**Exercise 2: Error Handling**

**Scenario 3:**

**CODE:**

**-- creation of Customers table**

CREATE TABLE Customers (

CustomerID NUMBER PRIMARY KEY,

Name VARCHAR2(100),

DOB DATE,

Balance NUMBER,

LastModified DATE

);

**-- Inserting values into Customers table**

BEGIN

INSERT INTO Customers VALUES (1, 'Alice Reddy', TO\_DATE('1950-05-10', 'YYYY-MM-DD'), 12000, SYSDATE);

INSERT INTO Customers VALUES (2, 'Bob Singh', TO\_DATE('1990-08-21', 'YYYY-MM-DD'), 8000, SYSDATE);

INSERT INTO Customers VALUES (3, 'Carol Mehta', TO\_DATE('1962-01-15', 'YYYY-MM-DD'), 15000, SYSDATE );

INSERT INTO Customers VALUES (4, 'David Rao', TO\_DATE('1985-12-01', 'YYYY-MM-DD'), 9500, SYSDATE);

INSERT INTO Customers VALUES (5, 'Esha Iyer', TO\_DATE('1945-03-25', 'YYYY-MM-DD'), 20000, SYSDATE);

END;

/

**-- creation of ErrorLog table**

CREATE TABLE ErrorLog (

ErrorID NUMBER GENERATED BY DEFAULT ON NULL AS IDENTITY PRIMARY KEY,

ErrorMessage VARCHAR2(400),

ErrorDate DATE

);

CREATE OR REPLACE PROCEDURE AddNewCustomer (

p\_CustomerID IN NUMBER, p\_Name IN VARCHAR2, p\_DOB IN DATE,

p\_Balance IN NUMBER) AS

v\_error\_msg VARCHAR2(400);

BEGIN

INSERT INTO Customers (CustomerID, Name, DOB, Balance, LastModified)

VALUES (p\_CustomerID, p\_Name, p\_DOB, p\_Balance, SYSDATE);

DBMS\_OUTPUT.PUT\_LINE('Customer inserted successfully.');

EXCEPTION

WHEN DUP\_VAL\_ON\_INDEX THEN

v\_error\_msg := 'Duplicate CustomerID: ' || TO\_CHAR(p\_CustomerID);

INSERT INTO ErrorLog (ErrorMessage, ErrorDate)

VALUES (v\_error\_msg, SYSDATE);

DBMS\_OUTPUT.PUT\_LINE('Error: ' || v\_error\_msg);

WHEN OTHERS THEN

v\_error\_msg := 'Other error for CustomerID ' || TO\_CHAR(p\_CustomerID) || ': ' || SQLERRM;

INSERT INTO ErrorLog (ErrorMessage, ErrorDate)

VALUES (v\_error\_msg, SYSDATE);

DBMS\_OUTPUT.PUT\_LINE('Unexpected error occurred: ' || v\_error\_msg);

END;

/

**-- Calling with a new customer (will succeed)**

BEGIN

AddNewCustomer(10, 'Tom cruse', TO\_DATE('1998-09-10', 'YYYY-MM-DD'), 20000);

END;

/

**-- Calling with an existing ID (will give log error)**

BEGIN

AddNewCustomer(1, 'Duplicate Alice', TO\_DATE('1980-01-01', 'YYYY-MM-DD'), 10000);

END;

/

**OUTPUT:**

Output for **Calling for new customer** is:

A screenshot of a computer

AI-generated content may be incorrect.

Output for **Calling existing customers** is:

A screenshot of a computer

AI-generated content may be incorrect.