

Problem Statement :- Design at least 10 SQL queries for suitable database application using SQL DML statments:Insert,Update,Delete with operators,functions and set.

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```
mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.00 sec)
```

```
mysql> create database Library;
Query OK, 1 row affected (0.18 sec)
```

```
mysql> use Library;
Database changed
mysql> show databases;
+-----+
| Database |
+-----+
| Library |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.00 sec)
```

```
mysql> Create table Books(Bookid integer (10),Author varchar(15),BName
varchar(15),Price float(6), Availablity varchar(10));
Query OK, 0 rows affected, 1 warning (1.05 sec)
```

```
mysql> desc Books;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Bookid | int | YES | | NULL | |
| Author | varchar(15) | YES | | NULL | |
| BName | varchar(15) | YES | | NULL | |
| Price | float | YES | | NULL | |
| Availablity | varchar(10) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

```
mysql> INSERT INTO Books(Bookid,Author, BName,Price ,Availablity)
VALUES((50805,'Mr.ajay','Letusc',520,'yes'));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near '' at
line 1
mysql> INSERT INTO Books(Bookid,Author, BName,Price ,Availablity)
VALUES(66235,'Mrs.sujata','os',625,'yes');
Query OK, 1 row affected (0.08 sec)
```

```
mysql> INSERT INTO Books(Bookid,Author, BName,Price ,Availability)
VALUES(63254,'Mrs.shilpa','java',900,'yes');
Query OK, 1 row affected (0.12 sec)
```

```
mysql> INSERT INTO Books(Bookid,Author, BName,Price ,Availability)
VALUES(66256,'Mr.sai','software',863,'yes');
Query OK, 1 row affected (0.10 sec)
```

```
mysql> INSERT INTO Books(Bookid,Author, BName,Price ,Availability)
VALUES(59235,'Mrs.diksha','cph',540,'yes');
Query OK, 1 row affected (0.08 sec)
```

```
mysql> select * from Books;
+-----+-----+-----+-----+-----+
| Bookid | Author   | BName   | Price | Availability |
+-----+-----+-----+-----+-----+
| 66235  | Mrs.sujata | os      | 625   | yes          |
| 63254  | Mrs.shilpa | java    | 900   | yes          |
| 66256  | Mr.sai     | software | 863   | yes          |
| 59235  | Mrs.diksha | cph     | 540   | yes          |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> INSERT INTO Books(Bookid,Author, BName,Price,Availability)
VALUES((50805,'Mr.ajay','Letusc',520,'yes');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near '' at
line 1
mysql> INSERT INTO
Books(Bookid,Author,BName,Price,Availability)VALUES((50805,'Mr.ajay','Letusc',520
,'yes');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near '' at
line 1
mysql> INSERT INTO Books(Bookid,Author, BName,Price ,Availability)
VALUES(66255,'Asha','Android',655,'yes');
Query OK, 1 row affected (0.12 sec)
```

```
mysql> desc Books;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Bookid     | int           | YES  |     | NULL    |       |
| Author     | varchar(15)   | YES  |     | NULL    |       |
| BName      | varchar(15)   | YES  |     | NULL    |       |
| Price      | float         | YES  |     | NULL    |       |
| Availability | varchar(10)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> select * from Books;
+-----+-----+-----+-----+-----+
| Bookid | Author   | BName   | Price | Availability |
+-----+-----+-----+-----+-----+
| 66235  | Mrs.sujata | os      | 625   | yes          |
| 63254  | Mrs.shilpa | java    | 900   | yes          |
| 66256  | Mr.sai     | software | 863   | yes          |
| 59235  | Mrs.diksha | cph     | 540   | yes          |
| 66255  | Asha      | Android | 655   | yes          |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> Create table Publisher( Publish_id integer (10),Address varchar(15) ,
PName varchar(15));
```

Query OK, 0 rows affected, 1 warning (0.81 sec)

mysql> desc Publisher;

| Field | Type | Null | Key | Default | Extra |
|------------|-------------|------|-----|---------|-------|
| Publish_id | int | YES | | NULL | |
| Address | varchar(15) | YES | | NULL | |
| PName | varchar(15) | YES | | NULL | |

3 rows in set (0.00 sec)

mysql> INSERT INTO Publisher(Publish_id,Address, PName)
VALUES(5628,'Pune','Nirali');

Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Publisher(Publish_id,Address, PName)
VALUES(5642,'Nashik','TEchmax');

