Page No.
Date / /

Assignment - V

Title :- PL/SQL - control structure.

Problem statement :-

Write a PL/SQL block of code for the following requirements

Schema

Customer (cust_id, Name, Date_of_payment, Name_of_schema, States)

Fine (cust id, Date, Amount)

1. Accept cust id & name of schema from user.
2. Check the number of days (from date of payment). If days are bet^n 15 to 30 then fine amount will be Rs. 5 per day
3. If no. of days > 30 per day fine will be Rs. 50
4. After payment, states will change from N to P.
5. If condition of fine is true then details will be stored into fine table.

Objective : To understand

- The control structure
- Exception handling in PL/SQL.

Page No.
Date

Outcome :-

The students will be able to implement PL/SQL block, user defined & predefined exception handling

control structure using PL/SQL.

S/W & H/W requirements :-

SQL package, PC with 64 bit OS.

Theory :-

PL/SQL

- It stands for procedural language / structured query language.
- It offers a set of procedural commands (IF statements, loops, assignments) organized within blocks that complement & extend the reach of SQL.

Blocks in PL/SQL.

A PL/SQL block is defined by the keywords DECLARE, BEGIN, EXCEPTION & END which break up the block into 3 sections.

DECLARATIVE -

Statements that declare variables contants & the other code elements which can be used with that block.

Page No.
Date

Execute :-
Statements that run when the block is executed.

Exception Handling -
A specially structured section you can use to "catch" or trap any exceptions that are raised when the executable section runs.

Syntax:

```
DECLARE
    declaration section
BEGIN
    executable section
EXCEPTION
    exception handling statements.
END.
```

Exception Handling :-
In PL/SQL, exceptions are handled in exception block, using exception handling we can test the code & avoid it from exiting abruply when an exception occurs a message which explains its cause is recieved.

Types of Exception :-

Named System Exception - They are raised by

Page No.
Date

Oracle automatically when program violates a RDBMS rule.

Unnamed System Exception - They are not provided any name by Oracle. They are handled using when others exception handler or by associating the exception code to a name & using it as a named exception.

User-defined Exception :-

They are explicitly raised in execution section & are explicitly declared in declaration section. They should be handled by referencing the user-defined exception name in exception block.

Conclusion :-

In this assignment we have studied PL/SQL block, control structure & exception handling.