1:

```
 1  // Task No 1
 2  mysql> CREATE DATABASE person;
 3  Query OK, 1 row affected (0.01 sec)
 4
 5  mysql> USE person;
 6  Database changed
 7
 8  // Creation of Table Users
 9
10  mysql> CREATE TABLE Users(
11      -> user_id INT PRIMARY KEY,
12      -> username VARCHAR(30),
13      -> password VARCHAR(100),
14      -> email VARCHAR(30),
15      -> salary INT
16      -> );
17  Query OK, 0 rows affected (0.03 sec)
18
19  mysql> DESCRIBE Users
20      -> ;
21  +----------+--------------+------+-----+---------+-------+
22  | Field    | Type         | Null | Key | Default | Extra |
23  +----------+--------------+------+-----+---------+-------+
24  | user_id  | int          | NO   | PRI | NULL    |       |
25  | username | varchar(30)  | YES  |     | NULL    |       |
26  | password | varchar(100) | YES  |     | NULL    |       |
27  | email    | varchar(30)  | YES  |     | NULL    |       |
28  | salary   | int          | YES  |     | NULL    |       |
29  +----------+--------------+------+-----+---------+-------+
30  5 rows in set (0.00 sec)
31
32  // Creation of Summary Table
33  mysql> CREATE TABLE Summary(
34      -> id INT PRIMARY KEY,
35      -> total_users INT,
36      -> Yahoo INT,
37      -> Hotmail INT,
38      -> Gmail INT
39      -> );
40  Query OK, 0 rows affected (0.02 sec)
41
42  mysql> DESCRIBE Summary;
43  +-------------+------+------+-----+---------+-------+
44  | Field       | Type | Null | Key | Default | Extra |
45  +-------------+------+------+-----+---------+-------+
46  | id          | int  | NO   | PRI | NULL    |       |
47  | total_users | int  | YES  |     | NULL    |       |
48  | Yahoo       | int  | YES  |     | NULL    |       |
49  | Hotmail     | int  | YES  |     | NULL    |       |
50  | Gmail       | int  | YES  |     | NULL    |       |
51  +-------------+------+------+-----+---------+-------+
52  5 rows in set (0.00 sec)
53
54
```

2:

```
 1  // Task No 2
 2  mysql> CREATE PROCEDURE insert_in_summary(IN id INT, IN total_user INT, IN Yahoo INT, IN Hotmail INT, IN Gmail INT)
 3      -> BEGIN
 4      -> INSERT INTO Summary VALUES (id, total_user, Yahoo, Hotmail, Gmail);
 5      -> END $$
 6  Query OK, 0 rows affected (0.01 sec)
 7
 8  mysql> DELIMITER ;
 9
10  mysql> CALL insert_in_summary(1, 2, 1, 0, 1);
11
12  Query OK, 1 row affected (0.01 sec)
13
14  mysql> SELECT * FROM Summary;
15  +----+-------------+-------+---------+-------+
16  | id | total_users | Yahoo | Hotmail | Gmail |
17  +----+-------------+-------+---------+-------+
18  |  1 |           2 |     1 |       0 |     1 |
19  +----+-------------+-------+---------+-------+
20  1 row in set (0.00 sec)
21
```

3:

```
 1  // Task No 3
 2
 3  mysql> DELIMITER $$
 4
 5  // Creation of PROCEDURE
 6
 7  mysql> CREATE PROCEDURE insert_in_users(IN user_id INT, IN username VARCHAR(30), IN password VARCHAR(100), IN email VARCHAR(30), IN salary INT)
 8      -> BEGIN
 9      -> INSERT INTO Users VALUES (user_id, username, password, email, salary);
10      -> END $$
11  Query OK, 0 rows affected (0.00 sec)
12
13  mysql> DELIMITER ;
14
15  // 1st Insertion Using the PROCEDURE
16
17  mysql> CALL insert_in_users(1, 'abc123', 'def321', 'abc123@yahoo.com', 3000);
18  Query OK, 1 row affected (0.01 sec)
19
20
21  // 2nd Insertion Using the PROCEDURE
22
23  mysql> CALL insert_in_users(2, 'xyz789', 'asd123', 'xyz789@gmail.comm', 3000);
24  Query OK, 1 row affected (0.01 sec)
25
26
27  mysql> SELECT * FROM Users;
28  +---------+----------+----------+-------------------+--------+
29  | user_id | username | password | email             | salary |
30  +---------+----------+----------+-------------------+--------+
31  |       1 | abc123   | def321   | abc123@yahoo.com  |   3000 |
32  |       2 | xyz789   | asd123   | xyz789@gmail.comm |   3000 |
33  +---------+----------+----------+-------------------+--------+
34  2 rows in set (0.00 sec)
```

4:

```
1   // Task No 4
2   mysql> DELIMITER $$
3   mysql> CREATE PROCEDURE output_users()
4       -> BEGIN
5       -> SELECT * FROM Users;
6       -> END $$
7   Query OK, 0 rows affected (0.01 sec)
8
9
10
11  mysql> DELIMITER ;
12
13  mysql> CALL output_users();
14  +---------+----------+----------+-------------------+--------+
15  | user_id | username | password | email             | salary |
16  +---------+----------+----------+-------------------+--------+
17  |       1 | abc123   | def321   | abc123@yahoo.com  |   3000 |
18  |       2 | xyz789   | asd123   | xyz789@gmail.comm |   3000 |
19  +---------+----------+----------+-------------------+--------+
20  2 rows in set (0.00 sec)
21
22  Query OK, 0 rows affected (0.00 sec)
```

