ASSIGNMENT 8.

NAME = AMAN MUNIR MUJAWAR

SIB-16 IT-B

PROBLEM STATEMENT

/*

Write and execute PL/SQL stored procedure and function to perform a suitable task on the database. Demonstrate its use.

*/

```
mysql> CREATE DATABASE PL_SQL;
Query OK, 1 row affected (0.01 sec)

mysql> USE PL_SQL;
Database changed

mysql> CREATE TABLE STUDENT(
    -> STUDENT_ID INT NOT NULL,
    ->     STUDENT_NAME VARCHAR(100) NOT NULL,
    ->     STUDENT_AGE INT DEFAULT 28,
    ->     PRIMARY KEY (STUDENT_ID)
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql> INSERT INTO STUDENT (STUDENT_ID,STUDENT_NAME,STUDENT_AGE)
    -> VALUES
    -> (101,'MANOJ KEDAR',20),
    -> (102,'VIRAT KOHLI',20),
    -> (103,'RAM SHUKLA',21),
    -> (104,'RAJU RASTOGI',19),
    -> (105,'JAMES HOLAND',20);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

```
-- ============================================== GET_ALL_STUDENTS_DATA()
================================================


mysql> DELIMITER $$

mysql> CREATE PROCEDURE get_student()

    -> BEGIN

    -> SELECT * FROM STUDENT;

    -> END $$

Query OK, 0 rows affected (0.01 sec)


mysql> DELIMITER ;

mysql> CALL GET_STUDENT();


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

| STUDENT_ID | STUDENT_NAME | STUDENT_AGE |

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

|        101 | MANOJ KEDAR  |          20 |

|        102 | VIRAT KOHLI  |          20 |

|        103 | RAM SHUKLA   |          21 |

|        104 | RAJU RASTOGI |          19 |

|        105 | JAMES HOLAND |          20 |

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

5 rows in set (0.00 sec)

Query OK, 0 rows affected (0.02 sec)


mysql> ALTER TABLE STUDENT

    -> ADD COLUMN PERSENTAGE DECIMAL(10,2);

Query OK, 0 rows affected (0.03 sec)

Records: 0  Duplicates: 0  Warnings: 0


mysql> UPDATE STUDENT

    -> SET PERSENTAGE = 60

    -> WHERE STUDENT_ID = 101;

Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE STUDENT
    -> SET PERSENTAGE = 70
    -> WHERE STUDENT_ID = 102;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE STUDENT
    -> SET PERSENTAGE = 50
    -> WHERE STUDENT_ID = 103;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE STUDENT
    -> SET PERSENTAGE = 65
    -> WHERE STUDENT_ID = 104;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE STUDENT
    -> SET PERSENTAGE = 60
    -> WHERE STUDENT_ID = 105;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

-- ==================================1.GET_MAX_PERSENT()
=======================================================

mysql> DELIMITER $$
mysql> CREATE PROCEDURE GET_MAX_PERSENT()
    -> BEGIN
    -> SELECT MAX(PERSENTAGE) AS PERSENTAGE FROM STUDENT;
    ->     END $$
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> DELIMITER ;
mysql>
mysql> CALL GET_MAX_PERSENT();



+------------+
| PERSENTAGE |
+------------+
|      70.00 |
+------------+
1 row in set (0.00 sec)
Query OK, 0 rows affected (0.01 sec)


-- ========================================== 2.GET_MIN_PERENT()
=====================================================


mysql> DELIMITER $$
mysql> CREATE PROCEDURE GET_MIN_PERSENT()
    -> BEGIN
    -> SELECT MIN(PERSENTAGE) AS PERSENTAGE FROM STUDENT;
    ->      END $$
Query OK, 0 rows affected (0.01 sec)


mysql> DELIMITER ;
mysql>
mysql> CALL GET_MIN_PERSENT();
+------------+
| PERSENTAGE |
+------------+
|      50.00 |
+------------+
1 row in set (0.00 sec)
Query OK, 0 rows affected (0.04 sec)


-- ============================== 3.GET_AVG_PERSENT()
=====================================================================
```

```
mysql> DELIMITER //
mysql> CREATE PROCEDURE GET_AVERAGE_PERSENT()
    -> BEGIN
    -> SELECT AVG(PERSENTAGE) AS PERSENTAGE FROM STUDENT;
    ->     END //
Query OK, 0 rows affected (0.02 sec)

mysql> DELIMITER ;
mysql> CALL GET_AVERAGE_PERSENT();
+------------+
| PERSENTAGE |
+------------+
|  61.000000 |
+------------+
1 row in set (0.00 sec)
Query OK, 0 rows affected (0.01 sec)

-- ==================================== 4.FIND_STUDENT()
================================================================

mysql> DELIMITER &&
mysql> CREATE PROCEDURE FIND_STUDENT(IN ID INT)  //PASS ARGUMENT AS ID.
    -> BEGIN
    -> SELECT * FROM STUDENT
    ->          WHERE STUDENT_ID = ID;
    -> END &&
Query OK, 0 rows affected (0.01 sec)

mysql> DELIMITER ;
mysql> CALL FIND_STUDENT(101);
+------------+--------------+-------------+------------+
| STUDENT_ID | STUDENT_NAME | STUDENT_AGE | PERSENTAGE |
+------------+--------------+-------------+------------+
|        101 | MANOJ KEDAR  |          20 |      60.00 |
+------------+--------------+-------------+------------+
1 row in set (0.00 sec)
Query OK, 0 rows affected (0.05 sec)
```

