Exceptions

An Exception is an error situation, which arises during program execution. When an error occurs exception is raised, normal execution is stopped and control transfers to exceptionhandling part.

Exception handlers are routines written to handle the exception. The exceptions can be internally defined (system-defined or pre-defined) or User-defined exception.

```
EXCEPTION
        WHEN <ExceptionName> THEN
        <User Defined Action To Be Carried Out>
```

Predefined exception handlers are declared globally in package STANDARD. Hence we need not have to define them rather just use them.

```
DECLARE
N number;
BEGIN N:=10/0;
EXCEPTION WHEN ZERO_DIVIDE THEN
DBMS_OUTPUT.PUT_LINE('divide by zero error occures..');
END;
```

User-defined Exceptions :

The technique that is used is to bind a numbered exception handler to a name using Pragma Exception_init (). This binding of a numbered exception handler, to a name (i.e. a String), is done in the Declare section of a PL/SQL block.

The Pragma action word is a call to a pre-compiler, which immediately binds the numbered exception handler to a name when encountered.

User Defined Exception Handling :

To trap business rules being violated the technique of raising user-defined exceptions and then handling them, is used.

User-defined error conditions must be declared in the declarative part of any PL/SQL block. In the executable part, a check for the condition that needs special attention is made. If that condition exists, the call to the user-defined exception is made using a RAISE statement. The exception once raised is then handled in the Exception handling section of the PL/SQL code block.

```
DECLARE
    ex EXCEPTION;
  BEGIN
      IF TO_CHAR(SYSDATE,'DY')=='SUN' THEN
         RAISE ex;
      END IF;
  EXCEPTION
          WHEN ex then
        DBMS_OUTPUT.put_line('No Transcations Today');
  END;
  /
```