Assignment 1: Creating & Manipulating a Database

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CS204: Database Programming

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PART A

A. Write the SQL statements in order to create the tables for the database. Use the Entity Relationship Diagram (ERD) of the database shown in Figure 1. For simplicity, we are assuming in this project that a book cannot be written by more than one author. You need to create the tables as well as the required constraints, including the keys (primary and foreign), and the relationships between tables.
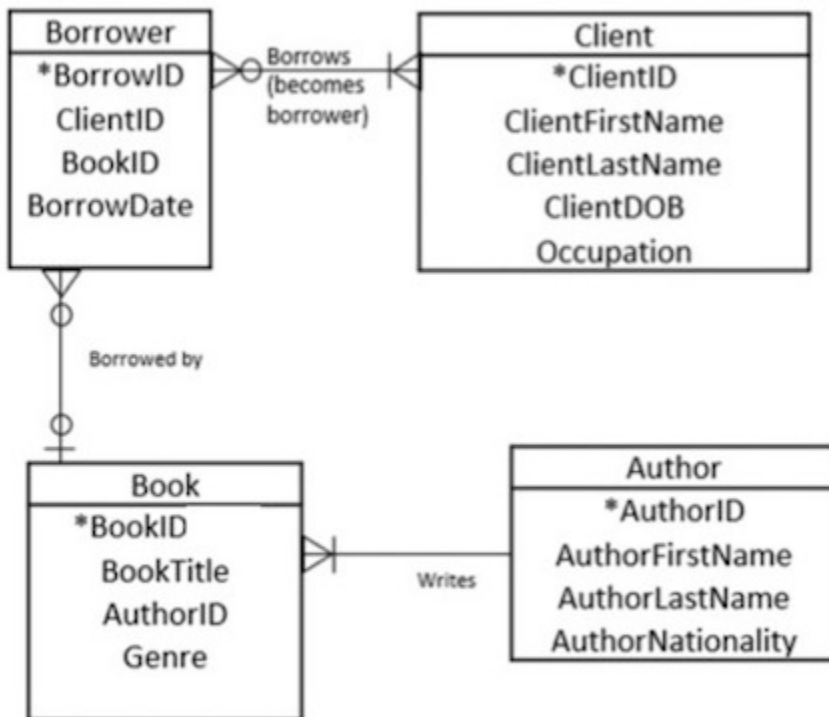
#Create an Author table with AuthorID as the Primary Key.

CREATE TABLE IF NOT EXISTS Author (

AuthorID INT NOT NULL,

AuthorFirstName VARCHAR(35) NOT NULL,

AuthorLastName VARCHAR(35) NOT NULL,

AuthorNationality VARCHAR(25),

PRIMARY KEY(AuthorID)

);

/*Create a Book table with BookID as the Primary Key and BookAuthor as a foreign key referencing AuthorID in the Author table.*/

```
CREATE TABLE IF NOT EXISTS Book (

BookID INT NOT NULL,

BookTitle VARCHAR(50) NOT NULL,

BookAuthor INT NOT NULL NOT NULL,

Genre VARCHAR(20),

PRIMARY KEY(BookID),

FOREIGN KEY(BookAuthor) REFERENCES Author(AuthorID)

);
```

#Create a Client table with ClientID as the Primary Key.

```
CREATE TABLE IF NOT EXISTS Client (

ClientID int NOT NULL,

ClientFirstName VARCHAR(35) NOT NULL,

ClientLastName VARCHAR(35) NOT NULL,

ClientDoB YEAR,

Occupation VARCHAR(50),

PRIMARY KEY(ClientID)

);
```

/*Create a Borrower table with BorrowID as the Primary Key. ClientID is a foreign key referencing ClientID in the client table and BookID is a foreign key referencing BookID in the Book table.*/

```
CREATE TABLE IF NOT EXISTS Borrower (

BorrowID int NOT NULL,
```

```sql
ClientID int NOT NULL,

BookID int NOT NULL,

BorrowDate DATE,

PRIMARY KEY(BorrowID),

FOREIGN KEY(ClientID) REFERENCES Client(ClientID),

FOREIGN KEY(BookID) REFERENCES Book(BookID)

);
```

#Create indexes for frequently used columns and conditions.