5:

```
1   // Task No 5
2   mysql> DELIMITER $$
3   mysql> CREATE PROCEDURE user_avg_wage()
4       -> BEGIN
5       -> SELECT AVG(salary) FROM Users;
6       -> END $$
7   Query OK, 0 rows affected (0.01 sec)
8
9   mysql> DELIMITER ;
10
11  mysql> CALL user_avg_wage()
12      -> ;
13  +-------------+
14  | AVG(salary) |
15  +-------------+
16  |   3000.0000 |
17  +-------------+
18  1 row in set (0.00 sec)
19
20  Query OK, 0 rows affected (0.00 sec)
```

6:

```
// Task No 6

mysql> DELIMITER $$
mysql> CREATE PROCEDURE minmax()
    -> BEGIN
    -> SELECT MIN(salary), MAX(salary) FROM Users;
    -> END $$
Query OK, 0 rows affected (0.01 sec)

mysql> DELIMITER ;
mysql> CALL minmax()
    -> ;
+-------------+-------------+
| MIN(salary) | MAX(salary) |
+-------------+-------------+
|        3000 |        3000 |
+-------------+-------------+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

7:

```
 1  // Task No 7
 2  // TRIGGER called after insertion in the Users Table and it will update the Summary table total_users
 3  mysql> CREATE TRIGGER on_insertion AFTER INSERT  ON person.Users FOR EACH ROW BEGIN  UPDATE Summary
 4  SET total_users = total_users + 1 WHERE id = 1;
 5      -> END $$
 6  Query OK, 0 rows affected (0.02 sec)
 7
 8  // Before Insertion
 9  mysql> CALL output_users();
10  +---------+----------+----------+-------------------+--------+
11  | user_id | username | password | email             | salary |
12  +---------+----------+----------+-------------------+--------+
13  |       1 | abc123   | def321   | abc123@yahoo.com  |   3000 |
14  |       2 | xyz789   | asd123   | xyz789@gmail.comm |   3000 |
15  +---------+----------+----------+-------------------+--------+
16  2 rows in set (0.00 sec)
17
18  Query OK, 0 rows affected (0.00 sec)
19
20  mysql> CALL output_users();
21  +---------+----------+----------+-------------------+--------+
22  | user_id | username | password | email             | salary |
23  +---------+----------+----------+-------------------+--------+
24  |       1 | abc123   | def321   | abc123@yahoo.com  |   3000 |
25  |       2 | xyz789   | asd123   | xyz789@gmail.comm |   3000 |
26  |       3 | iu456    | oi4521   | iu456@gmail.com   |   6000 |
27  +---------+----------+----------+-------------------+--------+
28  3 rows in set (0.00 sec)
29
30  Query OK, 0 rows affected (0.00 sec)
31
32  // Total Users Updated
33  mysql> SELECT * FROM Summary;
34  +----+-------------+-------+---------+-------+
35  | id | total_users | Yahoo | Hotmail | Gmail |
36  +----+-------------+-------+---------+-------+
37  |  1 |           3 |     1 |       0 |     1 |
38  +----+-------------+-------+---------+-------+
39  1 row in set (0.00 sec)
40
41  // New User Insertion in Users
42  mysql> CALL insert_in_users(4, 'iu456', 'oi4521', 'iu456@gmail.com', 6000);
43  Query OK, 1 row affected (0.01 sec)
44
45  // Updated Summary Table
46
47  mysql> SELECT * FROM Summary;
48  +----+-------------+-------+---------+-------+
49  | id | total_users | Yahoo | Hotmail | Gmail |
50  +----+-------------+-------+---------+-------+
51  |  1 |           4 |     1 |       0 |     1 |
52  +----+-------------+-------+---------+-------+
53  1 row in set (0.00 sec)
```

8:

```
1   // Task No 8  on_delete trigger
2   mysql> CREATE TRIGGER on_delete AFTER DELETE  ON person.Users FOR EACH ROW BEGIN  UPDATE Summary SET
3       ->  total_users = total_users - 1 WHERE id = 1; END$$
4   Query OK, 0 rows affected (0.00 sec)
5
6   // Before DELETE Summary Table
7
8   mysql> SELECT * FROM Summary;
9   +----+-------------+-------+---------+-------+
10  | id | total_users | Yahoo | Hotmail | Gmail |
11  +----+-------------+-------+---------+-------+
12  |  1 |           4 |     1 |       0 |     1 |
13  +----+-------------+-------+---------+-------+
14  1 row in set (0.00 sec)
15
```

9:

```
1    mysql> DELETE FROM Users WHERE user_id = 4;
2    Query OK, 1 row affected (0.01 sec)
3
4    mysql> SELECT * FROM Summary;
5    +----+-------------+-------+---------+-------+
6    | id | total_users | Yahoo | Hotmail | Gmail |
7    +----+-------------+-------+---------+-------+
8    |  1 |           3 |     1 |       0 |     1 |
9    +----+-------------+-------+---------+-------+
10   1 row in set (0.00 sec)
11
12   mysql>
```