IT252: DBMS Assignment 2
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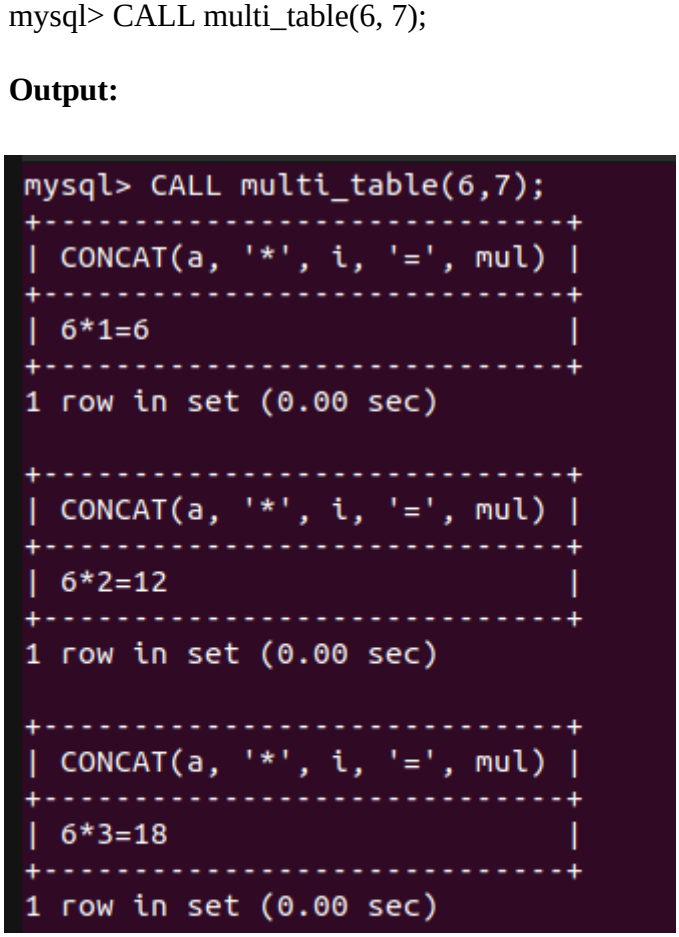
Q1)Write a PL/SQL procedure called multi_table that takes two numbers as parameter and displays the multiplication of the first parameter till the second parameter.
Code:

```
mysql> CREATE DATABASE Test;
Query OK, 1 row affected (0.02 sec)

mysql> Use Test;
Database changed
mysql> DELIMITER //
mysql> CREATE PROCEDURE multi_table(a INT, b INT)
    -> BEGIN
    ->   DECLARE i INT DEFAULT 1;
    ->   DECLARE mul INT;
    ->
    ->   WHILE i <= b DO
    ->     SET mul = a * i;
    ->     SELECT CONCAT(a, '*', i, '=', mul);
    ->     SET i = i + 1;
    ->   END WHILE;
    -> END //
Query OK, 0 rows affected (0.02 sec)
mysql> DELIMITER ;
mysql> CALL multi_table(6, 7);
```

