**Exercise 5: Triggers**

Scenario 1: Update Last Modified Date

CREATE OR REPLACE TRIGGER UpdateCustomerLastModified

BEFORE UPDATE ON Customers

FOR EACH ROW

BEGIN

:NEW.LastModified := SYSDATE;

END;

/

Scenario 2: Maintain an Audit Log for Transactions

CREATE OR REPLACE TRIGGER LogTransaction

AFTER INSERT ON Transactions

FOR EACH ROW

BEGIN

INSERT INTO AuditLog (TransactionID, ActionDate, ActionType, Amount)

VALUES (:NEW.TransactionID, SYSDATE, 'INSERT', :NEW.Amount);

END;

/

Scenario 3: Enforce Business Rules on Transactions

CREATE OR REPLACE TRIGGER CheckTransactionRules

BEFORE INSERT ON Transactions

FOR EACH ROW

BEGIN

IF :NEW.TransactionType = 'WITHDRAWAL' THEN

IF :NEW.Amount > (SELECT balance FROM accounts WHERE account\_id = :NEW.AccountID) THEN

RAISE\_APPLICATION\_ERROR(-20001, 'Insufficient balance.');

END IF;

ELSIF :NEW.TransactionType = 'DEPOSIT' AND :NEW.Amount <= 0 THEN

RAISE\_APPLICATION\_ERROR(-20002, 'Deposit must be positive.');

END IF;

END;

/