

13/04/2020

Computer Science 2nd Year

Subject - 'DBMS'

PL/SQL Introduction

PL/SQL is a block structured language that enables developers to combine the power of SQL with Procedural Statements. All the statements of a block are passed to Oracle engine all at once which increases processing speed and decreases the traffic.

Disadvantage of SQL is

- 1) SQL doesn't provide the programmers with a technique of condition checking looping and branching.
- 2) SQL statements are passed to Oracle engine one at a time which increase traffic and decreases speed.
- 3) SQL has no facility of error checking during manipulation of data.

Features of PL/SQL.

- 1) PL/SQL is basically a procedural language, which provide the functionality of decision making, Iteration and many more features of Procedural programming languages.
- 2) PL/SQL can execute a number of queries in one block using single command.
- 3) One can create a PL/SQL unit such as Procedures, functions, Packages triggers and types, which are stored in the database for reuse by application.
- 4) PL/SQL provides a features to handle the exception which occurs in PL/SQL Block known as exception handling Block.
- 5) Application written in PL/SQL are portable to computer hardware or operating system where oracle is operational.
- 6) PL/SQL offers extensive error checking

Difference between SQL and PL/SQL

SQL

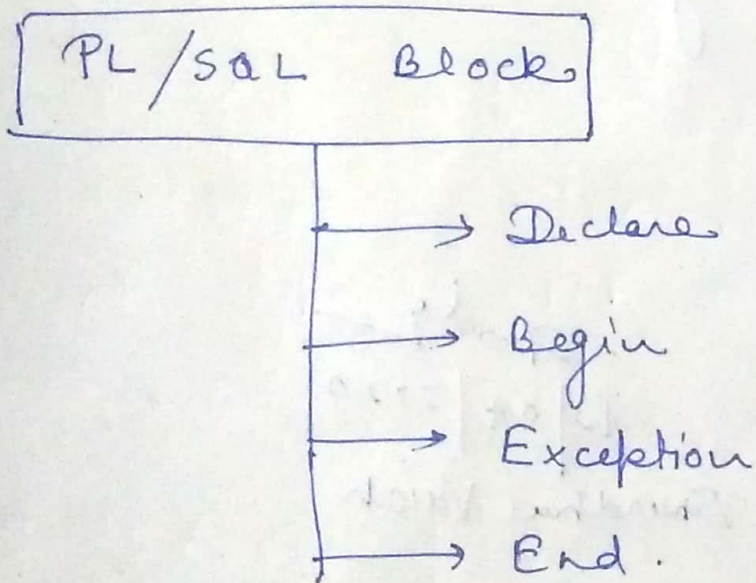
- 1) SQL is a single query that is used to perform DML and DDL operation.
- 2) It is declarative, that defines what needs to be done, rather than how things need to be done.
- 3) Execute as a single statement.
- 4) Mainly used to manipulate data.
- 5) Cannot contain PL/SQL code in it.

PL/SQL

- 1) PL/SQL is a block of codes that used to write the entire program Blocks / Procedures / function etc.
- 2) PL/SQL is procedural that defines how the things needs to be done.
- 3) Execute as a whole block.
- 4) Mainly used to create an application.
- 5) It is an extension of SQL, so it can contain SQL inside it.

Structure of PL/SQL Blocks :

PL/SQL extends SQL by adding constructs found in Procedural languages, resulting in a structural language that is more powerful than SQL. The basic unit in PL/SQL is a block. All PL/SQL programs are made up of blocks, which can be nested within each other.



Typically each block performs a logical action in the program. A block has the following structure ..

DECLARE

declaration Statements ;

BEGIN

executable Statements

EXCEPTIONS

exception handling Statements

END ;

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