Query OK, 1 row affected (0.11 sec)

mysql> INSERT INTO Publisher(Publish_id,Address, PName)
VALUES(8564,'Mumbai','TEchknowledge');

Query OK, 1 row affected (0.27 sec)

mysql> INSERT INTO Publisher(Publish_id,Address, PName)
VALUES(8964,'Nagpur','TEchneo');

Query OK, 1 row affected (0.13 sec)

mysql> INSERT INTO Publisher(Publish_id,Address, PName)
VALUES(6345,'Aurangabaad','Navneet');

Query OK, 1 row affected (0.11 sec)

mysql> select * from Publisher;

| Publish_id | Address | PName |
|------------|-------------|---------------|
| 5628 | Pune | Nirali |
| 5642 | Nashik | TEchmax |
| 8564 | Mumbai | TEchknowledge |
| 8964 | Nagpur | TEchneo |
| 6345 | Aurangabaad | Navneet |

5 rows in set (0.00 sec)

mysql> Create table Members(Mid integer (10),M_Info varchar(15) , M_Type
varchar(15) ,Address varchar(20), Attr_Name varchar(20), MExp_Date date);

Query OK, 0 rows affected, 1 warning (0.57 sec)

mysql> desc Members;

| Field | Type | Null | Key | Default | Extra |
|-----------|-------------|------|-----|---------|-------|
| Mid | int | YES | | NULL | |
| M_Info | varchar(15) | YES | | NULL | |
| M_Type | varchar(15) | YES | | NULL | |
| Address | varchar(20) | YES | | NULL | |
| Attr_Name | varchar(20) | YES | | NULL | |
| MExp_Date | date | YES | | NULL | |

6 rows in set (0.00 sec)

mysql> INSERT INTO Members(Mid,M_Info,M_Type,Address,Attr_Name, MExp_Date)
VALUES(23,'Bhushan','student','Gondia','ABC','2000-09-27');

Query OK, 1 row affected (0.09 sec)

```
mysql> INSERT INTO Members(Mid,M_Info,M_Type,Address,Attr_Name, MExp_Date)
VALUES(82,'Asha','student','Pune','XYZ','2001-12-28');
Query OK, 1 row affected (0.12 sec)
```

```
mysql> INSERT INTO Members(Mid,M_Info,M_Type,Address,Attr_Name, MExp_Date)
VALUES(45,'Sayaji','student','Jalna','PQR','1999-5-2');
Query OK, 1 row affected (0.11 sec)
```

```
mysql> INSERT INTO Members(Mid,M_Info,M_Type,Address,Attr_Name, MExp_Date)
VALUES(23,'Nikhil','student','Nashik','DEF','1999-12-9');
Query OK, 1 row affected (0.11 sec)
```

```
mysql> INSERT INTO Members(Mid,M_Info,M_Type,Address,Attr_Name, MExp_Date)
VALUES(56,'Pravin','student','Nashik','LMN','2001-6-1');
Query OK, 1 row affected (0.14 sec)
```

```
mysql> select *from Members;
+-----+-----+-----+-----+-----+-----+
| Mid | M_Info | M_Type | Address | Attr_Name | MExp_Date |
+-----+-----+-----+-----+-----+-----+
| 23 | Bhushan | student | Gondia | ABC | 2000-09-27 |
| 82 | Asha | student | Pune | XYZ | 2001-12-28 |
| 45 | Sayaji | student | Jalna | PQR | 1999-05-02 |
| 23 | Nikhil | student | Nashik | DEF | 1999-12-09 |
| 56 | Pravin | student | Nashik | LMN | 2001-06-01 |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> UPDATE Books SET BName = 'javascript' WHERE Bookid =59235;
Query OK, 1 row affected (0.14 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select * from Books;
+-----+-----+-----+-----+-----+-----+
| Bookid | Author | BName | Price | Availablity |
+-----+-----+-----+-----+-----+-----+
| 66235 | Mrs.sujata | os | 625 | yes |
| 63254 | Mrs.shilpa | java | 900 | yes |
| 66256 | Mr.sai | software | 863 | yes |
| 59235 | Mrs.diksha | javascript | 540 | yes |
| 66255 | Asha | Android | 655 | yes |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> SELECT SUM(Price) FROM Books;
+-----+
| SUM(Price) |
+-----+
| 3583 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT SUM(Price) FROM Books;
+-----+
| SUM(Price) |
+-----+
| 3583 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT MAX(Price) FROM Books;
+-----+
| MAX(Price) |
+-----+
```

```
+-----+
|      900 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT MIN(Price) FROM Books;
+-----+
| MIN(Price) |
+-----+
|      540 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT AVG(Price) FROM Books;
+-----+
| AVG(Price) |
+-----+
|      716.6 |
+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM Members WHERE Address='Pune';
+-----+-----+-----+-----+-----+-----+
| Mid | M_Info | M_Type | Address | Attr_Name | MExp_Date |
+-----+-----+-----+-----+-----+-----+
| 82 | Asha | student | Pune | XYZ | 2001-12-28 |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> SELECT * FROM Books WHERE Price>500;
+-----+-----+-----+-----+-----+-----+
| Bookid | Author | BName | Price | Availablity |
+-----+-----+-----+-----+-----+-----+
| 66235 | Mrs.sujata | os | 625 | yes |
| 63254 | Mrs.shilpa | java | 900 | yes |
| 66256 | Mr.sai | software | 863 | yes |
| 59235 | Mrs.diksha | javascript | 540 | yes |
| 66255 | Asha | Android | 655 | yes |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM Books WHERE Price<500;
Empty set (0.00 sec)
```

```
mysql> SELECT * FROM Books WHERE Price<700;
+-----+-----+-----+-----+-----+-----+
| Bookid | Author | BName | Price | Availablity |
+-----+-----+-----+-----+-----+-----+
| 66235 | Mrs.sujata | os | 625 | yes |
| 59235 | Mrs.diksha | javascript | 540 | yes |
| 66255 | Asha | Android | 655 | yes |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> SELECT * FROM EMPLOYEE WHERE SALARY<>3100;
ERROR 1146 (42S02): Table 'Library.EMPLOYEE' doesn't exist
mysql> SELECT * FROM Books WHERE Price<>700;
+-----+-----+-----+-----+-----+-----+
| Bookid | Author | BName | Price | Availablity |
+-----+-----+-----+-----+-----+-----+
| 66235 | Mrs.sujata | os | 625 | yes |
| 63254 | Mrs.shilpa | java | 900 | yes |
| 66256 | Mr.sai | software | 863 | yes |
+-----+-----+-----+-----+-----+-----+
```

