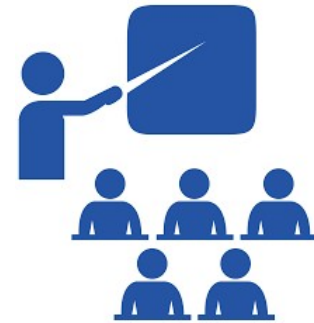




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PL/SQL Tutorial

By *(Procedural - Structured Query Language)*

Anjali singh



ORACLE®
Certified Professional

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Course Content

- What is PL/ SQL ?
- Stored Procedure
- Functions
- Cursors
- Triggers
- Demonstration and Project Design Implementation
- PL/SQL Interview Tips



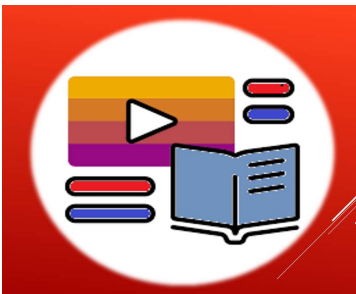
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Chapter 1

PL/SQL Tutorial

Introduction

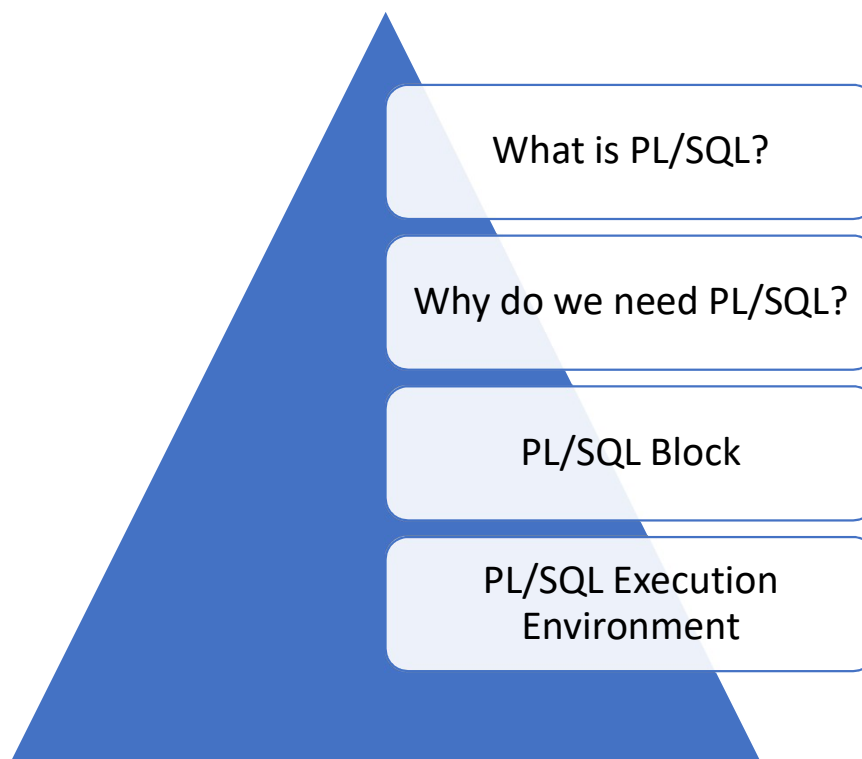
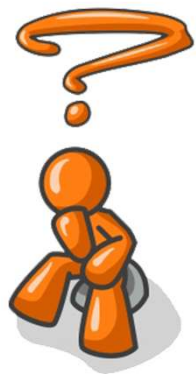


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What do we learn in this Chapter?

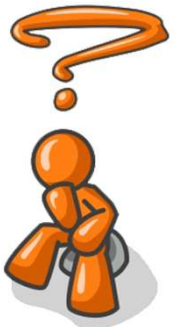




What is PL/SQL?



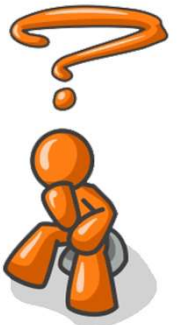
PL/SQL is a block-structured language that enables developers to combine the power of SQL with procedural statements.





