

Task-6 :- Procedures, functions and loops

Case study:- online food ordering system

Objective:- To objective of this task is to design, implement and execute PL/SQL procedures, functions and loops to handle real-world business scenarios related to an online food ordering system. This will help in automating transactions, improving database efficiency and enforcing business rules in a structured manner.

Step 1:- Ensure the necessary tables exist:-
Before running the procedure and functions, create the required tables in your Oracle Database.

```
DROP TABLE ordertable PURGE;  
DROP TABLE Delivery PURGE;  
DROP TABLE Menu-Item PURGE;
```

```
CREATE TABLE ordertable (order-ID Number primary key, cost-ID  
Number, order-Data DATE, order-total Number (10,2), Payment-status  
Varchar(20));
```

```
CREATE TABLE Delivery (order-ID Number primary key, Delivery-status  
Varchar 2(20), foreign key (order-ID) References order table (order-ID);
```

```
CREATE TABLE Menu-Item (Item-ID number primary key, Item-name  
Varchar 2(100) Price number (10,2));
```

```
INSERT INTO order table values (1, 101, To-date ('2024-20-01',  
'4444-MM-DD'), 250.50, 'Pending');
```

```
Insert into ordertable values (2, 102, 50-Data ('2024-03-03', 4444-  
MM-DD), 400.75, 'Paid');
```

```
Insert into order table values (3, To-Date ('2024-02-03', '4444-MM-  
-DD'), 15000, 'Pending');
```

```
Insert into Delivery values (1, 'Pending');
```

```
Insert into Delivery values (2, 'Delivered');
```

```
Insert into Delivery values (3, 'Pending');
```

```
Insert into menu-Item values (1, 'Pizza', 500);
```

```
Insert into menu-Item values (2, 'Burger', 300);
```

```
Insert into menu-Item values (3, 'Pasta', 450);
```

1. Procedure to update payment status

Step 1:- create a procedure
create or Replace procedure update-payment-status (p-order-ID IN
Number, p-new-status IN Varchar AS Begin update order table
set payment-status = p-New-status where order-ID = p-order-ID;
commit;

```
DBMS-output put_line ('payment status updated for order ID: || P-order  
-ID); successfully)  
End;
```

Expected output:-
procedure created

Step 2:- Execution:-

Begin

```
update-payment-status (1, 'Paid');
```

End;

Order ID: 1, Date: 01-FEB-24, Total:
250.5, Status: Paid
Statement processed.

Discount Applied: 10%
Statement processed.

Payment status updated successfully
for order ID: 1
Statement processed.

GET_TOTAL_REVENUE()

801.25

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Expected output:-

Payment status updated successfully for order ID: 1
Statement processed.

Query 2:- function to calculate total Revenue.

step 1:- create a function.

CREATE OR REPLACE function Get-total-Renue Return number as

v-total - Revenue number;

Begin

select sum (order-total) Into v-total - Revenue from

order table;

Return v-total - Revenue;

END;

Expected output:-

Function created

step 2:- Execution

GET-TOTAL-REVENUE()

SQL> 25

Query 3:- loop: mark All underlivered orders as "Delayed".

Declare v-order-ID order Table. order ID % Type;

Cursor CUR IS select order ID from Delivery where

Delivery-status = "pending";

Begin

open cur;

loop. fetch cur into v-order-ID;

Exit when cur% NOT FOUND;

update Delivery

set Delivery-status = "Delayed"

where order-ID = v-order-ID;

DBMS-output.put_line ("order " || v-order-ID || " marked as Delayed");

End loop;

Close cur;

commit;

END;

Query 5:- procedure to apply Discount on menu Items.

step 1:- check a procedure

create or Replace procedure Apply-Discount (

discount-percent-In number

)

is

Begin

update Menu-Item

set price = price - (price * discount-percent / 100);

commit;

DBMS-output.put_line ('Discount Applied: ' || discount-

percent || '%');

End;

Item_ID	Item_name	price
1	Pizza	450.00
2	Burger	450.00
3	Pasta	405.00

order_ID	Delivery_status
1	Delayed
2	Delivered
3	Delayed

order_ID	Cust_ID	order_Date	order_total	payment_status
1	101	2024-02-01	250.50	Paid
2	102	2024-02-02	400.75	Paid
3	103	2024-02-03	150.00	Pending

Expected output:-

Procedure created

step 2:- Execution

Begin

Apply Discount (10);

End;

Expected output:-

Discount Applied: 10 %
statement processed.

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EX NO.	6
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	20
SIGN WITH DATE	

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Result:- thus, the PL/SQL procedures, functions and loops on number theory business scenarios experiments was successfully complemented and results are verified.