

Solution

Scenario: 1

```
CREATE OR REPLACE TRIGGER UpdateCustomerLastModified
  BEFORE UPDATE ON Customers
  FOR EACH ROW
  BEGIN
    :NEW.LastModified := SYSDATE;
  END;
/
```

Scenario: 2

```
CREATE TABLE AuditLog (
  LogID NUMBER GENERATED BY DEFAULT AS IDENTITY,
  TransactionID NUMBER,
  ActionType VARCHAR2(50),
  ActionDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
  Details VARCHAR2(4000)
);

CREATE OR REPLACE TRIGGER LogTransaction
  AFTER INSERT ON Transactions
  FOR EACH ROW
  BEGIN
    INSERT INTO AuditLog (TransactionID, ActionType, Details)
    VALUES (:NEW.TransactionID, 'INSERT', 'New transaction inserted
with ID: ' || :NEW.TransactionID);
  END;
/
```

Scenario: 3

```
CREATE OR REPLACE TRIGGER CheckTransactionRules
  BEFORE INSERT ON Transactions
  FOR EACH ROW
  BEGIN
    IF :NEW.transactiontype = 'WITHDRAWAL' THEN
      SELECT balance
      INTO :new.balance
      FROM accounts
      WHERE accountid = :NEW.accountid;
      IF :new.amount > :new.balance THEN
        RAISE_APPLICATION_ERROR(-20001, 'Insufficient funds');
```

```
        END IF;
    ELSIF :NEW.transactiontype = 'DEPOSIT' THEN
        IF :NEW.amount <= 0 THEN
            RAISE_APPLICATION_ERROR(-20002, 'Deposit amount must be
positive');
        END IF;
    END IF;
END;
/
```