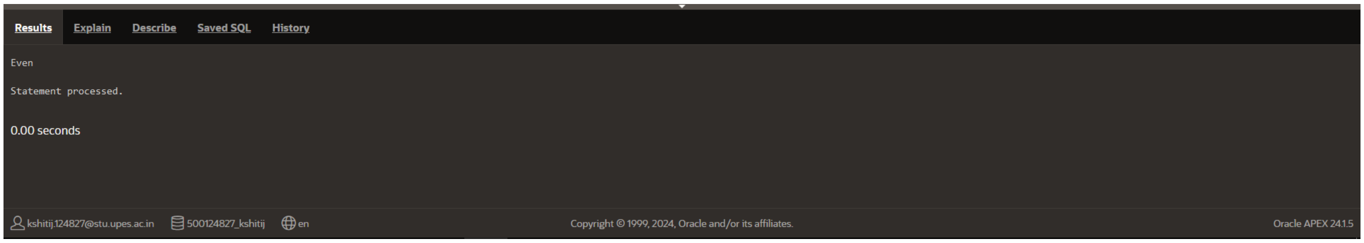
Name: Kshitij Chandrakar
Batch: 49
SAP: 500124827

1. PL/SQL Block to Check Even or Odd Number

```
DECLARE
    num NUMBER;
BEGIN
    num := :num;

    IF MOD(num, 2) = 0 THEN
        DBMS_OUTPUT.PUT_LINE('Even');
    ELSE
        DBMS_OUTPUT.PUT_LINE('Odd');
    END IF;
END;
```

Output with Input 10


Results
Explain
Describe
Saved SQL
History

```
Even

Statement processed.

0.00 seconds
```