#Create indexes for BorrowID and BorrowDate from the Borrower table.

```sql
CREATE INDEX borrowId_index ON Borrower(BorrowID);

CREATE INDEX borrowDate_index ON Borrower(BorrowDate);
```

/*Create indexes for ClientID, ClientFirstName, and ClientLastName, and ClientFullName (this index contains the ClientFirstName and ClientLastName in one index) from the Client table.*/

```sql
CREATE INDEX clientId_index ON Client(ClientID);

CREATE INDEX clientFirstName_index ON Client(ClientFirstName);

CREATE INDEX clientLastName_index ON Client(ClientLastName);

CREATE INDEX clientFullName_index ON Client(ClientFirstName, ClientLastName);
```

#Create indexes for bookId, BookTitle, and Genre from the Book table.

```sql
CREATE INDEX bookId_index ON Book(BookID);

CREATE INDEX bookTitle_index ON Book(BookTitle);

CREATE INDEX genre_index ON Book(Genre);
```

/*Create indexes for the AuthorID, AuthorFirstName, AuthorLastName, and AuthorFullName (this index contains the AuthorFirstName and AuthorLastName.*/

CREATE INDEX authorID_index ON Author(AuthorID);

CREATE INDEX authorFirstName ON Author(AuthorFirstName);

CREATE INDEX authorLastName ON Author(AuthorLastName);

CREATE INDEX authorFullName ON Author(AuthorFirstName, AuthorLastName);

PART B

B. Populate your database with the sample set of data given to you in the tables below the assignment prompts.

This was a lot of data, so you could copy and paste each provided table into a Google Sheet or Excel spreadsheet. Then you would need to save each table as a .csv file and in MySQL Workbench you left click on each table to open "Table Data Import Wizard." If you followed the prompts, MySQL Workbench could populate the tables. However, this project required listing the INSERT statements for each, so they are listed below.

#To enter data into the Author Table.

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (1, 'Sofia', 'Smith', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (2, 'Maria', 'Brown', 'Brazil');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (3, 'Elena', 'Martin', 'Mexico');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (4, 'Zoe', 'Roy', 'France');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (5, 'Sebastian', 'Lavoie', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (6, 'Dylan', 'Garcia', 'Spain');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (7, 'Ian', 'Cruz', 'Mexico');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (8, 'Lucas', 'Smith', 'USA');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (9, 'Fabian', 'Wilson', 'USA');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (10, 'Liam', 'Taylor', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (11, 'William', 'Thomas', 'Great Britain');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (12, 'Logan', 'Moore', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (13, 'Oliver', 'Martin', 'France');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (14, 'Alysha', 'Thompson', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (15, 'Isabelle', 'Lee', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (16, 'Emily', 'Clark', 'USA');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (17, 'John', 'Young', 'China');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (18, 'David', 'Wright', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (19, 'Thomas', 'Scott', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (20, 'Helena', 'Adams', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (21, 'Sofia', 'Carter', 'USA');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (22, 'Liam', 'Parker', 'Canada');

INSERT INTO Author (AuthorId, AuthorFirstName, AuthorLastName, AuthorNationality)

VALUES (23, 'Emily', 'Murphy', 'USA');

#To enter data into the Book Table.

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (1, 'Build your database system', 1, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (2, 'The red wall', 2, 'Fiction');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (3, 'The perfect match', 3, 'Fiction');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (4, 'Digital Logic', 4, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (5, 'How to be a great lawyer', 5, 'Law');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (6, 'Manage successful negotiations', 6, 'Society');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (7, 'Pollution today', 7, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (8, 'A gray park', 2, 'Fiction');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (9, 'How to be rich in one year', 8, 'Humor');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (10, 'Their bright fate', 9, 'Fiction');

```sql
INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (11, 'Black lines', 10, 'Fiction');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (12, 'History of theater', 11, 'Literature');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (13, 'Electrical transformers', 12, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (14, 'Build your big data system', 1, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (15, 'Right and left', 13, 'Children');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (16, 'Programming using Python', 1, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (17, 'Computer networks', 14, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (18, 'Performance evaluation', 15, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (19, 'Daily exercise', 16, 'Well being');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (20, 'The silver uniform', 17, 'Fiction');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (21, 'Industrial revolution', 18, 'History');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (22, 'Green nature', 19, 'Well being');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)
```

VALUES (23, 'Perfect football', 20, 'Well being');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (24, 'The chocolate love', 21, 'Humor');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (25, 'Director and leader', 22, 'Society');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (26, 'Play football every week', 20, 'well being');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (27, 'Maya the bee', 13, 'Children');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (28, 'Perfect rugby', 20, 'Well being');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (29, 'The end', 23, 'Fiction');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (30, 'Computer security', 1, 'Science');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (31, 'Participate', 22, 'Society');

INSERT INTO Book (BookId, BookTitle, BookAuthor, Genre)

VALUES (32, 'Positive figures', 3, 'Fiction');

#To enter data into the Client Table.

