**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.

**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.

**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.

**Code: Scenario 1**

declare

cursor c01 is

select c.customerid,c.name, c.dob, l.interestrate from customers c

join loans l on c.customerid=l.customerid;

begin

for counter in c01

loop

if round((sysdate-counter.dob)/365)>60 then

update loans

set interestrate = 0.99\*counter.interestrate where customerid = counter.customerid;

dbms\_output.put\_line('Updated customer ' || counter.customerid ||' - New Interest Rate: ' || (0.99 \* counter.interestrate));

end if;

end loop;

commit;

end;

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**Code: Scenario 2**

ALTER TABLE customers ADD (IsVIP NUMBER(1) DEFAULT 0);

declare

cursor c02 is

select customerid, name, balance from customers;

begin

for counter in c02

loop

if counter.balance > 10000 then

update customers

set isVIP = 1 WHERE customerid = counter.customerid;

end if;

end loop;

commit;

end;

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**Code Scenario 3:**

declare

cursor c03 is

select c.customerid, c.name, l.startdate, l.enddate from customers c

join loans l on c.customerid=l.customerid;

begin

for counter in c03

loop

if round(counter.enddate-counter.startdate) <=30 then

dbms\_output.put\_line('Reminder for loan payment '|| 'Customer id' || counter.customerid ||'Name '|| counter.name);

end if;

end loop;

commit;

end;

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