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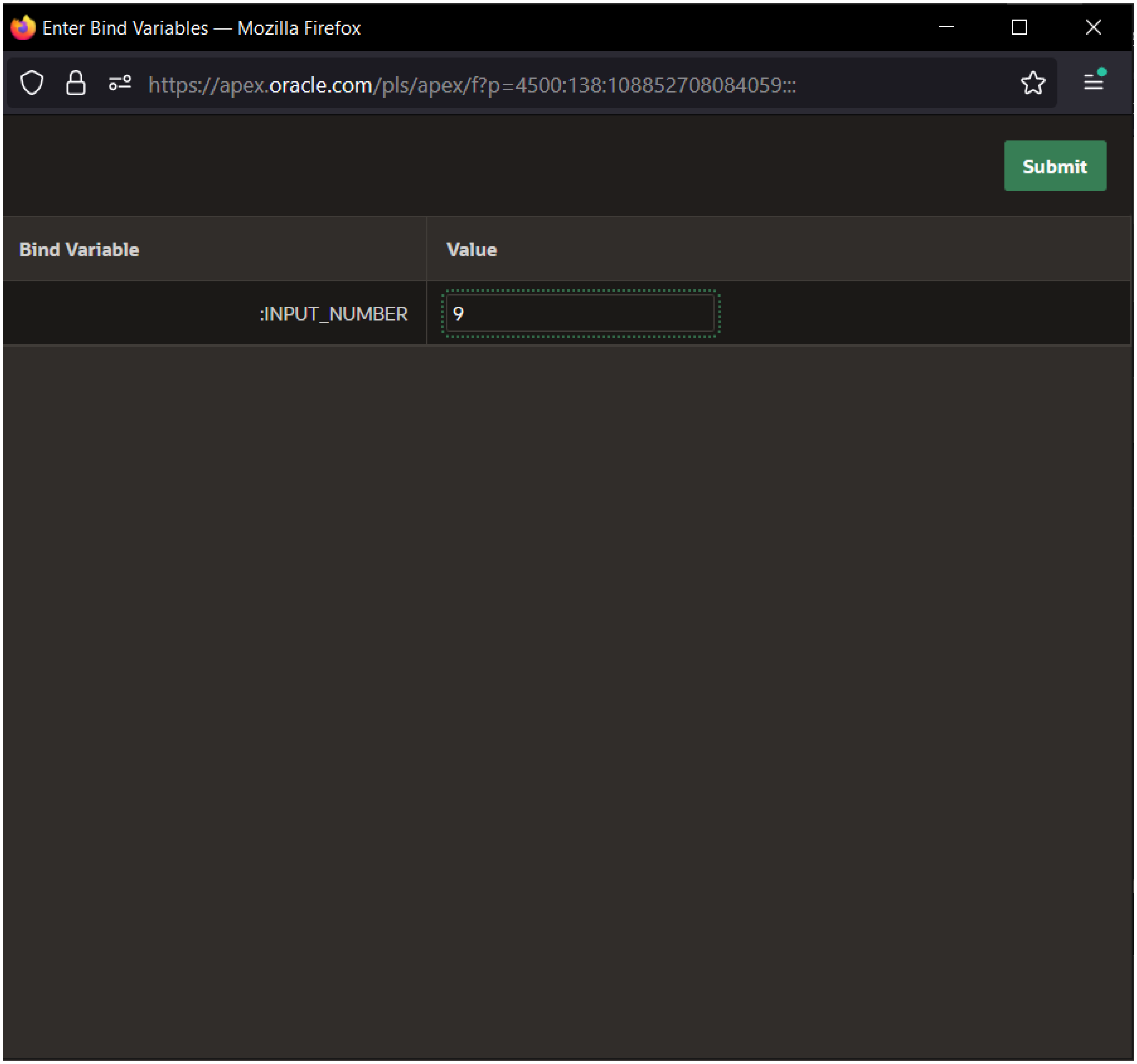
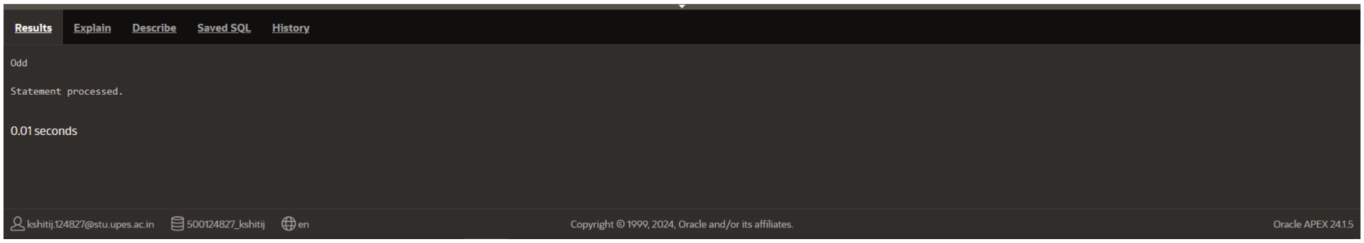
Output with Input 9



Enter Bind Variables — Mozilla Firefox
https://apex.oracle.com/pls/apex/f?p=4500:138:108852708084059:::
Submit

