Student Name: Basavraj Nagappa Jaliminche

Student Id: 8800149

PROGRAM: Reporting Systems and Database Development (1517)

Course Name: Relational Databases PROG 8590

Assignment No: 05

Assignment 5

Question 1 – Working with Variables and Displaying Output [5 Marks]: Write PL/SQL to do some basic variable manipulation. Store in variable 1 the string "Hello" and store in variable 2 the string "World". Print the concatenated variable 1 to variable 2.

Answer:

```
DECLARE -- declaring section

v_string1 varchar2(5):='Hello'; -- Declaring variable with value as given

v_string2 varchar2(5):= 'World'; -- Declaring variable with value as given

BEGIN --execution section

DBMS_OUTPUT.put_line(v_string1||''||v_string2); --Concatenating two variables

EXCEPTION --exception handling section

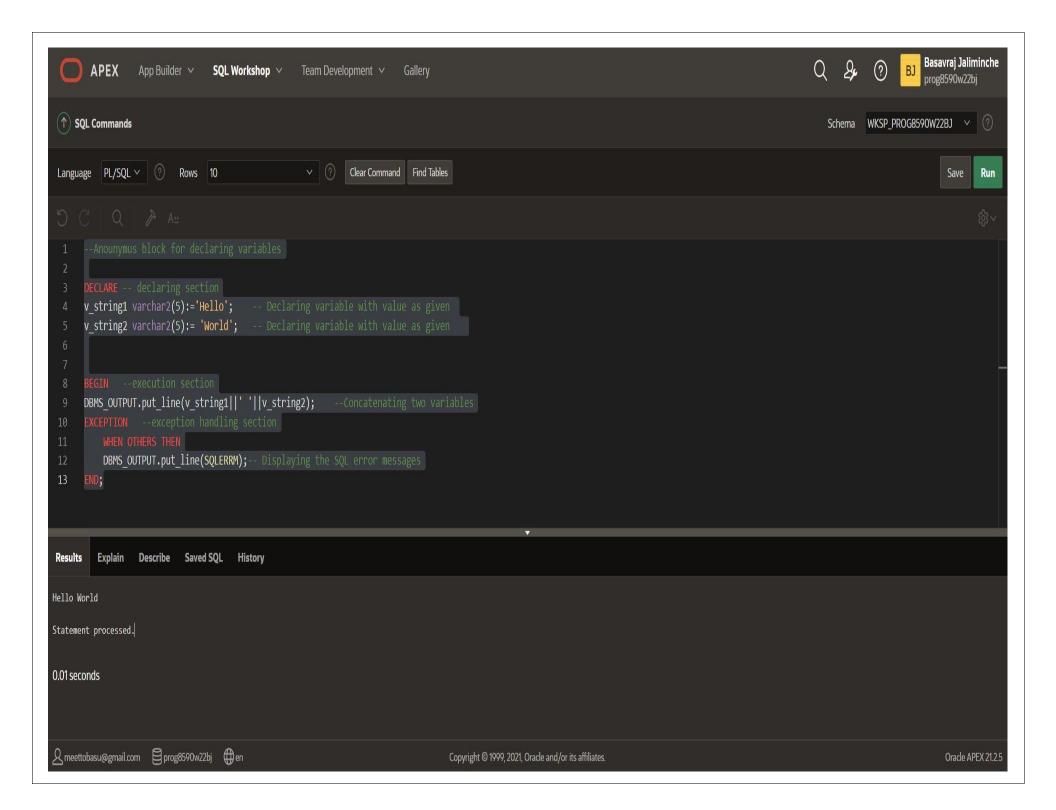
WHEN OTHERS THEN

DBMS_OUTPUT.put_line(SQLERRM);-- Displaying the SQL error messages

END;

In the anonymous block We have stored one value in the the string1 as "Hello" and other value in string 2 as "world"

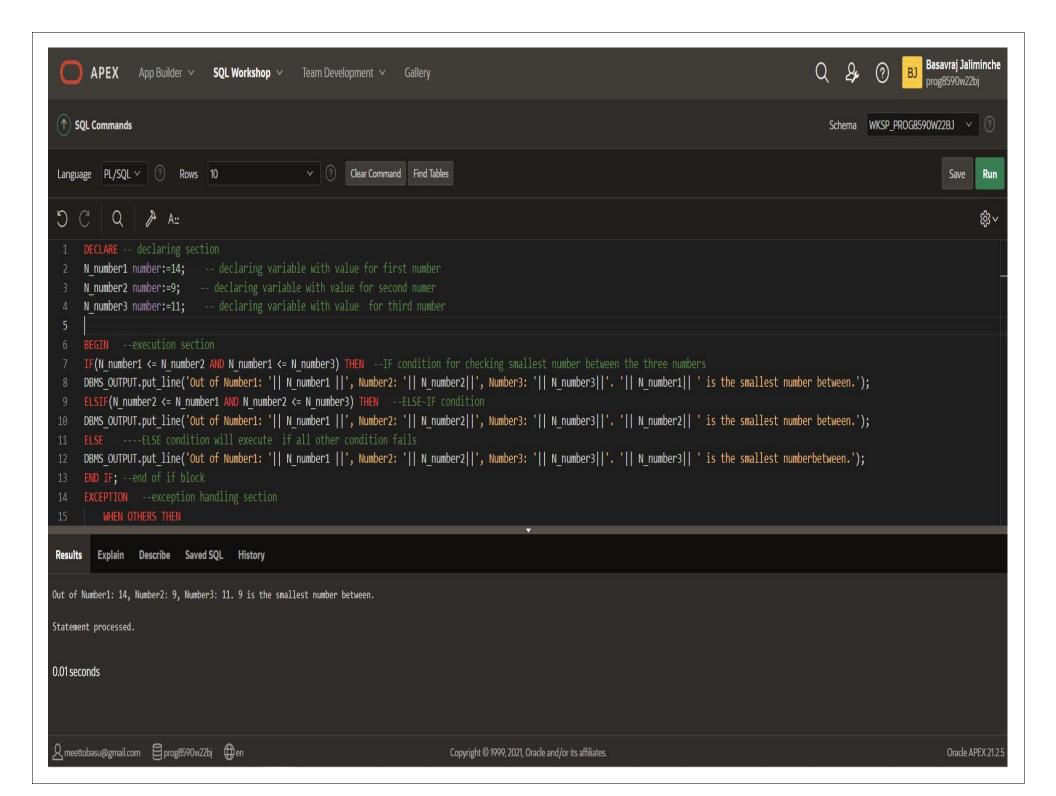
After that we have done concatenation for the two strings to get output as "Hello World" with exception handling.
```