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (1, 'Kaiden', 'Hill', 2006, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (2, 'Alina', 'Morton', 2010, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (3, 'Fania', 'Brooks', 1983, 'Food Scientist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (4, 'Courtney', 'Jensen', 2006, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (5, 'Brittany', 'Hill', 1983, 'Firefighter');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (6, 'Max', 'Rogers', 2005, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (7, 'Margaret', 'McCarthy', 1981, 'School Psychologist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (8, 'Julie', 'McCarthy', 1973, 'Professor');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (9, 'Ken', 'McCarthy', 1974, 'Securities Clerk');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (10, 'Britany', 'O\'Quinn', 1984, 'Violinist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (11, 'Conner', 'Gardner', 1998, 'Licensed Massage Therapist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (12, 'Mya', 'Austin', 1960, 'Parquet Floor Layer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (13, 'Thierry', 'Rogers', 2004, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (14, 'Eloise', 'Rogers', 1984, 'Computer Security Manager');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (15, 'Gerard', 'Jackson', 1979, 'Oil Exploration Engineer');

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INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (16, 'Randy', 'Day', 1986, 'Aircraft Electrician');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (17, 'Jodie', 'Page', 1990, 'Manufacturing Director');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (18, 'Coral', 'Rice', 1996, 'Window Washer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (19, 'Ayman', 'Austin', 2002, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (20, 'Jaxson', 'Austin', 1999, 'Repair Worker');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (21, 'Joel', 'Austin', 1973, 'Police Officer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (22, 'Alina', 'Austin', 2010, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (23, 'Elin', 'Austin', 1962, 'Payroll Clerk');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (24, 'Ophelia', 'Wolf', 2004, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (25, 'Eliot', 'McGuire', 1967, 'Dentist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (26, 'Peter', 'McKinney', 1968, 'Professor');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (27, 'Annabella', 'Henry', 1974, 'Nurse');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
```

VALUES (28, 'Anastasia', 'Baker', 2001, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (29, 'Tyler', 'Baker', 1984, 'Police Officer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (30, 'Lilian', 'Ross', 1983, 'Insurance Agent');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (31, 'Thierry', 'Arnold', 1975, 'Bus Driver');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (32, 'Angelina', 'Rowe', 1979, 'Firefighter');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (33, 'Marcia', 'Rowe', 1974, 'Health Educator');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (34, 'Martin', 'Rowe', 1976, 'Ship Engineer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (35, 'Adeline', 'Rowe', 2005, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (36, 'Colette', 'Rowe', 1963, 'Professor');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (37, 'Diane', 'Clark', 1975, 'Payroll Clerk');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (38, 'Caroline', 'Clark', 1960, 'Dentist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (39, 'Dalton', 'Clayton', 1982, 'Police Officer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (40, 'Steve', 'Clayton', 1990, 'Bus Driver');

```sql
INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (41, 'Melanie', 'Clayton', 1987, 'Computer Engineer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (42, 'Alana', 'Wilson', 2007, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (43, 'Carson', 'Byrne', 1995, 'Food Scientist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (44, 'Conrad', 'Byrne', 2007, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (45, 'Ryan', 'Porter', 2008, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (46, 'Elin', 'Porter', 1978, 'Computer Programmer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (47, 'Tyler', 'Harvey', 2007, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (48, 'Arya', 'Harvey', 2008, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (49, 'Serena', 'Harvey', 1978, 'School Teacher');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (50, 'Lilly', 'Franklin', 1976, 'Doctor');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (51, 'Mai', 'Franklin', 1994, 'Dentist');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (52, 'John', 'Franklin', 1999, 'Firefighter');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
```

```
VALUES (53, 'Judy', 'Franklin', 1995, 'Firefighter');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (54, 'Katy', 'Lloyd', 1992, 'School Teacher');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (55, 'Tamara', 'Allen', 1963, 'Ship Engineer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (56, 'Maxim', 'Lyons', 1985, 'Police Officer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (57, 'Allan', 'Lyons', 1983, 'Computer Engineer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (58, 'Marc', 'Harris', 1980, 'School Teacher');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (59, 'Elin', 'Young', 2009, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (60, 'Diana', 'Young', 2008, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (61, 'Diane', 'Young', 2006, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (62, 'Alana', 'Bird', 2003, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (63, 'Anna', 'Becker', 1979, 'Security Agent');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (64, 'Katie', 'Grant', 1977, 'Manager');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (65, 'Joan', 'Grant', 2010, 'Student');
```