Why do we need PL/SQL?

1. Procedural capabilities
2. Fast data processing for Multi-user environment
3. Developmental tool supports data manipulation and facilities of conditional checking, branching and looping
4. Improves transaction performance
5. Portable .. Many more





PL/SQL Block

DECLARE

Declarations of memory variables, constants, cursors etc.

BEGIN

SQL executable statements

PL/SQL executable statements

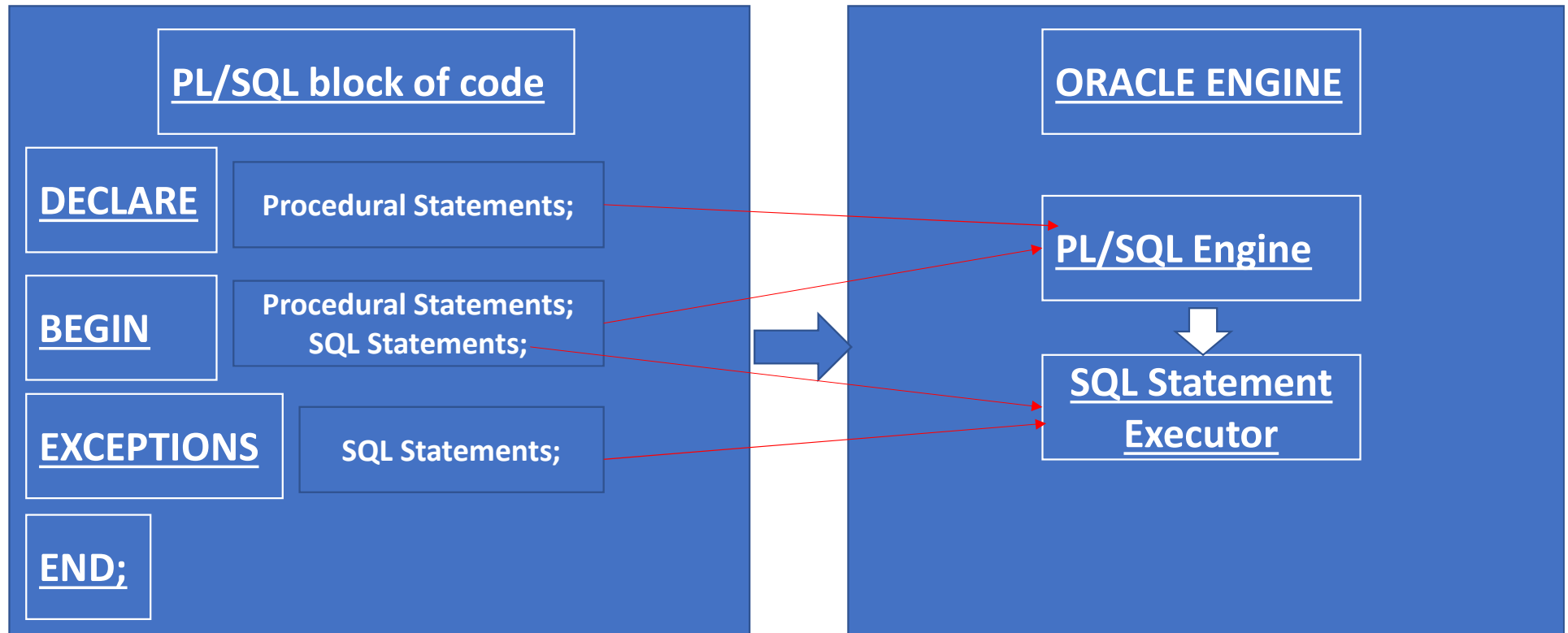
EXCEPTION

SQL or PL/SQL code to handle errors that may arise during execution of the code

END;

