DBs LabNo.11

Name: Umair Hafeez | CMS ID: 023-24-0473 | BSCS II

DATABASE SYSTEM

LAB No: 11

Instructor: Marina Gul

Objective of Lab No. 11:

 After performing lab 11, students will be able to:

- Introduction to Control Structures

- IF-THEN

- CASE

- LOOP

- WHILE

- REPEAT

- LEAVE

Lab Task(s):

1. Create a procedure countEven that will sum the number from 2 to given particular Number passes through IN parameter using any Loop.

Query:
```
DELIMITER $$

CREATE PROCEDURE countEven(IN maxNumber INT)
BEGIN
    DECLARE counter INT DEFAULT 2;
    DECLARE evenCount INT DEFAULT 0;

    WHILE counter <= maxNumber DO
      IF counter % 2 = 0 THEN
         SET evenCount = evenCount + 1;
      END IF;
      SET counter = counter + 1;
    END WHILE;
```

```
    SELECT CONCAT('Number of even numbers from 2 to ', maxNumber, ' is: ', evenCount) AS
result;
END $$

DELIMITER ;
```

2. Create a procedure checkCustomer that will take customerNumber through IN parameter and
display Whether the customer exist in customer table or not.

Query:

```
DELIMITER $$

CREATE PROCEDURE checkCustomer(IN pCustomerNumber INT)
BEGIN
   IF EXISTS (SELECT 1 FROM customers WHERE customerNumber = pCustomerNumber) THEN
      SELECT 'Customer exists' AS result;
   ELSE
      SELECT 'Customer does not exist' AS result;
   END IF;
END $$

DELIMITER ;
```

3. Create a procedure CountEmployees that will use any conditional statement and count the no of
employees based on these conditions - OFFICE_CODE > 3 - OFFICE_CODE < 3 - OFFICE_CODE = 3
Call countEmployees(@count, 2);

The procedure takes two parameter, the office_code variable through IN parameter and return
Count (number of employees) though out parameter.

Query:

```
DELIMITER $$

CREATE PROCEDURE countEmployees(IN pOfficeCode INT, OUT empCount INT)
BEGIN
   IF pOfficeCode > 3 THEN
      SELECT COUNT(*) INTO empCount
      FROM employees
      WHERE officeCode > 3;

   ELSEIF pOfficeCode < 3 THEN
      SELECT COUNT(*) INTO empCount
      FROM employees
```

```
          WHERE officeCode < 3;

      ELSE -- pOfficeCode = 3
          SELECT COUNT(*) INTO empCount
          FROM employees
          WHERE officeCode = 3;
      END IF;
END $$

DELIMITER ;

SET @count = 0;
CALL countEmployees(2, @count);
SELECT @count AS Employee_Count;
```

4. Create a procedure EvenOdd that takes number through IN parameter then check and display whether the given no is Odd or Even.

Query:

```
DELIMITER $$

CREATE PROCEDURE EvenOdd(IN num INT)
BEGIN
    IF num % 2 = 0 THEN
        SELECT CONCAT(num, ' is Even' ) AS result;
    ELSE
        SELECT CONCAT(num, ' is Odd' ) AS result;
    END IF;
END $$

DELIMITER ;
```