```sql
INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (66, 'Bryan', 'Bell', 2001, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (67, 'Belle', 'Miller', 1970, 'Professor');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (68, 'Peggy', 'Stevens', 1990, 'Bus Driver');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (69, 'Steve', 'Williamson', 1975, 'HR Clerk');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (70, 'Tyler', 'Williamson', 1999, 'Doctor');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (71, 'Izabelle', 'Williamson', 1990, 'Systems Analyst');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (72, 'Annabel', 'Williamson', 1960, 'Cashier');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (73, 'Mohamed', 'Waters', 1966, 'Insurance Agent');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (74, 'Marion', 'Newman', 1970, 'Computer Programmer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (75, 'Ada', 'Williams', 1986, 'Computer Programmer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (76, 'Sean', 'Scott', 1983, 'Bus Driver');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
VALUES (77, 'Farrah', 'Scott', 1974, 'Ship Engineer');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)
```

VALUES (78, 'Christine', 'Lambert', 1973, 'School Teacher');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (79, 'Alysha', 'Lambert', 2007, 'Student');

INSERT INTO Client (ClientId, ClientFirstName, ClientLastName, ClientDoB, Occupation)

VALUES (80, 'Maia', 'Grant', 1984, 'School Teacher');

#To enter data into the Borrower Table with the required date format of DD-MM-YYYY.

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (1, 35, 17, STR_TO_DATE("20/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (2, 1, 3, STR_TO_DATE("19/04/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (3, 42, 8, STR_TO_DATE("03/10/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (4, 62, 16, STR_TO_DATE("05/04/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (5, 53, 13, STR_TO_DATE("17/01/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (6, 33, 15, STR_TO_DATE("26/11/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (7, 40, 14, STR_TO_DATE("21/01/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (8, 64, 2, STR_TO_DATE("10/09/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (9, 56, 30, STR_TO_DATE("02/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

```sql
VALUES (10, 23, 2, STR_TO_DATE("28/06/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (11, 46, 19, STR_TO_DATE("18/11/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (12, 61, 20, STR_TO_DATE("24/11/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (13, 58, 7, STR_TO_DATE("17/06/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (14, 46, 16, STR_TO_DATE("12/02/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (15, 80, 21, STR_TO_DATE("18/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (16, 51, 23, STR_TO_DATE("01/09/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (17, 49, 18, STR_TO_DATE("28/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (18, 43, 18, STR_TO_DATE("04/11/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (19, 30, 2, STR_TO_DATE("10/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (20, 48, 24, STR_TO_DATE("13/05/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (21, 71, 5, STR_TO_DATE("05/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (22, 35, 3, STR_TO_DATE("03/07/2016", "%d/%m/%Y"));
```

```
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (23, 57, 1, STR_TO_DATE("17/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (24, 23, 25, STR_TO_DATE("16/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (25, 20, 12, STR_TO_DATE("24/07/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (26, 25, 7, STR_TO_DATE("31/01/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (27, 72, 29, STR_TO_DATE("10/04/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (28, 74, 20, STR_TO_DATE("31/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (29, 53, 14, STR_TO_DATE("20/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (30, 32, 10, STR_TO_DATE("24/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (31, 12, 15, STR_TO_DATE("25/04/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (32, 77, 13, STR_TO_DATE("09/06/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (33, 30, 4, STR_TO_DATE("24/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (34, 37, 24, STR_TO_DATE("14/01/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
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VALUES (35, 27, 26, STR_TO_DATE("05/06/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (36, 1, 16, STR_TO_DATE("06/05/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (37, 21, 9, STR_TO_DATE("19/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (38, 69, 28, STR_TO_DATE("29/03/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (39, 17, 19, STR_TO_DATE("14/03/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (40, 8, 9, STR_TO_DATE("22/04/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (41, 63, 18, STR_TO_DATE("25/01/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (42, 65, 20, STR_TO_DATE("10/10/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (43, 51, 19, STR_TO_DATE("28/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (44, 23, 12, STR_TO_DATE("25/01/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (45, 17, 4, STR_TO_DATE("18/04/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (46, 68, 5, STR_TO_DATE("06/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (47, 46, 13, STR_TO_DATE("30/09/2017", "%d/%m/%Y"));
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INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (48, 15, 13, STR_TO_DATE("05/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (49, 11, 19, STR_TO_DATE("14/12/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (50, 78, 15, STR_TO_DATE("26/01/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (51, 47, 9, STR_TO_DATE("03/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (52, 68, 7, STR_TO_DATE("26/05/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (53, 37, 26, STR_TO_DATE("06/02/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (54, 48, 27, STR_TO_DATE("30/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (55, 9, 21, STR_TO_DATE("21/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (56, 29, 8, STR_TO_DATE("01/04/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (57, 64, 18, STR_TO_DATE("29/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (58, 61, 26, STR_TO_DATE("21/02/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (59, 39, 28, STR_TO_DATE("26/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
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VALUES (60, 73, 18, STR_TO_DATE("22/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (61, 11, 13, STR_TO_DATE("17/01/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (62, 45, 6, STR_TO_DATE("20/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (63, 33, 13, STR_TO_DATE("18/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (64, 10, 17, STR_TO_DATE("06/06/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (65, 28, 18, STR_TO_DATE("17/02/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (66, 51, 3, STR_TO_DATE("09/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (67, 29, 2, STR_TO_DATE("18/09/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (68, 28, 30, STR_TO_DATE("14/09/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (69, 74, 20, STR_TO_DATE("12/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (70, 15, 22, STR_TO_DATE("14/01/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (71, 57, 8, STR_TO_DATE("20/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (72, 2, 5, STR_TO_DATE("18/01/2015", "%d/%m/%Y"));

