**Creating Tables**

**-- Create Category\_Details Table**

CREATE TABLE Category\_Details (

Category\_ID INT PRIMARY KEY,

Category\_Name VARCHAR(50)

);

-- **Create Book\_Details Table**

CREATE TABLE Book\_Details (

ISBN INT PRIMARY KEY,

Title VARCHAR(100),

Publication\_Year INT,

Language VARCHAR(50),

Category\_ID INT,

No\_Of\_Copies\_Actual INT,

No\_Of\_Copies\_Current INT,

FOREIGN KEY (Category\_ID) REFERENCES Category\_Details(Category\_ID)

);

**-- Create Author\_Details Table**

CREATE TABLE Author\_Details (

Author\_ID INT PRIMARY KEY,

Name VARCHAR(100),

Nationality VARCHAR(50)

);

**-- Create Publisher\_Details Table**

CREATE TABLE Publisher\_Details (

Publisher\_ID INT PRIMARY KEY,

Name VARCHAR(100),

Location VARCHAR(100)

);

**-- Create Staff\_Details Table**

CREATE TABLE Staff\_Details (

Staff\_ID INT PRIMARY KEY,

Name VARCHAR(100),

Is\_Admin BOOLEAN,

Role VARCHAR(100)

);

**-- Create Student\_Details Table**

CREATE TABLE Student\_Details (

Student\_ID INT PRIMARY KEY,

Name VARCHAR(100),

Gender VARCHAR(10),

Date\_Of\_Birth DATE,

Department VARCHAR(100),

Contact\_Number VARCHAR(20)

);

**-- Create Shelf\_Details Table**

CREATE TABLE Shelf\_Details (

Shelf\_ID INT PRIMARY KEY,

Floor VARCHAR(50)

);

**-- Create Borrower\_Details Table**

CREATE TABLE Borrower\_Details (

Borrower\_ID INT PRIMARY KEY,

Book\_ID INT,

Borrowed\_Date DATE,

Due\_Date DATE,

Returned\_Date DATE,

Issued\_by INT,

FOREIGN KEY (Book\_ID) REFERENCES Book\_Details(ISBN),

FOREIGN KEY (Issued\_by) REFERENCES Staff\_Details(Staff\_ID)

);

**-- Create Reservation\_Details Table**

CREATE TABLE Reservation\_Details (

Reservation\_ID INT PRIMARY KEY,

Borrower\_ID INT,

Book\_ID INT,

Reservation\_Date DATE,

Status VARCHAR(20),

FOREIGN KEY (Borrower\_ID) REFERENCES Student\_Details(Student\_ID),

FOREIGN KEY (Book\_ID) REFERENCES Book\_Details(ISBN)

);

**-- Create Transaction\_Details Table**

CREATE TABLE Transaction\_Details (

Transaction\_ID INT PRIMARY KEY,

Borrower\_ID INT,

Book\_ID INT,

Transaction\_Type VARCHAR(20),

Transaction\_Date DATE,

FOREIGN KEY (Borrower\_ID) REFERENCES Student\_Details(Student\_ID),

FOREIGN KEY (Book\_ID) REFERENCES Book\_Details(ISBN)

);

**Inserting Dummy Records:-**

**-- Insert into Category\_Details**

INSERT INTO Category\_Details (Category\_ID, Category\_Name) VALUES

(1, 'Science Fiction'),

(2, 'Fantasy'),

(3, 'Mystery'),

(4, 'Biography');

**-- Insert into Book\_Details**

INSERT INTO Book\_Details (ISBN, Title, Publication\_Year, Language, Category\_ID, No\_Of\_Copies\_Actual, No\_Of\_Copies\_Current) VALUES

(1001, 'Dune', 1965, 'English', 1, 10, 5),

(1002, 'Harry Potter and the Philosopher''s Stone', 1997, 'English', 2, 15, 10),

(1003, 'The Da Vinci Code', 2003, 'English', 3, 8, 8),

(1004, 'The Hobbit', 1937, 'English', 2, 12, 12),

(1005, '1984', 1949, 'English', 1, 20, 15),

(1006, 'To Kill a Mockingbird', 1960, 'English', 4, 10, 5),

(1007, 'Pride and Prejudice', 1813, 'English', 4, 10, 10),

(1008, 'The Catcher in the Rye', 1951, 'English', 4, 8, 8),

(1009, 'Lord of the Flies', 1954, 'English', 2, 10, 10),

(1010, 'The Great Gatsby', 1925, 'English', 4, 15, 15);

