

Assignment No. 5

Assignment Title: Write a PL/SQL code block to calculate the area of a circle for a value of radius varying from 5 to 9. Store the radius and the corresponding values of the calculated area in an empty table named areas, consisting of two columns, radius and area.

PL/SQL Code:

```
DECLARE
    v_radius NUMBER;
    v_area NUMBER;

BEGIN
    -- Create the "areas" table if it doesn't exist
    EXECUTE IMMEDIATE 'CREATE TABLE areas (radius NUMBER, area
NUMBER)';

    -- Loop through radii from 5 to 9
    FOR v_radius IN 5..9 LOOP
        -- Calculate the area of the circle
        v_area := 3.14159 * (v_radius * v_radius); -- Assuming pi is approximately 3.14159

        -- Insert the radius and area into the "areas" table
        INSERT INTO areas (radius, area) VALUES (v_radius, v_area);
    END LOOP;

    -- Commit the transaction
    COMMIT;

    DBMS_OUTPUT.PUT_LINE('Area calculation and storage completed successfully.');
```

EXCEPTION

```
    WHEN OTHERS THEN
        DBMS_OUTPUT.PUT_LINE('An error occurred: ' || SQLERRM);
END;
```

/

Output:

Area calculation and storage completed successfully.

```
SELECT * FROM areas;
```