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INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (73, 74, 12, STR_TO_DATE("14/04/2018", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (74, 51, 10, STR_TO_DATE("25/02/2016", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (75, 25, 17, STR_TO_DATE("24/02/2015", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (76, 45, 21, STR_TO_DATE("10/02/2017", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (77, 27, 25, STR_TO_DATE("03/08/2016", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (78, 32, 28, STR_TO_DATE("15/06/2016", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (79, 71, 21, STR_TO_DATE("21/05/2017", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (80, 75, 26, STR_TO_DATE("03/05/2016", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (81, 56, 32, STR_TO_DATE("23/12/2015", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (82, 26, 32, STR_TO_DATE("16/05/2015", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (83, 66, 32, STR_TO_DATE("30/05/2015", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (84, 57, 18, STR_TO_DATE("15/09/2017", "%d/%m/%Y"));
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

VALUES (85, 40, 15, STR_TO_DATE("02/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (86, 65, 4, STR_TO_DATE("17/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (87, 54, 7, STR_TO_DATE("19/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (88, 29, 4, STR_TO_DATE("22/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (89, 44, 9, STR_TO_DATE("31/12/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (90, 56, 31, STR_TO_DATE("13/06/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (91, 17, 4, STR_TO_DATE("01/04/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (92, 35, 16, STR_TO_DATE("19/07/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (93, 22, 18, STR_TO_DATE("22/06/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (94, 39, 24, STR_TO_DATE("29/05/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (95, 63, 14, STR_TO_DATE("20/01/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (96, 53, 21, STR_TO_DATE("31/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (97, 40, 9, STR_TO_DATE("10/07/2016", "%d/%m/%Y"));

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INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (98, 52, 4, STR_TO_DATE("05/04/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (99, 27, 20, STR_TO_DATE("04/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (100, 72, 29, STR_TO_DATE("06/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (101, 49, 16, STR_TO_DATE("19/12/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (102, 6, 12, STR_TO_DATE("04/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (103, 74, 31, STR_TO_DATE("27/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (104, 48, 32, STR_TO_DATE("29/06/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (105, 69, 2, STR_TO_DATE("27/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (106, 60, 32, STR_TO_DATE("29/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (107, 45, 22, STR_TO_DATE("12/06/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (108, 42, 15, STR_TO_DATE("14/05/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (109, 79, 8, STR_TO_DATE("13/10/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
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VALUES (110, 70, 18, STR_TO_DATE("04/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (111, 34, 8, STR_TO_DATE("06/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (112, 43, 8, STR_TO_DATE("19/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (113, 42, 32, STR_TO_DATE("20/04/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (114, 67, 5, STR_TO_DATE("06/03/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (115, 80, 25, STR_TO_DATE("23/06/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (116, 54, 11, STR_TO_DATE("03/05/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (117, 34, 28, STR_TO_DATE("30/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (118, 65, 20, STR_TO_DATE("26/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (119, 61, 19, STR_TO_DATE("05/01/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (120, 38, 12, STR_TO_DATE("17/01/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (121, 51, 4, STR_TO_DATE("13/05/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (122, 7, 16, STR_TO_DATE("17/03/2016", "%d/%m/%Y"));
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INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (123, 46, 16, STR_TO_DATE("25/11/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (124, 75, 30, STR_TO_DATE("12/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (125, 72, 32, STR_TO_DATE("12/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (126, 44, 17, STR_TO_DATE("15/06/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (127, 68, 15, STR_TO_DATE("21/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (128, 21, 1, STR_TO_DATE("19/06/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (129, 14, 25, STR_TO_DATE("10/10/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (130, 68, 21, STR_TO_DATE("27/05/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (131, 35, 20, STR_TO_DATE("19/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (132, 16, 27, STR_TO_DATE("08/08/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (133, 79, 31, STR_TO_DATE("07/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (134, 14, 17, STR_TO_DATE("28/04/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

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VALUES (135, 29, 28, STR_TO_DATE("11/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (136, 41, 4, STR_TO_DATE("08/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (137, 42, 3, STR_TO_DATE("23/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (138, 45, 3, STR_TO_DATE("10/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (139, 36, 16, STR_TO_DATE("19/07/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (140, 36, 30, STR_TO_DATE("07/08/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (141, 54, 32, STR_TO_DATE("14/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (142, 61, 15, STR_TO_DATE("28/03/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (143, 1, 13, STR_TO_DATE("17/05/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (144, 43, 1, STR_TO_DATE("14/05/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (145, 37, 14, STR_TO_DATE("30/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (146, 62, 17, STR_TO_DATE("19/09/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (147, 50, 22, STR_TO_DATE("02/12/2016", "%d/%m/%Y"));
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INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (148, 45, 1, STR_TO_DATE("24/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (149, 32, 17, STR_TO_DATE("10/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (150, 13, 28, STR_TO_DATE("14/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (151, 15, 9, STR_TO_DATE("11/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (152, 10, 19, STR_TO_DATE("29/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (153, 66, 3, STR_TO_DATE("27/11/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (154, 68, 29, STR_TO_DATE("12/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (155, 21, 14, STR_TO_DATE("27/06/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (156, 35, 9, STR_TO_DATE("22/01/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (157, 17, 24, STR_TO_DATE("25/08/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (158, 40, 21, STR_TO_DATE("09/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
VALUES (159, 1, 24, STR_TO_DATE("28/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