Bind Variable	Value
:INPUT_NUMBER	9



Results
Explain
Describe
Saved SQL
History

```
Odd

Statement processed.
```

0.01 seconds

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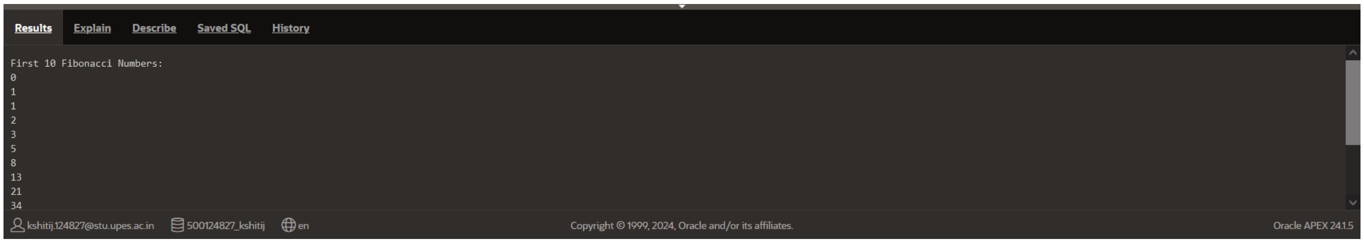
2. PL/SQL Block Using a WHILE Loop to Display First 10 Fibonacci Numbers

```
DECLARE
    a NUMBER := 0;
    b NUMBER := 1;
    next NUMBER;
    count1 NUMBER := 1;  -- Initialize counter
```

```
BEGIN
    DBMS_OUTPUT.PUT_LINE('First 10 Fibonacci Numbers:');

    WHILE count1 <= 10 LOOP
        DBMS_OUTPUT.PUT_LINE(a);
        next := a + b;
        a := b;
        b := next;
        count1 := count1 + 1;
    END LOOP;
END;
```



Results
Explain
Describe
Saved SQL
History

```
First 10 Fibonacci Numbers:
0
1
1
2
3
5
8
13
21
34
```

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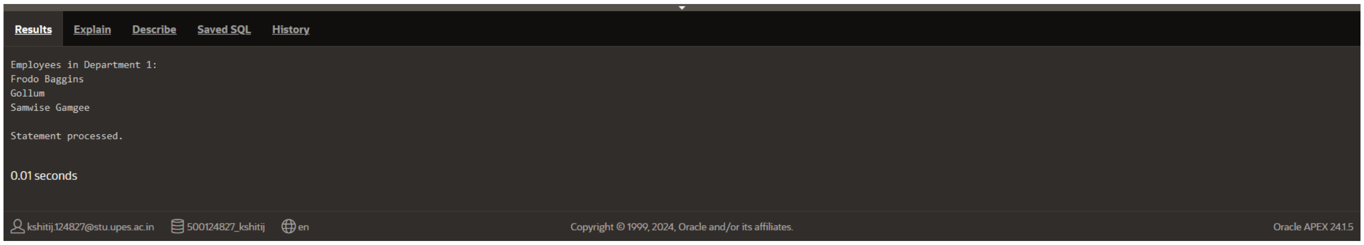
3. PL/SQL Block to Display Employee Names by Department ID

```
DECLARE
    dept_id NUMBER;
BEGIN
    dept_id := :dept_id;

    DBMS_OUTPUT.PUT_LINE('Employees in Department ' || dept_id || ':');

    FOR emp_rec IN (SELECT employee_name FROM employees WHERE department_id =
dept_id) LOOP
        DBMS_OUTPUT.PUT_LINE(emp_rec.employee_name);
    END LOOP;
END;
/
```


Results
Explain
Describe
Saved SQL
History
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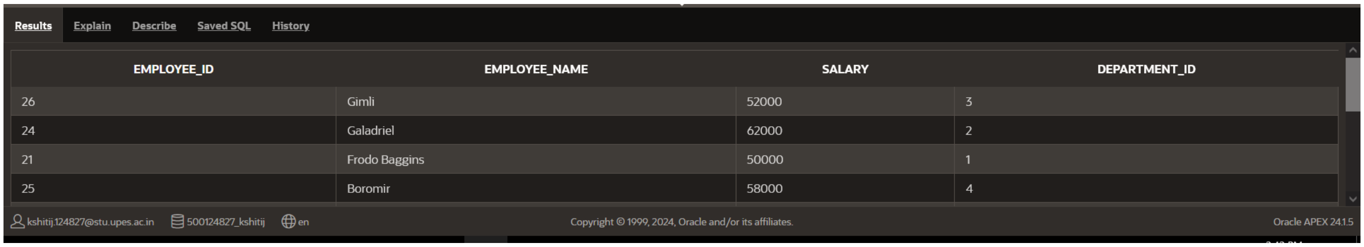
```
Employees in Department 1:
Frodo Baggins
Gollum
Samwise Gamgee

Statement processed.
```