| | | | | |
|-------|------------|------------|-----|-----|
| 59235 | Mrs.diksha | javascript | 540 | yes |
| 66255 | Asha | Android | 655 | yes |

5 rows in set (0.00 sec)

```
mysql> SELECT * FROM Publisher WHERE PName LIKE 'T%';
```

| Publish_id | Address | PName |
|------------|---------|---------------|
| 5642 | Nashik | TEchmax |
| 8564 | Mumbai | TEchknowledge |
| 8964 | Nagpur | TEchneo |

3 rows in set (0.00 sec)

```
mysql> SELECT * FROM Publisher WHERE PName LIKE '_____';
```

Empty set (0.00 sec)

```
mysql> SELECT * FROM Publisher WHERE PName LIKE '____ax';
```

Empty set (0.00 sec)

```
mysql> SELECT * FROM Publisher WHERE PName LIKE '_ax';
```

Empty set (0.00 sec)

```
mysql> SELECT * FROM Publisher WHERE PName LIKE '_ax';
```

Empty set (0.00 sec)

```
mysql> SELECT * FROM Publisher WHERE PName LIKE '_____';
```

Empty set (0.01 sec)

```
mysql> SELECT * FROM Publisher WHERE PName LIKE '%x';
```

| Publish_id | Address | PName |
|------------|---------|---------|
| 5642 | Nashik | TEchmax |

1 row in set (0.00 sec)

```
mysql> SELECT * FROM Books WHERE Price BETWEEN 600 AND 900;
```

| Bookid | Author | BName | Price | Availablity |
|--------|------------|----------|-------|-------------|
| 66235 | Mrs.sujata | os | 625 | yes |
| 63254 | Mrs.shilpa | java | 900 | yes |
| 66256 | Mr.sai | software | 863 | yes |
| 66255 | Asha | Android | 655 | yes |

4 rows in set (0.00 sec)

```
mysql> SELECT * FROM Books WHERE Price IN(625,800);
```

| Bookid | Author | BName | Price | Availablity |
|--------|------------|-------|-------|-------------|
| 66235 | Mrs.sujata | os | 625 | yes |