VALUES (160, 70, 27, STR_TO_DATE("10/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (161, 80, 26, STR_TO_DATE("24/04/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (162, 29, 5, STR_TO_DATE("18/10/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (163, 76, 12, STR_TO_DATE("25/04/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (164, 22, 4, STR_TO_DATE("24/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (165, 2, 2, STR_TO_DATE("26/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (166, 35, 13, STR_TO_DATE("28/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (167, 40, 8, STR_TO_DATE("02/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (168, 68, 9, STR_TO_DATE("03/01/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (169, 32, 5, STR_TO_DATE("13/11/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (170, 34, 17, STR_TO_DATE("15/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (171, 34, 16, STR_TO_DATE("13/04/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (172, 80, 30, STR_TO_DATE("13/10/2016", "%d/%m/%Y"));

```sql
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (173, 20, 32, STR_TO_DATE("17/11/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (174, 36, 10, STR_TO_DATE("01/09/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (175, 78, 12, STR_TO_DATE("27/06/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (176, 57, 8, STR_TO_DATE("22/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (177, 75, 11, STR_TO_DATE("27/06/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (178, 71, 10, STR_TO_DATE("01/08/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (179, 48, 22, STR_TO_DATE("29/09/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (180, 19, 16, STR_TO_DATE("21/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (181, 79, 30, STR_TO_DATE("20/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (182, 70, 13, STR_TO_DATE("16/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (183, 30, 6, STR_TO_DATE("10/02/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (184, 45, 12, STR_TO_DATE("12/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

```
VALUES (185, 30, 27, STR_TO_DATE("23/11/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (186, 26, 3, STR_TO_DATE("13/08/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (187, 66, 6, STR_TO_DATE("14/01/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (188, 47, 15, STR_TO_DATE("10/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (189, 53, 30, STR_TO_DATE("08/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (190, 80, 16, STR_TO_DATE("31/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (191, 70, 13, STR_TO_DATE("03/02/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (192, 14, 25, STR_TO_DATE("27/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (193, 46, 22, STR_TO_DATE("13/01/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (194, 30, 32, STR_TO_DATE("06/08/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (195, 60, 14, STR_TO_DATE("27/11/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (196, 14, 13, STR_TO_DATE("23/05/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (197, 71, 15, STR_TO_DATE("22/06/2016", "%d/%m/%Y"));
```

```
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (198, 38, 21, STR_TO_DATE("27/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (199, 69, 30, STR_TO_DATE("29/04/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (200, 49, 31, STR_TO_DATE("03/06/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (201, 28, 28, STR_TO_DATE("29/05/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (202, 49, 3, STR_TO_DATE("30/08/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (203, 75, 1, STR_TO_DATE("29/10/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (204, 78, 3, STR_TO_DATE("12/05/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (205, 43, 18, STR_TO_DATE("25/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (206, 27, 21, STR_TO_DATE("22/02/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (207, 64, 22, STR_TO_DATE("03/04/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (208, 21, 11, STR_TO_DATE("09/12/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (209, 66, 29, STR_TO_DATE("20/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

VALUES (210, 45, 13, STR_TO_DATE("15/04/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (211, 48, 30, STR_TO_DATE("31/01/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (212, 20, 25, STR_TO_DATE("20/12/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (213, 41, 20, STR_TO_DATE("29/01/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (214, 51, 12, STR_TO_DATE("05/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (215, 5, 1, STR_TO_DATE("12/04/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (216, 40, 3, STR_TO_DATE("24/02/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (217, 79, 4, STR_TO_DATE("27/06/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (218, 15, 10, STR_TO_DATE("01/11/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (219, 42, 22, STR_TO_DATE("28/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (220, 17, 9, STR_TO_DATE("29/01/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (221, 38, 13, STR_TO_DATE("09/05/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (222, 79, 2, STR_TO_DATE("06/12/2017", "%d/%m/%Y"));

```sql
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (223, 74, 3, STR_TO_DATE("07/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (224, 46, 8, STR_TO_DATE("05/06/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (225, 78, 22, STR_TO_DATE("11/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (226, 45, 2, STR_TO_DATE("20/04/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (227, 72, 31, STR_TO_DATE("11/11/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (228, 18, 17, STR_TO_DATE("21/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (229, 29, 3, STR_TO_DATE("13/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (230, 66, 11, STR_TO_DATE("05/06/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (231, 36, 16, STR_TO_DATE("28/04/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (232, 26, 2, STR_TO_DATE("23/10/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (233, 32, 1, STR_TO_DATE("31/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (234, 62, 14, STR_TO_DATE("25/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

