

Date:

SQL

1. Consider the following table **SHOP**. Write SQL commands for the questions (i) to (v).

Item_No	Item_Name	Price	Qty	Total
1021	Hamam	24	2	48
987	Colgate	10	2	10
3623	Surf	52	1	52
277	Shampoo	2	5	10
4855	Face wash	57	1	57

- To display all the items whose Price is greater than 50.
- To increase the Total of Item_No 987 as 20 (Price*Qty).
- To list all the Item_Name and Qty in ascending order of Item_No whose Qty is less than 3.
- To add an extra column Discount which accepts decimal numbers.
- To delete the column(s) whose quantity is 1.

OUTPUT:

```
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Your MySQL connection id is 12
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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> CREATE DATABASE Class12;
Query OK, 1 row affected (0.00 sec)

mysql> USE Class12;
Database changed
```

```
mysql> CREATE TABLE SHOP
-> (Item_No INT,Item_Name CHAR(20),Price INT,Qty INT,Total INT);
Query OK, 0 rows affected (0.01 sec)

mysql> DESC SHOP;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Item_No | int(11) | YES | | NULL | |
| Item_Name | char(20) | YES | | NULL | |
| Price | int(11) | YES | | NULL | |
| Qty | int(11) | YES | | NULL | |
| Total | int(11) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

Date:

```
mysql> INSERT INTO SHOP VALUES
-> (1021, 'Hamam', 24, 2, 48),
-> (987, 'Colgate', 10, 2, 10),
-> (3623, 'Surf', 52, 1, 52),
-> (277, 'Shampoo', 2, 5, 10),
-> (4855, 'Face wash', 57, 1, 57);
Query OK, 5 rows affected (0.00 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT * FROM SHOP;
```

Item_No	Item_Name	Price	Qty	Total
1021	Hamam	24	2	48
987	Colgate	10	2	10
3623	Surf	52	1	52
277	Shampoo	2	5	10
4855	Face wash	57	1	57

5 rows in set (0.00 sec)

- i. To display all the items whose Price is greater than 50.

```
mysql> SELECT * FROM SHOP WHERE Price>50;
```

Item_No	Item_Name	Price	Qty	Total
3623	Surf	52	1	52
4855	Face wash	57	1	57

2 rows in set (0.00 sec)

- ii. To increase the Total of Item_No 987 as 20 (Price*Qty).

```
mysql> UPDATE SHOP SET Total=Price*Qty WHERE Item_No=987;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> SELECT * FROM SHOP;
```

Item_No	Item_Name	Price	Qty	Total
1021	Hamam	24	2	48
987	Colgate	10	2	20
3623	Surf	52	1	52
277	Shampoo	2	5	10
4855	Face wash	57	1	57

5 rows in set (0.00 sec)

- iii. To list all the Item_Name and Qty in ascending order of Item_No whose Qty is less than 3.

```
mysql> SELECT Item_Name,Qty FROM SHOP WHERE Qty<3 ORDER BY Item_No ASC;
```

Item_Name	Qty
Colgate	2
Hamam	2
Surf	1
Face wash	1

4 rows in set (0.00 sec)

Date:

iv. To add an extra column Discount which accepts decimal numbers.

```
mysql> ALTER TABLE SHOP ADD Discount FLOAT;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> DESC SHOP;
```

Field	Type	Null	Key	Default	Extra
Item_No	int(11)	YES		NULL	
Item_Name	char(20)	YES		NULL	
Price	int(11)	YES		NULL	
Qty	int(11)	YES		NULL	
Total	int(11)	YES		NULL	
Discount	float	YES		NULL	

```
6 rows in set (0.00 sec)
```

v. To delete the column(s) whose quantity is 1.

```
mysql> DELETE FROM SHOP WHERE Qty=1;
Query OK, 2 rows affected (0.00 sec)

mysql> SELECT * FROM SHOP;
```

Item_No	Item_Name	Price	Qty	Total	Discount
1021	Hamam	24	2	48	NULL
987	Colgate	10	2	20	NULL
277	Shampoo	2	5	10	NULL