```
-- ======================================== 5.DELETE_STUDENT()
============================================================

mysql> DELIMITER &&

mysql> CREATE PROCEDURE DELETE_STUDENT(IN ID INT)

    -> BEGIN

    -> DELETE FROM STUDENT

    ->          WHERE STUDENT_ID = ID;

    ->      END &&

Query OK, 0 rows affected (0.01 sec)


mysql> DELIMITER ;

mysql>

mysql> CALL DELETE_STUDENT(101);

Query OK, 1 row affected (0.01 sec)


mysql> CALL GET_STUDENT();

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

| STUDENT_ID | STUDENT_NAME | STUDENT_AGE | PERSENTAGE |

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

|        102 | VIRAT KOHLI  |          20 |      70.00 |

|        103 | RAM SHUKLA   |          21 |      50.00 |

|        104 | RAJU RASTOGI |          19 |      65.00 |

|        105 | JAMES HOLAND |          20 |      60.00 |

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

4 rows in set (0.00 sec)


Query OK, 0 rows affected (0.04 sec)


mysql> DESC STUDENT;

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

| Field        | Type          | Null | Key | Default | Extra |

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

| STUDENT_ID   | int           | NO   | PRI | NULL    |       |

| STUDENT_NAME | varchar(100)  | NO   |     | NULL    |       |

| STUDENT_AGE  | int           | YES  |     | 28      |       |

| PERSENTAGE   | decimal(10,2) | YES  |     | NULL    |       |

+--------------+---------------+------+-----+---------+-------+
```

```
4 rows in set (0.01 sec)


-- ============================================== INSERT_STUDENT()
=====================================================


mysql> DELIMITER &&

mysql> CREATE PROCEDURE INSERT_STUDENT(IN ID INT,NAME VARCHAR(80),AGE INT,PERSENTAGE
DECIMAL(10,2))

    -> BEGIN

    -> INSERT INTO student(STUDENT_ID,STUDENT_NAME,STUDENT_AGE,PERSENTAGE)

    ->         VALUES(ID,NAME,AGE,PERSENTAGE);

    ->     END &&

Query OK, 0 rows affected (0.01 sec)


mysql> DELIMITER ;

mysql> CALL INSERT_STUDENT(101,'AMAN MUJAWAR',20,80.6);

Query OK, 1 row affected (0.01 sec)


mysql> CALL GET_STUDENT();

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

| STUDENT_ID | STUDENT_NAME | STUDENT_AGE | PERSENTAGE |

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

|        101 | AMAN MUJAWAR |          20 |      80.60 |

|        102 | VIRAT KOHLI  |          20 |      70.00 |

|        103 | RAM SHUKLA   |          21 |      50.00 |

|        104 | RAJU RASTOGI |          19 |      65.00 |

|        105 | JAMES HOLAND |          20 |      60.00 |

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

5 rows in set (0.00 sec)

Query OK, 0 rows affected (0.09 sec)



/*

NOW,

WE WILL USE ALL THIS CREATED PROCEDURES.

*/
```

```
mysql> CALL INSERT_STUDENT(106,'SALMAN JAMADAR',19,89);
Query OK, 1 row affected (0.01 sec)

mysql> CALL INSERT_STUDENT(107,'SUSHANT SUTAR',20,90);
Query OK, 1 row affected (0.01 sec)

mysql> CALL INSERT_STUDENT(108,'TANVEER BHALDAR',20,80);
Query OK, 1 row affected (0.01 sec)

mysql> CALL GET_STUDENT();
+------------+-----------------+-------------+------------+
| STUDENT_ID | STUDENT_NAME    | STUDENT_AGE | PERSENTAGE |
+------------+-----------------+-------------+------------+
|        101 | AMAN MUJAWAR    |          20 |      80.60 |
|        102 | VIRAT KOHLI     |          20 |      70.00 |
|        103 | RAM SHUKLA      |          21 |      50.00 |
|        104 | RAJU RASTOGI    |          19 |      65.00 |
|        105 | JAMES HOLAND    |          20 |      60.00 |
| new    106 | SALMAN JAMADAR  |          19 |      89.00 |
| new    107 | SUSHANT SUTAR   |          20 |      90.00 |
| new    108 | TANVEER BHALDAR |          20 |      80.00 |
+------------+-----------------+-------------+------------+
8 rows in set (0.00 sec)
Query OK, 0 rows affected (0.05 sec)

mysql> CALL FIND_STUDENT(108);
+------------+-----------------+-------------+------------+
| STUDENT_ID | STUDENT_NAME    | STUDENT_AGE | PERSENTAGE |
+------------+-----------------+-------------+------------+
|        108 | TANVEER BHALDAR |          20 |      80.00 |
+------------+-----------------+-------------+------------+
1 row in set (0.00 sec)
Query OK, 0 rows affected (0.02 sec)
```