Question 2 – Conditions and Exceptions [10 Marks]: Write a PL/SQL program to determine the lowest of three numbers by using Nested-If statement. The numbers will be assigned in the declare section.

Answer:

```
DECLARE -- declaring section
N number1 number:=14; -- declaring variable with value for first number
N number2 number:=9; -- declaring variable with value for second numer
N number3 number:=11; -- declaring variable with value for third number
BEGIN --execution section
IF(N number1 <= N number2 AND N number1 <= N number3) THEN --IF condition for checking smallest number between the three numbers
DBMS OUTPUT.put line('Out of Number1: '|| N number1 ||', Number2: '|| N number2||', Number3: '|| N number3||'. '|| N number1|| 'is
the smallest number between.');
ELSIF(N_number2 <= N_number1 AND N_number2 <= N_number3) THEN --ELSE-IF condition
DBMS OUTPUT.put line('Out of Number1: '|| N number1 ||', Number2: '|| N number2||', Number3: '|| N number3||'. '|| N number2|| 'is
the smallest number between.');
ELSE ----ELSE condition will execute if all other condition fails
DBMS OUTPUT.put line('Out of Number1: '|| N number1 ||', Number2: '|| N number2||', Number3: '|| N number3||'. '|| N number3|| 'is
the smallest number between.');
END IF; --end of if block
EXCEPTION --exception handling section
  WHEN OTHERS THEN
  DBMS OUTPUT.put line(SQLERRM);-- Display the SQL error message
END;
```



Question 3 – Cursors [20 Marks]: Write a PL/SQL program to output ID, first name and last name and salary from OEHR_EMPLOYEES. To do this, use explicit cursor. Expected result: 100 Steven King 24000 101 Neena Kochhar 17000 102 Lex De Haan 17000

Answer:

```
DECLARE CURSOR c employee salary IS -- Define cursor with Name
SELECT EMPLOYEE ID, FIRST NAME, LAST NAME, SALARY FROM OEHR EMPLOYEES; --query for cursor defined
vid OEHR EMPLOYEES.EMPLOYEE ID%TYPE; -- Define variable which can hold data returned from cursor declared
vfname OEHR_EMPLOYEES.FIRST_NAME%TYPE; -- Define variable which can hold data returned from cursor declared
vlname OEHR EMPLOYEES.LAST NAME%TYPE; -- Define variable which can hold data returned from cursor declared
vsalary OEHR EMPLOYEES.SALARY%TYPE; -- Define variable which can hold data returned from cursor declared
BEGIN
OPEN c employee salary;
LOOP --start loop
 FETCH c employee salary INTO vid, vfname, vlname, vsalary; --store values into variables
 EXIT WHEN c employee salary%NOTFOUND; -- halt loop statement if not found
  DBMS_OUTPUT.put_line(vid||''||vfname||''||vlname||''||vsalary); --displaying output
END LOOP; --end loop
CLOSE c employee salary; --closing cursor
END; --end cursar
```