```
3 rows in set (0.00 sec)
```

Date:

2. Consider the following table **EMPLOYEE**. Write SQL commands for the questions (i) to (v).

Eid	Ename	Qual	Gender	Salary
901	Kumar	BE	M	12000
201	Louie	MCA	M	30500
110	Varshini	BTech	F	13025
718	Drishya	MCA	F	11600
120	Nissi Ann	MCA	F	19000

- To display Eid and Ename whose Qual is MCA.
- To list the employees in descending order of their Salary.
- To display the count of the employees according to their Gender.
- To find out the minimum Salary and maximum Salary of the employees.
- To delete the records whose Salary is above 15000.

OUTPUT:

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

mysql> CREATE DATABASE Class12;
Query OK, 1 row affected (0.00 sec)

mysql> USE Class12;
Database changed
```

```
mysql> CREATE TABLE EMPLOYEE
-> (Eid INT, Ename CHAR(20), Qual CHAR(10), Gender CHAR, Salary INT);
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> DESC EMPLOYEE;
```

Field	Type	Null	Key	Default	Extra
Eid	int(11)	YES		NULL	
Ename	char(20)	YES		NULL	
Qual	char(10)	YES		NULL	
Gender	char(1)	YES		NULL	
Salary	int(11)	YES		NULL	

5 rows in set (0.01 sec)

Date:

```
mysql> INSERT INTO EMPLOYEE VALUES
-> (901,'Kumar','BE','M',12000),
-> (201,'Louie','MCA','M',30500),
-> (110,'Varshini','BTech','F',13025),
-> (718,'Drishya','MCA','F',11600),
-> (120,'Nissi Ann','MCA','F',19000);
Query OK, 5 rows affected (0.00 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT * FROM EMPLOYEE;
```

Eid	Ename	Qual	Gender	Salary
901	Kumar	BE	M	12000
201	Louie	MCA	M	30500
110	Varshini	BTech	F	13025
718	Drishya	MCA	F	11600
120	Nissi Ann	MCA	F	19000

```
5 rows in set (0.00 sec)
```

i. To display Eid and Ename whose Qual is MCA.

```
mysql> SELECT Eid,Ename FROM EMPLOYEE WHERE Qual='MCA';
```

Eid	Ename
201	Louie
718	Drishya
120	Nissi Ann

```
3 rows in set (0.00 sec)
```

ii. To list the employees in descending order of their Salary.

```
mysql> SELECT * FROM EMPLOYEE ORDER BY SALARY DESC;
```

Eid	Ename	Qual	Gender	Salary
201	Louie	MCA	M	30500
120	Nissi Ann	MCA	F	19000
110	Varshini	BTech	F	13025
901	Kumar	BE	M	12000
718	Drishya	MCA	F	11600

```
5 rows in set (0.00 sec)
```

iii. To display the count of the employees according to their Gender.

```
mysql> SELECT COUNT(*),GENDER FROM EMPLOYEE GROUP BY GENDER;
```

COUNT(*)	GENDER
2	M
3	F

```
2 rows in set (0.01 sec)
```

Date:

iv. To find out the minimum Salary and maximum Salary of the employees.

```
mysql> SELECT MIN(Salary) AS 'LOWEST SALARY', MAX(Salary) AS 'HIGHEST SALARY' FROM EMPLOYEE;
+-----+-----+
| LOWEST SALARY | HIGHEST SALARY |
+-----+-----+
|          11600 |          30500 |
+-----+-----+
1 row in set (0.01 sec)
```

v. To delete the records whose Salary is above 15000.

```
mysql> DELETE FROM EMPLOYEE WHERE Salary>15000;
Query OK, 2 rows affected (0.01 sec)

mysql> SELECT * FROM EMPLOYEE;
+-----+-----+-----+-----+-----+
| Eid | Ename   | Qual  | Gender | Salary |
+-----+-----+-----+-----+-----+
| 901 | Kumar   | BE    | M      | 12000  |
| 110 | Varshini | BTech | F      | 13025  |
| 718 | Drishya | MCA   | F      | 11600  |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

Date:

3. Consider the following table **STUDENT**. Write SQL commands for the questions (i) to (v).

Roll_no	Stud_name	Maths	Computer	Physics	Chemistry
1201	Hari	48	89	79	99
1202	Karthik	78	100	89	72
1203	Varun	52	90	93	88
1204	Gokul	69	81	75	96
1205	Vignesh	57	100	100	98

- To increase the Maths mark of all the students by 5.
- To display the Students details whose mark is 100 in Computer.
- To display the Name and Roll Number of the Students whose name starts with letter 'V'.
- To set Roll Number column as Primary Key.
- To delete the records whose Physics marks are below 85.

OUTPUT:

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mysql> CREATE DATABASE Class12;
Query OK, 1 row affected (0.00 sec)

mysql> USE Class12;
Database changed
```

```
mysql> CREATE TABLE STUDENT
-> (Roll_no INT, Stud_name CHAR(20), Maths INT, Computer INT, Physics INT, Chemistry INT);
Query OK, 0 rows affected (0.01 sec)

mysql> DESC STUDENT;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Roll_no    | int(11)   | YES  |     | NULL    |       |
| Stud_name  | char(20)  | YES  |     | NULL    |       |
| Maths      | int(11)   | YES  |     | NULL    |       |
| Computer   | int(11)   | YES  |     | NULL    |       |
| Physics    | int(11)   | YES  |     | NULL    |       |
| Chemistry  | int(11)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

Date:

```
mysql> INSERT INTO STUDENT VALUES
-> (1201,'Hari',48,89,79,99),
-> (1202,'Karthik',78,100,89,72),
-> (1203,'Varun',52,90,93,88),
-> (1204,'Gokul',69,81,75,96),
-> (1205,'Vignesh',57,100,100,98);
Query OK, 5 rows affected (0.00 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
mysql> SELECT * FROM STUDENT;
```

Roll_no	Stud_name	Maths	Computer	Physics	Chemistry
1201	Hari	48	89	79	99
1202	Karthik	78	100	89	72
1203	Varun	52	90	93	88
1204	Gokul	69	81	75	96
1205	Vignesh	57	100	100	98

```
5 rows in set (0.00 sec)
```

- i. To increase the Maths mark of all the students by 5.

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

```
mysql> SELECT * FROM STUDENT;
```

Roll_no	Stud_name	Maths	Computer	Physics	Chemistry
1201	Hari	53	89	79	99
1202	Karthik	83	100	89	72
1203	Varun	57	90	93	88
1204	Gokul	74	81	75	96
1205	Vignesh	62	100	100	98

```
5 rows in set (0.00 sec)
```

- ii. To display the Students details whose mark is 100 in Computer.

```
mysql> SELECT * FROM STUDENT WHERE Computer=100;
```

Roll_no	Stud_name	Maths	Computer	Physics	Chemistry
1202	Karthik	83	100	89	72
1205	Vignesh	62	100	100	98

```
2 rows in set (0.01 sec)
```


Date:

- iii. To display the Name and Roll Number of the Students whose name starts with letter 'V'.

```
[mysql> SELECT Stud_name, Roll_no FROM STUDENT WHERE Stud_name LIKE 'V%';
+-----+-----+
| Stud_name | Roll_no |
+-----+-----+
| Varun     | 1203    |
| Vignesh   | 1205    |
+-----+-----+
2 rows in set (0.01 sec)
```

- iv. To set Roll Number column as Primary Key.

```
[mysql> ALTER TABLE STUDENT MODIFY Roll_no INT PRIMARY KEY;
Query OK, 0 rows affected (0.14 sec)
Records: 0 Duplicates: 0 Warnings: 0

[mysql> DESC STUDENT;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Roll_no    | int(11)   | NO   | PRI | NULL    |       |
| Stud_name  | char(20)  | YES  |     | NULL    |       |
| Maths      | int(11)   | YES  |     | NULL    |       |
| Computer   | int(11)   | YES  |     | NULL    |       |
| Physics    | int(11)   | YES  |     | NULL    |       |
| Chemistry  | int(11)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
```

- v. To delete the records whose Physics marks are below 85.

```
[mysql> DELETE FROM STUDENT WHERE Physics<85
-> ;
Query OK, 2 rows affected (0.00 sec)

[mysql> SELECT * FROM STUDENT;
+-----+-----+-----+-----+-----+-----+
| Roll_no | Stud_name | Maths | Computer | Physics | Chemistry |
+-----+-----+-----+-----+-----+-----+
| 1202    | Karthik   | 83    | 100      | 89      | 72        |
| 1203    | Varun     | 57    | 90       | 93      | 88        |
| 1205    | Vignesh   | 62    | 100      | 100     | 98        |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

Date:

4. Consider the following table **COLLEGE**. Write SQL commands for the questions (i) to (v).

ID_No	Name	College	Branch	Roll_No	Age
91	Ramesh	NIT	MECH	8642046	20
72	Jagan	MANIPAL	LAW	8642079	24
64	Kunal	IIT	AEROSPACE	8642011	18
18	Haneefa	IIT	CIVIL	8642054	22
78	Michael	IIT	CSE	8642002	20

- To display all the students studying at IIT under the age of 20.
- To change the Branch of Name 'Kunal' to CSE.
- To display the number of students in IIT, NIT & MANIPAL.
- To display the details in ascending order of Roll Number.
- To delete the records which have Age greater than 20.

