Parul University

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PIET_Oracle DBMS_Course

PIET_Oracle DBMS_Session 10_PAH

Attempt : 1
Total Mark : 50
Marks Obtained : 50

Section 1 : COD

1. Problem Statement

Michael is developing a script to analyze employee performance. He needs to find the average performance score of a list of scores. The scores are given as a comma-separated string '80, 90, 85, 95, 88'. Write a PL/SQL block to calculate and display the average score.

Answer

oracle.sql

```
DECLARE
  v_scores VARCHAR2(100) := '80, 90, 85, 95, 88';
  v_avg_score NUMBER;
  v_total NUMBER := 0;
  v_count NUMBER := 0;
  v_pos NUMBER := 1;
```

```
  v_score NUMBER;
BEGIN
  WHILE v_pos > 0 LOOP
    v_pos := INSTR(v_scores, ',');
    IF v_pos > 0 THEN
       v_score := TO_NUMBER(TRIM(SUBSTR(v_scores, 1, v_pos - 1)));
       v_scores := SUBSTR(v_scores, v_pos + 1);
    ELSE
      v_score := TO_NUMBER(v_scores);
    END IF;

    v_total := v_total + v_score;
    v_count := v_count + 1;

    EXIT WHEN v_pos = 0;
  END LOOP;

  v_avg_score := v_total / v_count;
```

Status : Correct **Marks : 10/10**

2. Problem Statement

Alice is developing a text processing script and needs to find the length of the longest word in the given sentence 'PL/SQL is a powerful language'. Write a PL/SQL block to find and display the length of the longest word in the sentence.

Answer

oracle.sql

```
DECLARE
  v_sentence VARCHAR2(100) := 'PL/SQL is a powerful language';
  v_longest_word VARCHAR2(100);
  v_current_word VARCHAR2(100);
  v_length NUMBER := 0;
  v_max_length NUMBER := 0;
  v_pos NUMBER := 1;
BEGIN
  WHILE v_pos > 0 LOOP
```

```
  v_pos := INSTR(v_sentence, ' ');
  IF v_pos > 0 THEN
    v_current_word := SUBSTR(v_sentence, 1, v_pos - 1);
    v_sentence := SUBSTR(v_sentence, v_pos + 1);
  ELSE
    v_current_word := v_sentence;
  END IF;

  IF LENGTH(v_current_word) > v_max_length THEN
    v_max_length := LENGTH(v_current_word);
  END IF;

  EXIT WHEN v_pos = 0;
END LOOP;
```

Status : Correct **Marks : 10/10**

3. Problem Statement

David is developing a text analysis tool and needs to count the number of words in a given sentence. The sentence is processed by repeatedly finding the position of spaces using the INSTR function to determine word boundaries.

Your task is to write a PL/SQL block that counts the number of words in the sentence 'Hello World from Oracle' and outputs the total count.

Answer

oracle.sql

```
DECLARE

  v_string VARCHAR2(100) := 'Hello World from Oracle';

  v_word_count NUMBER := 0;

  v_pos NUMBER := 1;

BEGIN
```

```
  LOOP
    v_pos := INSTR(v_string, ' ', v_pos) + 1;
    EXIT WHEN v_pos = 1;
    v_word_count := v_word_count + 1;
  END LOOP;


  v_word_count := v_word_count + 1;
```

Status : Correct **Marks : 10/10**

4. Problem Statement

Priya is participating in a coding competition and has been tasked with counting the number of vowels in a given string. For her current problem, she needs to analyze the string "Hello World". Priya must write a PL/SQL block to count the vowels in this string and output the result.

Your task is to help Priya by implementing a PL/SQL block that counts the vowels in the string "Hello World" using the functions INSTR and SUBSTR, and prints the count.

Answer

oracle.sql

```
DECLARE
  v_string VARCHAR2(100) := 'Hello World';
  v_vowel_count NUMBER := 0;
BEGIN
  FOR i IN 1..LENGTH(v_string) LOOP
```

```
    IF INSTR('AEIOUaeiou', SUBSTR(v_string, i, 1)) > 0 THEN
      v_vowel_count := v_vowel_count + 1;
    END IF;
  END LOOP;
```

Status : Correct **Marks : 10/10**

5. Problem Statement

Arjun is checking whether a given string reads the same forward and backward. For his current task, he needs to test the string "madam". Arjun needs to write a PL/SQL block to reverse this string and determine if it is a palindrome.

Your task is to help Arjun to complete the task.

Answer

oracle.sql

```
DECLARE
  v_string VARCHAR2(100) := 'madam';
  v_reversed_string varchar2 (100) := '';
BEGIN
  FOR i IN REVERSE 1..LENGTH(v_string) LOOP
    v_reversed_string := v_reversed_string || SUBSTR(v_string, i, 1);
  END LOOP;
```

Status : Correct **Marks : 10/10**