```
VALUES (235, 12, 4, STR_TO_DATE("08/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (236, 38, 32, STR_TO_DATE("24/02/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (237, 29, 16, STR_TO_DATE("28/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (238, 36, 25, STR_TO_DATE("07/05/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (239, 76, 7, STR_TO_DATE("13/06/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (240, 28, 16, STR_TO_DATE("15/08/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (241, 60, 13, STR_TO_DATE("26/08/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (242, 8, 3, STR_TO_DATE("28/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (243, 25, 1, STR_TO_DATE("30/07/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (244, 62, 29, STR_TO_DATE("24/08/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (245, 51, 8, STR_TO_DATE("01/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (246, 27, 23, STR_TO_DATE("08/02/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (247, 69, 12, STR_TO_DATE("25/06/2018", "%d/%m/%Y"));
```

```
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (248, 51, 12, STR_TO_DATE("04/07/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (249, 7, 4, STR_TO_DATE("01/05/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (250, 31, 15, STR_TO_DATE("29/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (251, 14, 23, STR_TO_DATE("15/01/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (252, 14, 1, STR_TO_DATE("21/05/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (253, 39, 25, STR_TO_DATE("26/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (254, 79, 24, STR_TO_DATE("31/05/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (255, 40, 15, STR_TO_DATE("18/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (256, 51, 13, STR_TO_DATE("13/04/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (257, 61, 1, STR_TO_DATE("11/02/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (258, 15, 24, STR_TO_DATE("02/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (259, 10, 22, STR_TO_DATE("21/01/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

```
VALUES (260, 67, 10, STR_TO_DATE("08/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (261, 79, 11, STR_TO_DATE("11/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (262, 19, 32, STR_TO_DATE("04/05/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (263, 35, 11, STR_TO_DATE("01/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (264, 27, 13, STR_TO_DATE("15/12/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (265, 30, 22, STR_TO_DATE("22/12/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (266, 8, 7, STR_TO_DATE("26/06/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (267, 70, 9, STR_TO_DATE("20/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (268, 56, 18, STR_TO_DATE("29/01/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (269, 13, 19, STR_TO_DATE("06/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (270, 61, 2, STR_TO_DATE("18/06/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (271, 47, 13, STR_TO_DATE("18/09/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (272, 30, 22, STR_TO_DATE("19/02/2016", "%d/%m/%Y"));
```

```
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (273, 18, 22, STR_TO_DATE("31/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (274, 34, 29, STR_TO_DATE("27/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (275, 32, 21, STR_TO_DATE("03/06/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (276, 9, 28, STR_TO_DATE("30/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (277, 62, 24, STR_TO_DATE("23/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (278, 44, 22, STR_TO_DATE("29/04/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (279, 27, 5, STR_TO_DATE("25/03/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (280, 61, 28, STR_TO_DATE("14/07/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (281, 5, 13, STR_TO_DATE("04/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (282, 43, 19, STR_TO_DATE("15/03/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (283, 34, 19, STR_TO_DATE("05/06/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (284, 35, 5, STR_TO_DATE("19/02/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)
```

```sql
VALUES (285, 13, 12, STR_TO_DATE("23/09/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (286, 74, 18, STR_TO_DATE("26/12/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (287, 70, 31, STR_TO_DATE("15/08/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (288, 42, 17, STR_TO_DATE("15/06/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (289, 51, 24, STR_TO_DATE("30/07/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (290, 45, 30, STR_TO_DATE("15/01/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (291, 70, 17, STR_TO_DATE("07/10/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (292, 77, 7, STR_TO_DATE("06/01/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (293, 74, 25, STR_TO_DATE("25/09/2015", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (294, 47, 14, STR_TO_DATE("01/02/2018", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (295, 10, 2, STR_TO_DATE("18/04/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (296, 16, 21, STR_TO_DATE("03/10/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (297, 48, 5, STR_TO_DATE("17/09/2016", "%d/%m/%Y"));
```

```sql
INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (298, 72, 3, STR_TO_DATE("10/02/2017", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (299, 26, 23, STR_TO_DATE("01/03/2016", "%d/%m/%Y"));

INSERT INTO Borrower (BorrowId, ClientId, BookId, BorrowDate)

VALUES (300, 49, 23, STR_TO_DATE("25/10/2016", "%d/%m/%Y"));
```

PART C

C. Write the following queries to retrieve the information detailed below.

1. Display all contents of the Clients table

#Use an asterisk to return all columns of the Client table.

