

LAB 3

1. Create Schema and tables SQL's, also create the DDL scripts for table creation

i. Customer Classification Table

```
CREATE TABLE Customer_Classification (  
    CSTCL_ID INT PRIMARY KEY,  
    CSTCL_TYP VARCHAR(100),  
    CSTCL_TYP_VALUE VARCHAR(100),  
    CSTCL_EFCTV_DT DATE,  
    CSTCL_CRUD_VALUE CHAR(1),  
    CSTCL_USER_ID VARCHAR(100),  
    CSTCL_WS_ID VARCHAR(100),  
    CSTCL_PRGM_ID VARCHAR(100),  
    CSTCL_HOST_TS TIMESTAMP,  
    CSTCL_LOCAL_TS TIMESTAMP,  
    CSTCL_ACPT_TS TIMESTAMP,  
    CSTCL_ACPT_TS_UTC_OFS TIMESTAMP,  
    CSTCL_UUID VARCHAR(100) -- UUID for unique identification  
);
```

ii. Customer Identification Table

```
CREATE TABLE Customer_Identification (  
    CSTID_ID INT PRIMARY KEY,  
    CSTID_TYP INT, -- References CSTCL_ID  
    CSTID_ITEM VARCHAR(100),  
    CSTID_EFCTV_DT DATE,  
    FOREIGN KEY (CSTID_TYP) REFERENCES Customer_Classification(CSTCL_ID)  
);
```

iii. Customer Details Table

```
CREATE TABLE Customer_Details (  
    CSTMR_NO INT PRIMARY KEY,  
    CSTMR_TYP VARCHAR(50),  
    CSTMR_FULL_NAME VARCHAR(255),  
    CSTMR_DOB DATE,  
    CSTMR_STATUS VARCHAR(50),  
    CSTMR_CONTACT_NO VARCHAR(15),  
    CSTMR_MOBILE_NO VARCHAR(15),  
    CSTMR_EMAIL_ID VARCHAR(255),  
    CSTMR_COUNTRY_ORIG VARCHAR(100),  
    CSTMR_EFCTV_DT DATE  
);
```

iv. Customer Name Components Table

```
CREATE TABLE Customer_Name_Components (  
    CSTMR_ID INT,  
    CSTNM_COMPT_TYP INT, -- References CSTCL_ID  
    CSTNM_COMPT_VALUE VARCHAR(255),  
    CSTNM_EFCTV_DT DATE,  
    PRIMARY KEY (CSTMR_ID, CSTNM_COMPT_TYP),  
    FOREIGN KEY (CSTMR_ID) REFERENCES Customer_Details(CSTMR_NO) ON DELETE  
CASCADE,  
    FOREIGN KEY (CSTNM_COMPT_TYP) REFERENCES  
Customer_Classification(CSTCL_ID) ON DELETE CASCADE  
);
```

v. Customer Proof of Identity Table

```
CREATE TABLE Customer_Proof_of_Identity (  
    CSTMR_ID INT,  
    CSTPO_ID_TYP INT, -- References CSTCL_ID for ID type  
    CSTPO_TYP_VALUE VARCHAR(100),  
    CSTPO_START_DT DATE,  
    CSTPO_END_DT DATE,  
    CSTPO_EFCTV_DT DATE,  
    FOREIGN KEY (CSTMR_ID) REFERENCES Customer_Details(CSTMR_NO) ON DELETE  
CASCADE,  
    FOREIGN KEY (CSTPO_ID_TYP) REFERENCES  
Customer_Classification(CSTCL_ID) ON DELETE SET NULL  
);
```

vi. Customer Address Components Table

```
CREATE TABLE Customer_Address_Components (  
    CSTMR_ID INT,  
    CSTAD_COMPT_TYP INT, -- References CSTCL_ID for Address type  
    CSTAD_COMPT_VALUE VARCHAR(255),  
    CSTAD_EFCTV_DT DATE,  
    PRIMARY KEY (CSTMR_ID, CSTAD_COMPT_TYP),  
    FOREIGN KEY (CSTMR_ID) REFERENCES Customer_Details(CSTMR_NO) ON DELETE  
CASCADE,  
    FOREIGN KEY (CSTAD_COMPT_TYP) REFERENCES  
Customer_Classification(CSTCL_ID) ON DELETE CASCADE  
);
```

