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Assignment No. 2

Aim: Design at least 10 SQL queries for suitab1le database application using SQL DML statements: Insert, Select, Update, Delete with operators, functions, and set operator, all types of Join, Sub-Query and View.

- **Create table employe1e**

mysql> create table employee(eno int primary key,ename varchar(25),job varchar(25),hiredate date,dept int,salary decimal(6,2));

Query OK, 0 rows affected (0.17 sec)

mysql> desc employee;

```
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| eno      | int(11)     | NO   | PRI | NULL    |       |
| ename    | varchar(25) | YES  |     | NULL    |       |
| job      | varchar(25) | YES  |     | NULL    |       |
| hiredate | date        | YES  |     | NULL    |       |
| dept     | int(11)     | YES  |     | NULL    |       |
| salary   | decimal(6,2)| YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
```

6 rows in set (0.03 sec)

- **INSERT into table**

```
mysql> insert into employee values(101,'Vijay','manager','2001-04-24',20,2345.43);

Query OK, 1 row affected (0.05 sec)
```

```
mysql> insert into employee values(212,'rahul','clerk','2004-02-22',10,1225.33);

Query OK, 1 row affected (0.11 sec)
```

```
mysql> insert into employee values(103,'mansi','salesman','2009-12-03',12,4321.32);

Query OK, 1 row affected (0.06 sec)
```

```
mysql> insert into employee values(105,'sachin','accountant','2004-05-23',09,2221.32);

Query OK, 1 row affected (0.08 sec)
```

```
mysql> insert into employee values(107,'apurva','salesman','2005-09-12',03,3456.75);

Query OK, 1 row affected (0.06 sec)
```

```
mysql> select * from employee;
+-----+--------+------------+------------+------+---------+
| eno | ename  | job        | hiredate   | dept | salary  |
+-----+--------+------------+------------+------+---------+
| 101 | Vijay  | manager    | 2001-04-24 |   20 | 2345.43 |
| 103 | mansi  | salesman   | 2009-12-03 |   12 | 4321.32 |
| 105 | sachin | accountant | 2004-05-23 |    9 | 2221.32 |
| 107 | apurva | salesman   | 2005-09-12 |    3 | 3456.75 |
| 212 | rahul  | clerk      | 2004-02-22 |   10 | 1225.33 |
+-----+--------+------------+------------+------+---------+
5 rows in set (0.00 sec)
```

SELECT command

Used to select a particular column

```
mysql> select ename,job from employee where eno=107;
+--------+----------+
| ename  | job      |
+--------+----------+
| apurva | salesman |
+--------+----------+
1 row in set (0.03 sec)
```

- **UPDATE command**

Update record job=accountant where name is mansi

```
mysql> update employee set job='Accountant' where ename='mansi';
Query OK, 1 row affected (0.06 sec)
Rows matched: 1  Changed: 1  Warnings: 0
mysql> select * from employee;
+-----+--------+------------+------------+------+---------+
| eno | ename  | job        | hiredate   | dept | salary  |
+-----+--------+------------+------------+------+---------+
| 101 | Vijay  | manager    | 2001-04-24 |   20 | 2345.43 |
| 103 | mansi  | Accountant | 2009-12-03 |   12 | 4321.32 |
| 105 | sachin | accountant | 2004-05-23 |    9 | 2221.32 |
| 107 | apurva | salesman   | 2005-09-12 |    3 | 3456.75 |
| 212 | rahul  | clerk      | 2004-02-22 |   10 | 1225.33 |
```


5 rows in set (0.00 sec)

DELETE from employee Delete record where eno=103

mysql> delete from employee where eno=103;

Query OK, 1 row affected (0.08 sec)

mysql> select * from employee;

```
+-----+--------+------------+------------+------+---------+
| eno | ename  | job        | hiredate   | dept | salary  |
+-----+--------+------------+------------+------+---------+
| 101 | Vijay  | manager    | 2001-04-24 |   20 | 2345.43 |
| 105 | sachin | accountant | 2004-05-23 |    9 | 2221.32 |
| 107 | apurva | salesman   | 2005-09-12 |    3 | 3456.75 |
| 212 | rahul  | clerk      | 2004-02-22 |   10 | 1225.33 |
+-----+--------+------------+------------+------+---------+
```

4 rows in set (0.00 sec)

- **SET OPERATORS**

CREATE two tables

1.Graduates

2.Managers

mysql> create table graduates(gno int,name varchar(20),age int);

Query OK, 0 rows affected (0.11 sec)

mysql> insert into graduates values(123,'sachin',37);

Query OK, 1 row affected (0.11 sec)

```
mysql> insert into graduates values(101,'saket',39);

Query OK, 1 row affected (0.08 sec)

mysql> insert into graduates values(105,'rahul',35);

Query OK, 1 row affected (0.08 sec)

mysql> create table managers(mno int,name varchar(20),age int);

Query OK, 0 rows affected (0.23 sec)

mysql> insert into managers values(125,'Yuvraj',40);

Query OK, 1 row affected (0.06 sec)

mysql> insert into managers values(109,'vijay',39);

Query OK, 1 row affected (0.08 sec)

mysql> insert into managers values(113,'Rahul',35);

Query OK, 1 row affected (0.08 sec)
 mysql> select * from graduates;
 +------+--------+------+
 | gno  | name   | age  |
 |      |        |      |
 |  123 | sachin |   37 |
 |  101 | saket  |   39 |
 |  105 | rahul  |   35 |
 +------+--------+------+
 3 rows in set (0.00 sec)
```

```
mysql> select * from managers;
+------+--------+------+
| mno  | name   | age  |
+------+--------+------+
|  125 | Yuvraj |   40 |
|  109 | vijay  |   39 |
|  113 | Rahul  |   35 |
+------+--------+------+
3 rows in set (0.00 sec)
```