1 row in set (0.00 sec)

```
mysql> SELECT M_Type,M_Info AS Member_Name FROM Members;
```

| M_Type | Member_Name |
|---------|-------------|
| student | Bhushan |
| student | Asha |

| | |
|---------|--------|
| student | Sayaji |
| student | Nikhil |
| student | Pravin |

5 rows in set (0.00 sec)

```
mysql> SELECT DISTINCT(M_Type) FROM Members;
```

| |
|---------|
| M_Type |
| student |

1 row in set (0.00 sec)

```
mysql> SELECT Author,SUM(Price) From Books GROUP BY Author;
```

| Author | SUM(Price) |
|------------|------------|
| Mrs.sujata | 625 |
| Mrs.shilpa | 900 |
| Mr.sai | 863 |
| Mrs.diksha | 540 |
| Asha | 655 |

5 rows in set (0.00 sec)

```
mysql> SELECT BName,SUM(Price) From Books GROUP BY BName;
```

| BName | SUM(Price) |
|------------|------------|
| os | 625 |
| java | 900 |
| software | 863 |
| javascript | 540 |
| Android | 655 |

5 rows in set (0.00 sec)

```
mysql> SELECT BName,MAX(Price) From Books GROUP BY BName;
```

| BName | MAX(Price) |
|------------|------------|
| os | 625 |
| java | 900 |
| software | 863 |
| javascript | 540 |
| Android | 655 |

5 rows in set (0.00 sec)

```
mysql> SELECT BName,MIN(Price) From Books GROUP BY BName HAVING BName
IN('os','java');
```

| BName | MIN(Price) |
|-------|------------|
| os | 625 |
| java | 900 |

2 rows in set (0.00 sec)

```
mysql> SELECT Address FROM Publisher ORDER BY Address ASC;;
```

| |
|--|
| |
|--|

```
| Address |
+-----+
| Aurangabaad |
| Mumbai |
| Nagpur |
| Nashik |
| Pune |
+-----+
5 rows in set (0.00 sec)
```

ERROR:
No query specified

```
mysql> SELECT Address FROM Publisher ORDER BY Address ASC;
+-----+
| Address |
+-----+
| Aurangabaad |
| Mumbai |
| Nagpur |
| Nashik |
| Pune |
+-----+
5 rows in set (0.00 sec)
```

```
mysql> SELECT Address FROM Publisher ORDER BY Address DESC;
+-----+
| Address |
+-----+
| Pune |
| Nashik |
| Nagpur |
| Mumbai |
| Aurangabaad |
+-----+
5 rows in set (0.00 sec)
```

```
mysql> ALTER TABLE Members ADD Issue Integer(6);
Query OK, 0 rows affected, 1 warning (0.64 sec)
Records: 0 Duplicates: 0 Warnings: 1
```

```
mysql> select * from Members;
+-----+-----+-----+-----+-----+-----+-----+
| Mid | M_Info | M_Type | Address | Attr_Name | MExp_Date | Issue |
+-----+-----+-----+-----+-----+-----+-----+
| 23 | Bhushan | student | Gondia | ABC | 2000-09-27 | NULL |
| 82 | Asha | student | Pune | XYZ | 2001-12-28 | NULL |
| 45 | Sayaji | student | Jalna | PQR | 1999-05-02 | NULL |
| 23 | Nikhil | student | Nashik | DEF | 1999-12-09 | NULL |
| 56 | Pravin | student | Nashik | LMN | 2001-06-01 | NULL |
+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
mysql> UPDATE Members SET Issue = 5;
Query OK, 5 rows affected (0.11 sec)
Rows matched: 5 Changed: 5 Warnings: 0
```

```
mysql> select * from Members;
+-----+-----+-----+-----+-----+-----+-----+
| Mid | M_Info | M_Type | Address | Attr_Name | MExp_Date | Issue |
+-----+-----+-----+-----+-----+-----+-----+
| 23 | Bhushan | student | Gondia | ABC | 2000-09-27 | 5 |
```


| | | | | | | |
|----|--------|---------|--------|-----|------------|---|
| 82 | Asha | student | Pune | XYZ | 2001-12-28 | 5 |
| 45 | Sayaji | student | Jalna | PQR | 1999-05-02 | 5 |
| 23 | Nikhil | student | Nashik | DEF | 1999-12-09 | 5 |
| 56 | Pravin | student | Nashik | LMN | 2001-06-01 | 5 |