0.01 seconds


Results
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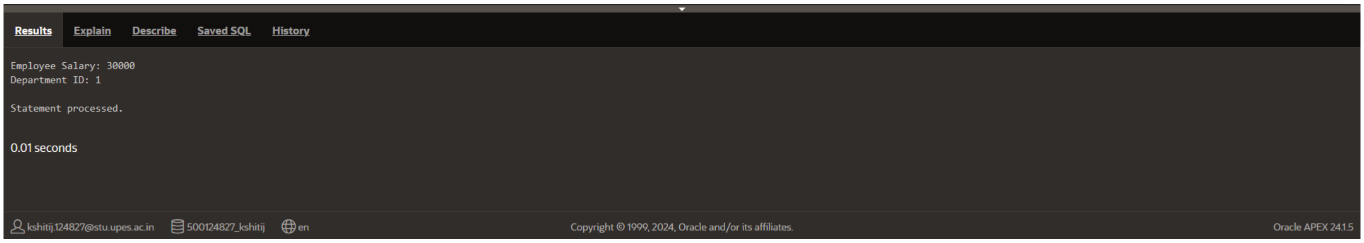
EMPLOYEE_ID	EMPLOYEE_NAME	SALARY	DEPARTMENT_ID
26	Gimli	52000	3
24	Galadriel	62000	2
21	Frodo Baggins	50000	1
25	Boromir	58000	4

4. PL/SQL Block to Display Employee's Salary and Department

```
DECLARE
    emp_id NUMBER;
    emp_salary NUMBER;
    emp_dept NUMBER;
BEGIN
    emp_id := :emp_id;

    SELECT salary, department_id INTO emp_salary, emp_dept
    FROM employees
    WHERE employee_id = emp_id;

    DBMS_OUTPUT.PUT_LINE('Employee Salary: ' || emp_salary);
    DBMS_OUTPUT.PUT_LINE('Department ID: ' || emp_dept);
EXCEPTION
    WHEN NO_DATA_FOUND THEN
        DBMS_OUTPUT.PUT_LINE('Employee not found.');
END;
/
```


Results
Explain
Describe
Saved SQL
History
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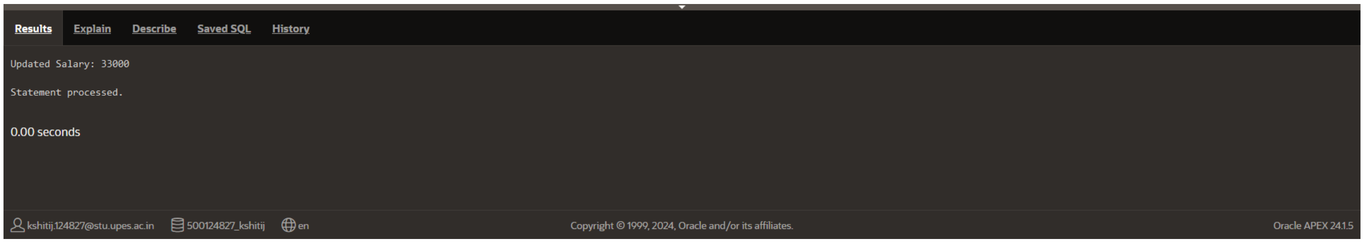
```
Employee Salary: 30000
Department ID: 1

Statement processed.
```

0.01 seconds

5. Procedure to Update Employee's Salary

```
CREATE OR REPLACE PROCEDURE update_employee_salary (
    p_emp_id IN NUMBER,
    p_increase_percentage IN NUMBER
) AS
    v_new_salary NUMBER;
BEGIN
    UPDATE employees
    SET salary = salary + (salary * p_increase_percentage / 100)
    WHERE employee_id = p_emp_id
    RETURNING salary INTO v_new_salary;

    DBMS_OUTPUT.PUT_LINE('Updated Salary: ' || v_new_salary);
EXCEPTION
    WHEN NO_DATA_FOUND THEN
        DBMS_OUTPUT.PUT_LINE('Employee not found.');
END;
update_employee_salary(2, 10);
```