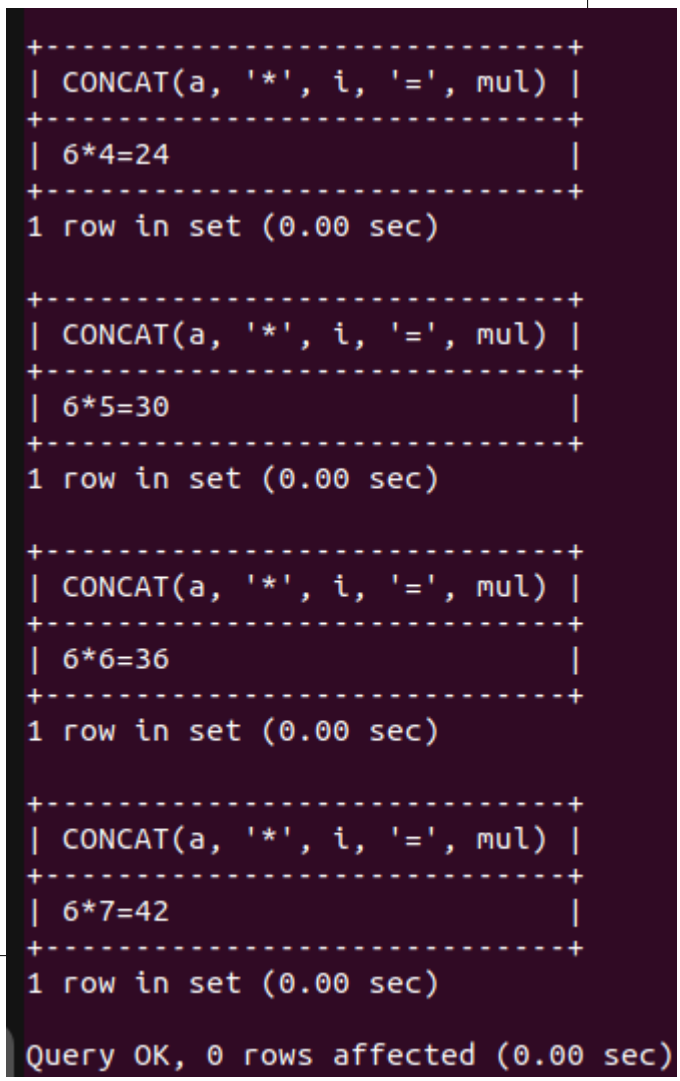
Output:



```
mysql> CALL multi_table(6,7);
+-----------------------------+
| CONCAT(a, '*', i, '=', mul) |
+-----------------------------+
| 6*1=6                       |
+-----------------------------+
1 row in set (0.00 sec)

+-----------------------------+
| CONCAT(a, '*', i, '=', mul) |
+-----------------------------+
| 6*2=12                      |
+-----------------------------+
1 row in set (0.00 sec)

+-----------------------------+
| CONCAT(a, '*', i, '=', mul) |
+-----------------------------+
| 6*3=18                      |
+-----------------------------+
1 row in set (0.00 sec)
```



```
+-----------------------------+
| CONCAT(a, '*', i, '=', mul) |
+-----------------------------+
| 6*4=24                      |
+-----------------------------+
1 row in set (0.00 sec)

+-----------------------------+
| CONCAT(a, '*', i, '=', mul) |
+-----------------------------+
| 6*5=30                      |
+-----------------------------+
1 row in set (0.00 sec)

+-----------------------------+
| CONCAT(a, '*', i, '=', mul) |
+-----------------------------+
| 6*6=36                      |
+-----------------------------+
1 row in set (0.00 sec)

+-----------------------------+
| CONCAT(a, '*', i, '=', mul) |
+-----------------------------+
| 6*7=42                      |
+-----------------------------+
1 row in set (0.00 sec)

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

Q2)Write a PL/SQL function called oddeven to retun 1 if the number passed to it is Even else will return false.
Code:

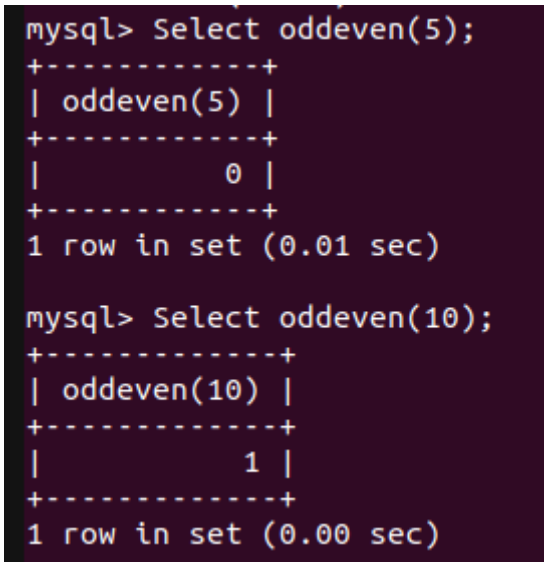
```
mysql> SET GLOBAL log_bin_trust_function_creators = 1;
Query OK, 0 rows affected (0.00 sec)

mysql> DELIMITER //
mysql>
mysql> CREATE FUNCTION oddeven(N INT)
    -> RETURNS TINYINT
    -> BEGIN
    ->   DECLARE result TINYINT;
    ->   IF N % 2 = 0 THEN
    ->     SET result = 1;
    ->   ELSE
    ->     SET result = 0;
    ->   END IF;
    ->   RETURN result;
    -> END //
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> DELIMITER ;

mysql> Select oddeven(5);
```

Output:
Returns 1 for even numbers
Returns 0 for Odd numbers



Q3)Write a PL/SQL Block that will display the name, dept no, salary of the first highest paid employee.
Code:

```
mysql> CREATE TABLE departments (
    ->   dept_no INT PRIMARY KEY,
    ->   dept_name VARCHAR(100)
    -> );
Query OK, 0 rows affected (0.06 sec)

mysql> INSERT INTO departments (dept_no, dept_name) VALUES
    ->   (1, 'Sales'),
    ->   (2, 'Marketing'),
    ->   (3, 'Analyst'),
    ->   (4, 'HR'),
    ->   (5, 'Coders');
Query OK, 5 rows affected (0.02 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> CREATE TABLE employees (
    ->   emp_id INT PRIMARY KEY AUTO_INCREMENT,
    ->   emp_name VARCHAR(100),
    ->   dept_no INT,
    ->   salary DECIMAL(10, 2),
    ->   FOREIGN KEY (dept_no) REFERENCES departments(dept_no)
    -> );
Query OK, 0 rows affected (0.06 sec)

mysql> INSERT INTO employees (emp_name, dept_no, salary) VALUES
    ->   ('Abin Mathews', 1, 4000.00),
    ->   ('Smith Steven', 2, 5600.00),
    ->   ('Bhuvan, 1, 3700.00),
    ->   ('Sarah Thompson', 3, 7000.00),
    ->   ('David Tames', 2, 6850.00),
    ->   ('Wilson', 4, 4450.00);
Query OK, 6 rows affected (0.02 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

Query:

```
mysql> SELECT emp_name, dept_no, salary
    -> FROM employees
    -> WHERE salary = (
    ->   SELECT MAX(salary)
    ->   FROM employees
    -> );
```

Output:

```
mysql> SELECT emp_name, dept_no, salary
    -> FROM employees
    -> WHERE salary = (
    ->   SELECT MAX(salary)
    ->   FROM employees
    -> );
+----------------+---------+---------+
| emp_name       | dept_no | salary  |
+----------------+---------+---------+
| Sarah Thompson |       3 | 7000.00 |
+----------------+---------+---------+
1 row in set (0.01 sec)
```