5 rows in set (0.00 sec)

```
mysql> UPDATE Members SET Issue = 5;
Query OK, 0 rows affected (0.00 sec)
Rows matched: 5  Changed: 0  Warnings: 0
```

```
mysql> UPDATE Members SET Issue = 3 WHERE Address = 'Nashik';
Query OK, 2 rows affected (0.14 sec)
Rows matched: 2  Changed: 2  Warnings: 0
```

```
mysql> select * from Members;
```

| Mid | M_Info | M_Type | Address | Attr_Name | MExp_Date | Issue |
|-----|---------|---------|---------|-----------|------------|-------|
| 23 | Bhushan | student | Gondia | ABC | 2000-09-27 | 5 |
| 82 | Asha | student | Pune | XYZ | 2001-12-28 | 5 |
| 45 | Sayaji | student | Jalna | PQR | 1999-05-02 | 5 |
| 23 | Nikhil | student | Nashik | DEF | 1999-12-09 | 3 |
| 56 | Pravin | student | Nashik | LMN | 2001-06-01 | 3 |

5 rows in set (0.00 sec)

```
mysql> DELETE FROM Books WHERE Author='Mrs.shilpa';
Query OK, 1 row affected (0.16 sec)
```

```
mysql> select * from Books;
```

| Bookid | Author | BName | Price | Availability |
|--------|------------|------------|-------|--------------|
| 66235 | Mrs.sujata | os | 625 | yes |
| 66256 | Mr.sai | software | 863 | yes |
| 59235 | Mrs.diksha | javascript | 540 | yes |
| 66255 | Asha | Android | 655 | yes |

4 rows in set (0.00 sec)

```
mysql> select * from Members;
```

| Mid | M_Info | M_Type | Address | Attr_Name | MExp_Date | Issue |
|-----|---------|---------|---------|-----------|------------|-------|
| 23 | Bhushan | student | Gondia | ABC | 2000-09-27 | 5 |
| 82 | Asha | student | Pune | XYZ | 2001-12-28 | 5 |
| 45 | Sayaji | student | Jalna | PQR | 1999-05-02 | 5 |
| 23 | Nikhil | student | Nashik | DEF | 1999-12-09 | 3 |
| 56 | Pravin | student | Nashik | LMN | 2001-06-01 | 3 |

5 rows in set (0.00 sec)

```
mysql> Create table Student(Mid integer(10),Sname varchar(15),prn integer(15));
Query OK, 0 rows affected, 2 warnings (0.56 sec)
```

```
mysql> desc Student;
```

| Field | Type | Null | Key | Default | Extra |
|-------|-------------|------|-----|---------|-------|
| Mid | int | YES | | NULL | |
| Sname | varchar(15) | YES | | NULL | |

| prn | int | YES | NULL |
|-----|-----|-----|------|
| | | | |

3 rows in set (0.00 sec)

```
mysql> INSERT INTO Books(Mid,Sname,prn)VALUES((12345,'Asha',457558);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near '' at
line 1
```

```
mysql> INSERT INTO Student(Mid,Sname,prn)VALUES(12345,'Asha',457558);
Query OK, 1 row affected (0.12 sec)
```

```
mysql> INSERT INTO Student(Mid,Sname,prn)VALUES(54321,'Bhushan',8080562);
Query OK, 1 row affected (0.15 sec)
```

```
mysql> INSERT INTO Student(Mid,Sname,prn)VALUES(987654,'Sayaji',52455);
Query OK, 1 row affected (0.14 sec)
```

```
mysql> INSERT INTO Student(Mid,Sname,prn)VALUES(94554,'Nikhil',83083);
Query OK, 1 row affected (0.11 sec)
```

```
mysql> select * from Student;
+-----+-----+-----+
| Mid    | Sname  | prn    |
+-----+-----+-----+
| 12345  | Asha   | 457558 |
| 54321  | Bhushan | 8080562 |
| 987654 | Sayaji | 52455  |
| 94554  | Nikhil | 83083  |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> SELECT Mid FROM Members UNION SELECT Mid FROM Student;
+-----+
| Mid    |
+-----+
| 23     |
| 82     |
| 45     |
| 56     |
| 12345  |
| 54321  |
| 987654 |
| 94554  |
+-----+
8 rows in set (0.00 sec)
```