

Task-6 :- Procedures, Functions and loops

Case study:- online food ordering system
objective:- The 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, 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.

```
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(20), foreign key (order-ID) References order table (order-ID));
```

```
CREATE TABLE Menu-Item (Item-ID Number primary key, Item-name  

VARCHAR(100) price number (10,2));
```

```
INSERT INTO ordertable values (1, 101, TO_DATE ('2024-01-01',  

'YY-MM-DD'), 250.50, 'Pending');
```

```
Insert into ordertable values (2, 102, 50 - Data ('2024-03-03') 4444 -  

MM - DD) '400.75, 'Paid');
```

```
Insert into ordertable 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 2:- Create a procedure
 Create or Replace procedure update-payment-status (p-order-ID IN
 Number, p-new-status IN VARCHAR AS Begin Update ordertable
 Number, p-new-status WHERE order-ID = p-order-ID;
 Set payment-status = p-New-status;

Commit;
 DBMS_OUTPUT.PUT_LINE ('Payment status updated for order ID: ' || P_order
 -ID); successfully)

End;

1
Expected output:-

procedure created

Step 3:- 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

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_REVENUE RETURN NUMBER AS

V_TOTAL - REVENUE NUMBER;

BEGIN

SELECT SUM(ORDER_TO_TOT) INTO V_TOTAL FROM

ORDER TABLE;

RETURN V_TOTAL - REVENUE;

END;

Expected output:-

Function created

Step 2:- Execution

GET_TOTAL_REVENUE()

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Query 3:- Loop: mark All undelivered 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	25/12/26

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