2. DML Operations on table created - SELECT, UPDATE and DELETE

Part 1: Adding dummy data to the tables

```
INSERT INTO Customer_Classification
VALUES (1, 'Individual', 'Basic', '2025-02-03', 'C', 'user1', 'ws1',
'prog1', CURRENT_TIMESTAMP, CURRENT_TIMESTAMP, CURRENT_TIMESTAMP,
CURRENT_TIMESTAMP, 'uuid123456');

INSERT INTO Customer_Identification
VALUES (1, 1, 'P123456789', '2025-02-03');

INSERT INTO Customer_Details
VALUES (12345, 'Individual', 'John Doe', '1990-01-01', 'Active',
'1234567890', '9876543210', 'johndoe@email.com', 'USA', '2025-02-03');

INSERT INTO Customer_Name_Components
VALUES (12345, 1, 'John', '2025-02-03');

INSERT INTO Customer_Proof_of_Identity
VALUES (12345, 1, 'P123456789', '2025-02-03', '2025-12-31', '2025-02-03');

INSERT INTO Customer_Address_Components
VALUES (12345, 1, '123 Main St', '2025-02-03');
```

Part 2: Selecting the tables to view the results

```
SELECT * FROM customer_classification;
SELECT * FROM customer_identification;
SELECT * FROM customer_details;
SELECT * FROM customer_name_components;
SELECT * FROM customer_proof_of_identity;
SELECT * FROM customer_address_components;
```

OUTPUT

1. Customer Classification Table

CSTCL_ID	CSTCL_TYP	CSTCL_TYP_VALUE	CSTCL_EFCTV_DT	CSTCL_CRUD_VALUE
1	Individual	Basic	03-02-2025	C
CSTCL_USER_ID	CSTCL_WS_ID	CSTCL_PRGM_ID	CSTCL_HOST_TS	CSTCL_LOCAL_TS
user1	ws1	prog1	03-02-2025 10:20	03-02-2025 10:20
CSTCL_ACPT_TS	CSTCL_ACPT_TS_UTC_OFS	CSTCL_UUID		
03-02-2025 10:20	03-02-2025 10:20	uuid123456		

2. Customer Identification Table

CSTID_ID	CSTID_TYP	CSTID_ITEM	CSTID_EFCTV_DT
1	1	P123456789	03-02-2025

3. Customer Details Table

CSTMN_NO	CSTMN_TYP	CSTMN_FULL_NAME	CSTMN_DOB
12345	Individual	John Doe	01-01-1990
CSTMN_STATUS	CSTMN_CONTACT_NO	CSTMN_MOBILE_NO	CSTMN_EMAIL_ID
Active	1234567890	9876543210	johndoe@email.com
CSTMN_COUNTRY_ORIG	CSTMN_EFCTV_DT		
USA	03-02-2025		

4. Customer Name Components Table

CSTMN_ID	CSTNM_COMPT_TYP	CSTNM_COMPT_VALUE	CSTNM_EFCTV_DT
12345	1	John	03-02-2025

5. Customer Proof of Identity Table

CSTMN_ID	CSTPO_ID_TYP	CSTPO_TYP_VALUE	CSTPO_START_DT	CSTPO_END_DT	CSTPO_EFCTV_DT
12345	1	P123456789	03-02-2025	31-12-2025	03-02-2025

6. Customer Address Components Table

CSTMR_ID	CSTAD_COMPT_TYP	CSTAD_COMPT_VALUE	CSTAD_EFCTV_DT
12345	1	123 Main St	03-02-2025