Results
Explain
Describe
Saved SQL
History
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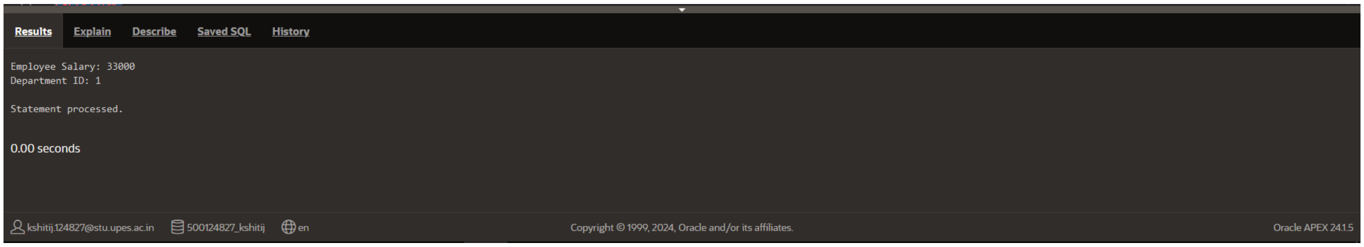
```
Updated Salary: 33000

Statement processed.

0.00 seconds
```


Results
Explain
Describe
Saved SQL
History
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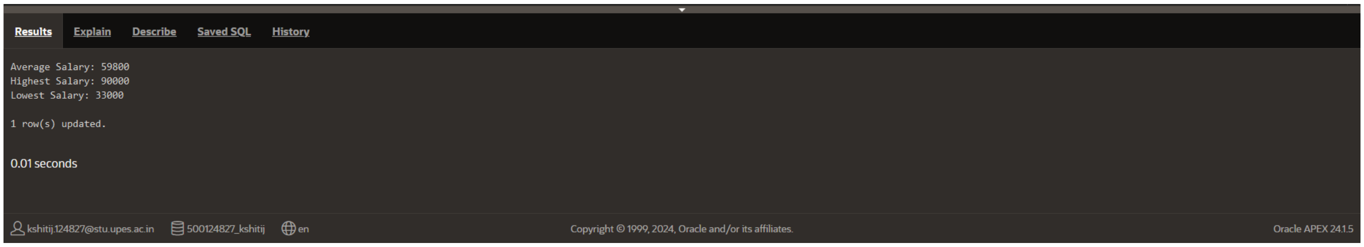
```
Employee Salary: 33000
Department ID: 1

Statement processed.

0.00 seconds
```

6. Nested PL/SQL Block to Calculate Average, Highest, and Lowest Salaries

```
        DECLARE
    avg_salary NUMBER;
    highest_salary NUMBER := 0;
    lowest_salary NUMBER := NULL;
BEGIN
    SELECT AVG(salary) INTO avg_salary
    FROM employees;

    FOR emp_rec IN (SELECT salary FROM employees) LOOP
        IF lowest_salary IS NULL OR emp_rec.salary < lowest_salary THEN
            lowest_salary := emp_rec.salary;
        END IF;
        IF emp_rec.salary > highest_salary THEN
            highest_salary := emp_rec.salary;
        END IF;
    END LOOP;

    DBMS_OUTPUT.PUT_LINE('Average Salary: ' || avg_salary);
    DBMS_OUTPUT.PUT_LINE('Highest Salary: ' || highest_salary);
    DBMS_OUTPUT.PUT_LINE('Lowest Salary: ' || lowest_salary);
END;
```


Results
Explain
Describe
Saved SQL
History

```
Average Salary: 59800
Highest Salary: 90000
Lowest Salary: 33000

1 row(s) updated.
```

0.01 seconds

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