- **UNION operator**

Gives all values including duplicates

```
mysql> select name from graduates UNION select name from managers;
+--------+
| name   |
+--------+
| sachin |
| saket  |
| rahul  |
| Yuvraj |
| vijay  |
+--------+
5 rows in set (0.05 sec)
```

- **UNION ALL operator**

Gives all values including duplicates

mysql> select name from graduates UNION ALL select name from managers;

+--------+

| name |

+--------+

| sachin |

| saket |

| rahul |

| Yuvraj |

| vijay |

| Rahul |

+--------+

6 rows in set (0.00 sec)

- **LIKE operator**

mysql> select name from graduates where name like'_____';

+-------+

| name |

+-------+

| saket |

| rahul |

+-------+

2 rows in set (0.06 sec)

- **NOT LIKE operator**

mysql> select name from graduates where name not like's%';

+-------+

| name |

+-------+

| rahul |

+-------+

1 row in set (0.00 sec)

- **NOT BETWEEN operator**

mysql> select * from managers where mno not between 102 and 110;

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

| mno | name | age |

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

| 125 | Yuvraj | 40 |

| 113 | Rahul | 35 |

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

2 rows in set (0.05 sec)

- **BETWEEN operator**

mysql> select * from managers where mno between 102 and 110;

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

| mno | name | age |

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

| 109 | vijay | 39 |

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

1 row in set (0.00 sec)

- **JOINS**

```
mysql> create table student(rno int,name varchar(15),address varchar(20),age int);

Query OK, 0 rows affected (0.14 sec)

mysql> insert into student values(1,'harsh','delhi',38);

Query OK, 1 row affected (0.05 sec)

mysql> insert into student values(2,'pratik','bihar',18);

Query OK, 1 row affected (0.10 sec)

mysql> insert into student values(3,'priyanka','kolkata',20);

Query OK, 1 row affected (0.08 sec)

mysql> insert into student values(4,'rohit','alipur',25);

Query OK, 1 row affected (0.05 sec)

mysql> insert into student values(5,'dhanraj','ramnagar',22);

Query OK, 1 row affected (0.05 sec)

mysql> create table studentcourse(courseid int,rno int);

Query OK, 0 rows affected (0.09 sec)

mysql> insert into studentcourse values(1,1);

Query OK, 1 row affected (0.05 sec)
```

```
mysql> insert into studentcourse values(2,2);
Query OK, 1 row affected (0.02 sec)

mysql> insert into studentcourse values(3,3);
Query OK, 1 row affected (0.05 sec)

mysql> insert into studentcourse values(4,4);
Query OK, 1 row affected (0.11 sec)

mysql> insert into studentcourse values(5,5);
Query OK, 1 row affected (0.06 sec)

mysql> select * from student;
+------+----------+----------+------+
| rno  | name     | address  | age  |
+------+----------+----------+------+
|    1 | harsh    | delhi    |   38 |
|    2 | pratik   | bihar    |   18 |
|    3 | priyanka | kolkata  |   20 |
|    4 | rohit    | alipur   |   25 |
|    5 | dhanraj  | ramnagar |   22 |
+------+----------+----------+------+
5 rows in set (0.00 sec)

mysql> select * from studentcourse;
+----------+------+
| courseid | rno  |
+----------+------+
```

```
|       1 |    1 |
|       2 |    2 |
|       3 |    3 |
|       4 |    4 |
|       5 |    5 |
+----------+------+
5 rows in set (0.00 sec)
```

- **INNER JOIN**

```
mysql> select studentcourse.courseid,
student.name,student.age from student
INNER JOIN  studentcourse
ON student.rno=studentcourse.rno;

+----------+----------+------+
| courseid | name     | age  |
+----------+----------+------+
|       1 | harsh    |   38 |
|       2 | pratik   |   18 |
|       3 | priyanka |   20 |
|       4 | rohit    |   25 |
|       5 | dhanraj  |   22 |
+----------+----------+------+
5 rows in set (0.00 sec)
```

- **LEFT JOIN**

mysql> select student.name,studentcourse.courseid from student LEFT JOIN studentcourse ON studentcourse.rno=student.rno;

```
+----------+----------+
| name     | courseid |
+----------+----------+
| harsh    |        1 |
| pratik   |        2 |
| priyanka |        3 |
| rohit    |        4 |
| dhanraj  |        5 |
+----------+----------+
5 rows in set (0.00 sec)
```

- **RIGHT JOIN**

mysql> select student.name,studentcourse.courseid from student RIGHT JOIN studentcourse ON studentcourse.rno=student.rno;

```
+----------+----------+
| name     | courseid |
+----------+----------+
| harsh    |        1 |
| pratik   |        2 |
| priyanka |        3 |
| rohit    |        4 |
| dhanraj  |        5 |
```

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

5 rows in set (0.00 sec)