**-- Insert into Author\_Details**

INSERT INTO Author\_Details (Author\_ID, Name, Nationality) VALUES

(1, 'Frank Herbert', 'American'),

(2, 'J.K. Rowling', 'British'),

(3, 'Dan Brown', 'American'),

(4, 'J.R.R. Tolkien', 'British'),

(5, 'George Orwell', 'British'),

(6, 'Harper Lee', 'American'),

(7, 'Jane Austen', 'British'),

(8, 'J.D. Salinger', 'American'),

(9, 'William Golding', 'British'),

(10, 'F. Scott Fitzgerald', 'American');

**-- Insert into Publisher\_Details**

INSERT INTO Publisher\_Details (Publisher\_ID, Name, Location) VALUES

(1, 'Ace Books', 'USA'),

(2, 'Bloomsbury Publishing', 'UK'),

(3, 'Doubleday', 'USA'),

(4, 'Allen & Unwin', 'UK'),

(5, 'Secker & Warburg', 'UK'),

(6, 'J. B. Lippincott & Co.', 'USA'),

(7, 'Thomas Egerton', 'UK'),

(8, 'Little, Brown and Company', 'USA'),

(9, 'Faber and Faber', 'UK'),

(10, 'Charles Scribner''s Sons', 'USA');

**-- Insert into Staff\_Details**

INSERT INTO Staff\_Details (Staff\_ID, Name, Is\_Admin, Role) VALUES

(1, 'Alice', true, 'Librarian'),

(2, 'Bob', false, 'Assistant Librarian'),

(3, 'Charlie', true, 'Admin Officer'),

(4, 'Diana', false, 'Library Assistant');

**-- Insert into Student\_Details**

INSERT INTO Student\_Details (Student\_ID, Name, Gender, Date\_Of\_Birth, Department, Contact\_Number) VALUES

(1, 'John Doe', 'Male', '2000-01-15', 'Computer Science', '123-456-7890'),

(2, 'Jane Smith', 'Female', '1999-05-20', 'Literature', '987-654-3210'),

(3, 'Michael Johnson', 'Male', '2001-03-10', 'History', '555-123-4567'),

(4, 'Emily Brown', 'Female', '2000-12-05', 'Mathematics', '111-222-3333'),

(5, 'William Wilson', 'Male', '2001-08-25', 'Physics', '999-888-7777');

-- Insert into Shelf\_Details

INSERT INTO Shelf\_Details (Shelf\_ID, Floor) VALUES

(1, 'Ground Floor'),

(2, 'First Floor'),

(3, 'Second Floor'),

(4, 'Third Floor'),

(5, 'Basement');

-- Insert into Borrower\_Details

INSERT INTO Borrower\_Details (Borrower\_ID, Book\_ID, Borrowed\_Date, Due\_Date, Returned\_Date, Issued\_by) VALUES

(1, 1001, '2023-05-10', '2023-05-24', '2023-05-24', 1),

(2, 1002, '2023-05-12', '2023-05-26', NULL, 2),

(3, 1003, '2023-05-15', '2023-05-29', NULL, 3),

(4, 1004, '2023-05-18', '2023-06-01', NULL, 1),

(5, 1005, '2023-05-20', '2023-06-03', NULL, 2);

**-- Insert into Reservation\_Details**

INSERT INTO Reservation\_Details (Reservation\_ID, Borrower\_ID, Book\_ID, Reservation\_Date, Status) VALUES

(1, 1, 1003, '2023-05-08', 'pending'),

(2, 2, 1004, '2023-05-10', 'fulfilled'),

(3, 3, 1005, '2023-05-12', 'pending'),

(4, 4, 1006, '2023-05-15', 'fulfilled'),

(5, 5, 1007, '2023-05-18', 'pending');

**-- Insert into Transaction\_Details**

INSERT INTO Transaction\_Details (Transaction\_ID, Borrower\_ID, Book\_ID, Transaction\_Type, Transaction\_Date) VALUES

(1, 1, 1001, 'borrow', '2023-05-10'),

(2, 2, 1002, 'borrow', '2023-05-12'),

(3, 3, 1003, 'borrow', '2023-05-15'),

(4, 4, 1004, 'borrow', '2023-05-18'),

(5, 5, 1005, 'borrow', '2023-05-20');