

Database Programming with PL/SQL

1-1: Introduction to PL/SQL

Practice Activities

Vocabulary

Identify the vocabulary word for each definition below:

| | |
|-----------------------|--|
| Procedural constructs | Programming language features such as reusable/callable program units, modular blocks, cursors, constants, variables, assignment statements, conditional control statements, and loops |
| PL/SQL | Oracle Corporations standard procedural language for relational databases which allows basic program logic and control flow to be combined with SQL statements |

Try It / Solve It

1. Circle the programming language meeting the criteria

Criteria

3GL

4GL

Is proprietary to Oracle Corporation

Nonprocedural

Procedural

Is ANSI-compliant

Language

PL/SQL

PL/SQL

PL/SQL

PL/SQL

PL/SQL

PL/SQL

SQL

SQL

SQL

SQL

SQL

SQL

2. In your own words, describe why a procedural language like PL/SQL is needed.

In order to add program logic to SQL queries that would otherwise be very long.

3. List some examples of procedural constructs in PL/SQL.

IF, FOR, CURSOR

4. In the following code, identify (circle or highlight) examples of these procedural constructs: variable, conditional control statement, reusable/callable program unit, and an assignment statement.

```
DECLARE
```

```
  v_first_name varchar2(40);
```

```
  v_last_name  varchar2(40);
```

```
  v_first_letter varchar2(1);
```

```
BEGIN
```

```
  SELECT first_name, last_name INTO v_first_name, v_last_name
```

```
    FROM students
```

```
    WHERE student_id = 105;
```

```
  v_first_letter := get_first_letter(v_last_name);
```

```
  IF 'N' > 'v_first_letter' THEN
```

```
    DBMS_OUTPUT.PUT_LINE('The last name for ' || v_first_name || ' ' || v_last_name || ' is  
      between A and M');
```

```
  ELSE
```

```
    DBMS_OUTPUT.PUT_LINE('The last name for ' || v_first_name || ' ' || v_last_name || ' is  
      between N and Z');
```

```
  END IF;
```

```
END;
```