+-----+-----+
| 1   | Shital | 18  | 85    |
| 2   | Sakshi | 18  | 82    |
| 3   | Sanket | 19  | 80    |
| 4   | Gayatri | 19  | 90    |
| 5   | Om     | 20  | 90    |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> delete from stud where rno = 5;
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select * from stud;
+-----+-----+-----+-----+
| rno | name   | age | marks |
+-----+-----+-----+-----+
```

1	Shital	18	85
2	Sakshi	18	82
3	Sanket	19	80
4	Gayatri	19	90

4 rows in set (0.00 sec)

```
mysql> select * from stud where name LIKE 'S%';
```

rno	name	age	marks
1	Shital	18	85
2	Sakshi	18	82
3	Sanket	19	80

3 rows in set (0.00 sec)

```
mysql> select * from stud where name LIKE '%i';
```

rno	name	age	marks
2	Sakshi	18	82
4	Gayatri	19	90

2 rows in set (0.00 sec)

```
mysql> select name as student_Name from stud;
```

student_Name
Shital
Sakshi
Sanket
Gayatri

4 rows in set (0.00 sec)

```
mysql> select name as student_Name from stud order by name;
```

student_Name
Gayatri
Sakshi
Sanket
Shital

4 rows in set (0.00 sec)

```
mysql> select name as student_Name, Marks as topper from stud order by name
LIMIT 3;
```

student_Name	topper
Gayatri	90

Sakshi	82
Sanket	80

3 rows in set (0.00 sec)

```
mysql> select name as student_Name, Marks as topper from stud order by marks LIMIT 3;
```

student_Name	topper
Sanket	80
Sakshi	82
Shital	85

3 rows in set (0.00 sec)

```
mysql> select rno, name from stud where rno >=2 and rno <=3;
```

rno	name
2	Sakshi
3	Sanket

2 rows in set (0.00 sec)

```
mysql> alter table stud add column city varchar(20);
```

Query OK, 0 rows affected (0.05 sec)

Records: 0 Duplicates: 0 Warnings: 0

```
mysql> insert into stud(name,age,marks,city) values('Pratik',21,55,'Nashik');
```

Query OK, 1 row affected (0.02 sec)

```
mysql> insert into stud(name,age,marks,city) values('Abhishek',19,95,'Nashik');
```

Query OK, 1 row affected (0.02 sec)

```
mysql> insert into stud(name,age,marks,city) values('Jacita',18,85,'Nashik');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into stud(name,age,marks,city) values('Sonam',22,87,'Sinnar');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> update stud set city = 'Sinnar' where name = 'Shital';
```

Query OK, 1 row affected (0.02 sec)

Rows matched: 1 Changed: 1 Warnings: 0

```
mysql> select * from stud;
```

rno	name	age	marks	city
1	Shital	18	85	Sinnar
2	Sakshi	18	82	NULL
3	Sanket	19	80	NULL
4	Gayatri	19	90	NULL

6	Dinesh	20	75	NULL
7	Rakesh	21	45	NULL
8	Pratik	21	55	Nashik
9	Abhishek	19	95	Nashik
10	Jacita	18	85	Nashik
11	Sonam	22	87	Sinnar

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

10 rows in set (0.00 sec)

mysql> select MAX(marks) from stud;

+-----+

| MAX(marks) |

+-----+

| 95 |

+-----+

1 row in set (0.01 sec)

mysql> select MIN(marks) from stud;

+-----+

| MIN(marks) |

+-----+

| 45 |

+-----+

1 row in set (0.00 sec)

mysql> select COUNT(marks) from stud;

+-----+

| COUNT(marks) |

+-----+

| 10 |

+-----+

1 row in set (0.00 sec)

mysql> select COUNT(marks) from stud where marks >=90;

+-----+

| COUNT(marks) |

+-----+

| 2 |

+-----+

1 row in set (0.00 sec)

mysql> select SUM(marks) from stud;

+-----+

| SUM(marks) |

+-----+

| 779 |

+-----+

1 row in set (0.00 sec)

mysql> select SUM(marks / 10) from stud;

+-----+

| SUM(marks / 10) |

+-----+

| 77.9000 |

```
+-----+
1 row in set (0.00 sec)
```

```
mysql> select AVG(marks) from stud;
```

```
+-----+
| AVG(marks) |
+-----+
|    77.9000 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> select age, count(name) from stud group by age;
```

```
+-----+-----+
| age | count(name) |
+-----+-----+
| 18 |          3 |
| 19 |          3 |
| 20 |          1 |
| 21 |          2 |
| 22 |          1 |
+-----+-----+
5 rows in set (0.01 sec)
```

```
mysql> select age, max(marks) from stud group by age;
```

```
+-----+-----+
| age | max(marks) |
+-----+-----+
| 18 |          85 |
| 19 |          95 |
| 20 |          75 |
| 21 |          55 |
| 22 |          87 |
+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> CREATE VIEW STUD_VIEW AS SELECT * FROM STUD;
ERROR 1146 (42S02): Table 'practical.STUD' doesn't exist
mysql> show tables;
```

```
+-----+
| Tables_in_practical |
+-----+
| Fee                  |
| Student              |
| mytable              |
| stud                 |
+-----+
4 rows in set (0.00 sec)
```

```
mysql> create view stud_view as select * from stud;
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> select * from stud_view;
```

```
+-----+-----+-----+-----+
| rno | name   | age | marks | city |
+-----+-----+-----+-----+

```

1	Shital	18	85	Sinnar
2	Sakshi	18	82	NULL
3	Sanket	19	80	NULL
4	Gayatri	19	90	NULL
6	Dinesh	20	75	NULL
7	Rakesh	21	45	NULL
8	Pratik	21	55	Nashik
9	Abhishek	19	95	Nashik
10	Jacita	18	85	Nashik
11	Sonam	22	87	Sinnar

10 rows in set (0.00 sec)

```
mysql> create view stud_view2 as select * from stud where city='Nashik';
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> select * from stud_view2;
```

rno	name	age	marks	city
8	Pratik	21	55	Nashik
9	Abhishek	19	95	Nashik
10	Jacita	18	85	Nashik

3 rows in set (0.00 sec)

```
mysql> update stud_view2 set marks = 96 where name = 'Pratik';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select * from stud_view2;
```

rno	name	age	marks	city
8	Pratik	21	96	Nashik
9	Abhishek	19	95	Nashik
10	Jacita	18	85	Nashik

3 rows in set (0.00 sec)

```
mysql> drop view stud_view2;
Query OK, 0 rows affected (0.07 sec)
```

```
mysql> select * from stud_view2;
ERROR 1146 (42S02): Table 'practical.stud_view2' doesn't exist
```

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

```
mysql> select * from stud_view;
ERROR 1146 (42S02): Table 'practical.stud_view' doesn't exist
mysql> select * from view_stud;
```

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

rno	name	age	marks	city
1	Shital	18	85	Sinnar
2	Sakshi	18	82	NULL
3	Sanket	19	80	NULL
4	Gayatri	19	90	NULL
6	Dinesh	20	75	NULL
7	Rakesh	21	45	NULL
8	Pratik	21	96	Nashik
9	Abhishek	19	95	Nashik
10	Jacita	18	85	Nashik
11	Sonam	22	87	Sinnar

10 rows in set (0.01 sec)

mysql> create index nameindex on stud(name);

Query OK, 0 rows affected (0.09 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> show index from stud;

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment
stud	0	PRIMARY	1	rno	A	8	NULL			BTREE		YES
stud	1	nameindex	1	name	A	10	NULL	YES		BTREE		YES

2 rows in set (0.01 sec)