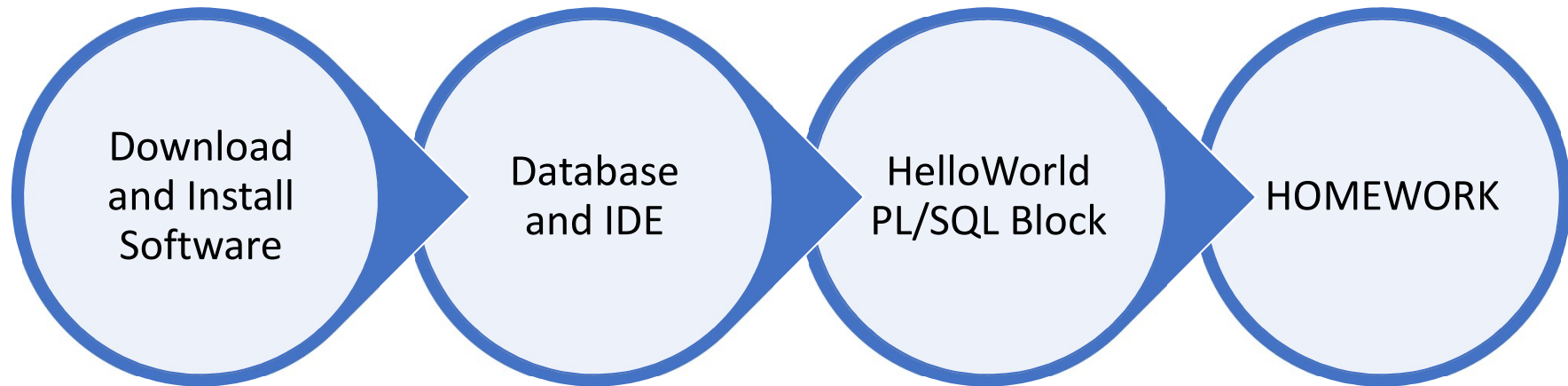


PL/SQL Block





PL/SQL EXECUTION ENVIRONMENT





Software Download and Installation

The screenshot shows the Oracle website's 'Downloads' page. The browser's address bar displays 'www.oracle.com/index.html'. The navigation menu includes 'Products', 'Solutions', 'Downloads', 'Store', 'Support', 'Training', and 'Partners'. The 'Downloads' section is highlighted with a red circle. Below the navigation menu, there are four main categories of downloads, each with a list of products:

- Popular Downloads** (highlighted with a red circle):
 - Java for Developers (highlighted with a red circle)
 - Java for your Computer
 - Java SE
 - Solaris
 - MySQL
 - Oracle Fusion Middleware 11g
 - Oracle Database
 - Prebuilt Developer VMs
- Database**:
 - Oracle Database
 - Oracle Database 11g Express Edition (highlighted with a red circle)
 - MySQL
 - Oracle Berkeley DB
 - Oracle Instant Client
 - Oracle Application Express
 - See All...
- Enterprise Management**:
 - Oracle Enterprise Manager
 - Oracle Application Testing Suite
 - See All...
- Server and Storage Systems**:
 - Solaris
 - Linux and Oracle VM
 - Firmware
 - See All...
- Developer Tools** (highlighted with a red circle):
 - SQL Developer (highlighted with a red circle)
 - JDeveloper and ADF
 - Developer Tools for Visual Studio
 - Enterprise Pack for Eclipse
 - NetBeans IDE
 - See All...
 - Prebuilt Developer VMs



HelloWorld PL/SQL Program

Run SQL Command Line

```
SQL> set serveroutput on;
SQL> DECLARE
  2  h varchar2(20);
  3  BEGIN
  4  h := 'HELLO WORLD';
  5  dbms_output.put_line('Hi! ' || h);
  6  end;
  7  /
Hi! HELLO WORLD

PL/SQL procedure successfully completed.

SQL> █
```



Practice Project

```
declare
a number(4,2);
b number(4,2);
c number(4,2);
begin
a:=2;
b:=4;
c:=a+b;
DBMS_OUTPUT.PUT_LINE('Addition of a and b is ' ||
c);
end;
/
```

Addition
 $C = A + B$



**HOME
WORK!**

Instructions

1. Calculate Average of 5 inputs and practice making basic calculator using variables and display Thank you to exit.

For more resource , assistance and questions , please contact
techranch2019@gmail.com

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Conclusion

PL/SQL

Stored
Procedure

Functions

Trigger

Cursors

Demonstration

Interview Tips

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SUBSCRIBE





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THANK YOU



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