PL/SQL Exercises

**Exercise 1: Control Structures**

**Scenario 1:**

The bank wants to apply a discount to loan interest rates for customers above 60 years old.

* + Question: Write a PL/SQL block that loops through all customers, checks their age, and if they are above 60, apply a 1% discount to their current loan interest rates.

**PL/SQL QUERY :**

BEGIN

FOR rec IN (

SELECT customer\_id

FROM customers

WHERE age > 60

) LOOP

UPDATE loans

SET interest\_rate = interest\_rate - 0.01

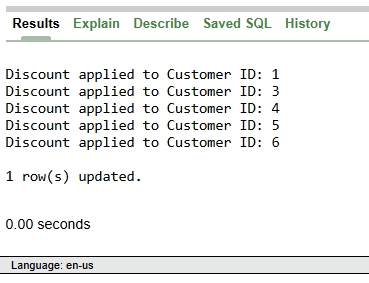
WHERE customer\_id = rec.customer\_id;

DBMS\_OUTPUT.PUT\_LINE('Discount applied to Customer ID: ' || rec.customer\_id);

END LOOP;

END;

**OUTPUT :**

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**Scenario 2:**

A customer can be promoted to VIP status based on their balance.

* + Question: Write a PL/SQL block that iterates through all customers and sets a flag IsVIP to TRUE for those with a balance over $10,000.

**PL/SQL QUERY :**

BEGIN

FOR rec IN (

SELECT customer\_id

FROM customers

WHERE balance > 10000

) LOOP

UPDATE customers

SET IsVIP = 'TRUE'

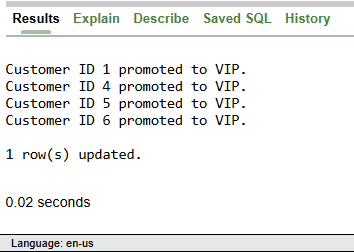
WHERE customer\_id = rec.customer\_id;

DBMS\_OUTPUT.PUT\_LINE('Customer ID ' || rec.customer\_id || ' promoted to VIP.');

END LOOP;

END;

**OUTPUT :**

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**Scenario 3**: The bank wants to send reminders to customers whose loans are due within the next 30 days.

* + Question: Write a PL/SQL block that fetches all loans due in the next 30 days and prints a reminder message for each customer.

**PL/SQL QUERY :**

BEGIN

FOR rec IN (

SELECT l.loan\_id, c.customer\_id, c.name, l.due\_date

FROM loans l

JOIN customers c ON l.customer\_id = c.customer\_id

WHERE l.due\_date BETWEEN SYSDATE AND SYSDATE + 30

) LOOP

DBMS\_OUTPUT.PUT\_LINE('Reminder: Loan ID ' || rec.loan\_id ||

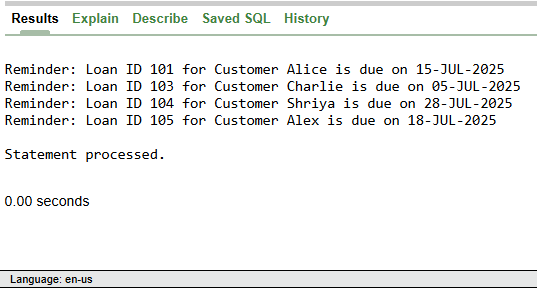
' for Customer ' || rec.name ||

' is due on ' || TO\_CHAR(rec.due\_date, 'DD-MON-YYYY'));

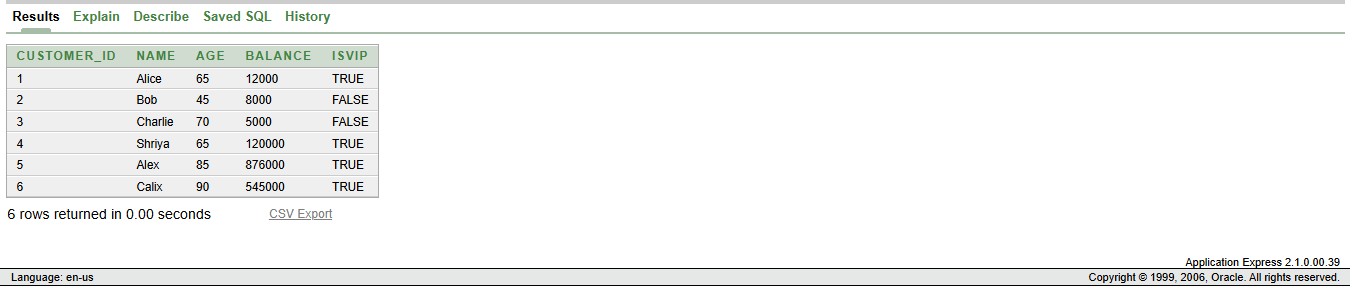
END LOOP;

END;

**OUTPUT :**

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**SELECT \* FROM customers;**

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**SELECT \* FROM loans;**

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