OUTPUT:

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

mysql> CREATE DATABASE Class12;
Query OK, 1 row affected (0.00 sec)

mysql> USE Class12;
Database changed
```

```
mysql> CREATE TABLE COLLEGE
-> (ID_No INT, Name CHAR(20), College CHAR(20), Branch CHAR(20), Roll_No INT, Age INT);
Query OK, 0 rows affected (0.01 sec)

mysql> DESC COLLEGE;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| ID_No | int(11) | YES | | NULL | |
| Name | char(20) | YES | | NULL | |
| College | char(20) | YES | | NULL | |
| Branch | char(20) | YES | | NULL | |
| Roll_No | int(11) | YES | | NULL | |
| Age | int(11) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

Date:

```
mysql> INSERT INTO COLLEGE VALUES
-> (91,'Ramesh','NIT','MECH',8642046,20),
-> (72,'Jagan','MANIPAL','LAW',8642079,24),
-> (64,'Kunal','IIT','AEROSPACE',8642011,18),
-> (18,'Haneefa','IIT','CIVIL',8642054,22),
-> (78,'Michael','IIT','CSE',8642002,20);
Query OK, 5 rows affected (0.00 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
mysql> SELECT * FROM COLLEGE;
```

ID_No	Name	College	Branch	Roll_No	Age
91	Ramesh	NIT	MECH	8642046	20
72	Jagan	MANIPAL	LAW	8642079	24
64	Kunal	IIT	AEROSPACE	8642011	18
18	Haneefa	IIT	CIVIL	8642054	22
78	Michael	IIT	CSE	8642002	20

```
5 rows in set (0.00 sec)
```

- i. To display all the students studying at IIT under the age of 20.

```
mysql> SELECT * FROM COLLEGE WHERE College='IIT' and Age<20;
```

ID_No	Name	College	Branch	Roll_No	Age
64	Kunal	IIT	AEROSPACE	8642011	18

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

- ii. To change the Branch of Name 'Kunal' to CSE.

```
mysql> UPDATE COLLEGE SET BRANCH='CSE' WHERE Name='Kunal';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> SELECT * FROM COLLEGE;
```

ID_No	Name	College	Branch	Roll_No	Age
91	Ramesh	NIT	MECH	8642046	20
72	Jagan	MANIPAL	LAW	8642079	24
64	Kunal	IIT	CSE	8642011	18
18	Haneefa	IIT	CIVIL	8642054	22
78	Michael	IIT	CSE	8642002	20

```
5 rows in set (0.00 sec)
```

Date:

- iii. To display the number of students in IIT, NIT & MANIPAL.

```
mysql> SELECT COUNT(*),College FROM COLLEGE GROUP BY College;
+-----+-----+
| COUNT(*) | College |
+-----+-----+
|          1 | NIT     |
|          1 | MANIPAL |
|          3 | IIT     |
+-----+-----+
3 rows in set (0.00 sec)
```

- iv. To display the details in ascending order of Roll Number.

```
mysql> SELECT * FROM COLLEGE ORDER BY Roll_No ASC;
+-----+-----+-----+-----+-----+-----+
| ID_No | Name   | College | Branch | Roll_No | Age |
+-----+-----+-----+-----+-----+-----+
| 78    | Michael | IIT     | CSE    | 8642002 | 20 |
| 64    | Kunal  | IIT     | CSE    | 8642011 | 18 |
| 91    | Ramesh | NIT     | MECH   | 8642046 | 20 |
| 18    | Haneefa | IIT     | CIVIL  | 8642054 | 22 |
| 72    | Jagan  | MANIPAL | LAW    | 8642079 | 24 |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

- v. To delete the records which have Age greater than 20.

```
mysql> DELETE FROM COLLEGE WHERE Age>20;
Query OK, 2 rows affected (0.00 sec)

mysql> SELECT * FROM COLLEGE;
+-----+-----+-----+-----+-----+-----+
| ID_No | Name   | College | Branch | Roll_No | Age |
+-----+-----+-----+-----+-----+-----+
| 91    | Ramesh | NIT     | MECH   | 8642046 | 20 |
| 64    | Kunal  | IIT     | CSE    | 8642011 | 18 |
| 78    | Michael | IIT     | CSE    | 8642002 | 20 |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```