SELECT * FROM CLIENT;

#Results of this query:

ClientID	ClientFirstName	ClientLastName	ClientDoB	Occupation
1	Kaiden	Hill	2006	Student
2	Alina	Morton	2010	Student
3	Fania	Brooks	1983	Food Scientist
4	Courtney	Jensen	2006	Student
5	Brittany	Hill	1983	Firefighter
6	Max	Rogers	2005	Student
7	Margaret	McCarthy	1981	School Psychologist
8	Julie	McCarthy	1973	Professor
9	Ken	McCarthy	1974	Securities Clerk
10	Britany	O'Quinn	1984	Violinist
11	Conner	Gardner	1998	Licensed Massage Therapist
12	Mya	Austin	1960	Parquet Floor Layer
13	Thierry	Rogers	2004	Student
14	Eloise	Rogers	1984	Computer Security Manager
15	Gerard	Jackson	1979	Oil Exploration Engineer
16	Randy	Day	1986	Aircraft Electrician
17	Jodie	Page	1990	Manufacturing Director
18	Coral	Rice	1996	Window Washer
19	Ayman	Austin	2002	Student
20	Jaxson	Austin	1999	Repair Worker

21	Joel	Austin	1973	Police Officer
22	Alina	Austin	2010	Student
23	Elin	Austin	1962	Payroll Clerk
24	Ophelia	Wolf	2004	Student
25	Eliot	McGuire	1967	Dentist
26	Peter	McKinney	1968	Professor
27	Annabella	Henry	1974	Nurse
28	Anastasia	Baker	2001	Student
29	Tyler	Baker	1984	Police Officer
30	Lilian	Ross	1983	Insurance Agent
31	Thierry	Arnold	1975	Bus Driver
32	Angelina	Rowe	1979	Firefighter
33	Marcia	Rowe	1974	Health Educator
34	Martin	Rowe	1976	Ship Engineer
35	Adeline	Rowe	2005	Student
36	Colette	Rowe	1963	Professor
37	Diane	Clark	1975	Payroll Clerk
38	Caroline	Clark	1960	Dentist
39	Dalton	Clayton	1982	Police Officer
40	Steve	Clayton	1990	Bus Driver
41	Melanie	Clayton	1987	Computer Engineer
42	Alana	Wilson	2007	Student
43	Carson	Byrne	1995	Food Scientist
44	Conrad	Byrne	2007	Student
45	Ryan	Porter	2008	Student
46	Elin	Porter	1978	Computer Programmer
47	Tyler	Harvey	2007	Student
48	Arya	Harvey	2008	Student
49	Serena	Harvey	1978	School Teacher

50	Lilly	Franklin	1976	Doctor
51	Mai	Franklin	1994	Dentist
52	John	Franklin	1999	Firefighter
53	Judy	Franklin	1995	Firefighter
54	Katy	Lloyd	1992	School Teacher
55	Tamara	Allen	1963	Ship Engineer
56	Maxim	Lyons	1985	Police Officer
57	Allan	Lyons	1983	Computer Engineer
58	Marc	Harris	1980	School Teacher
59	Elin	Young	2009	Student
60	Diana	Young	2008	Student
61	Diane	Young	2006	Student
62	Alana	Bird	2003	Student
63	Anna	Becker	1979	Security Agent
64	Katie	Grant	1977	Manager
65	Joan	Grant	2010	Student
66	Bryan	Bell	2001	Student
67	Belle	Miller	1970	Professor
68	Peggy	Stevens	1990	Bus Driver
69	Steve	Williamson	1975	HR Clerk
70	Tyler	Williamson	1999	Doctor
71	Izabelle	Williamson	1990	Systems Analyst
72	Annabel	Williamson	1960	Cashier
73	Mohamed	Waters	1966	Insurance Agent
74	Marion	Newman	1970	Computer Programmer
75	Ada	Williams	1986	Computer Programmer
76	Sean	Scott	1983	Bus Driver
77	Farrah	Scott	1974	Ship Engineer
78	Christine	Lambert	1973	School Teacher

| 79 | Alysha | Lambert | 2007 | Student |
| 80 | Maia | Grant | 1984 | School Teacher |

2. First names, last names, ages and occupations of all clients

#First Name will be an alias for the ClientFirstName column.

SELECT ClientFirstName AS 'First Name',

#Last Name will be an alias for the ClientLastName column.

ClientLastName AS 'Last Name',

#Calculate age by subtracting ClientDoB from the current year.

(2024 - ClientDoB) AS Age,

Occupation

FROM CLIENT;

/*This query displays the first name, last name, age, and occupation of clients using data from the Client table.*/

#Results of this query:

First Name	Last Name	Age	Occupation
Kaiden	Hill	18	Student
Alina	Morton	14	Student
Fania	Brooks	41	Food Scientist
Courtney	Jensen	18	Student
Brittany	Hill	41	Firefighter
Max	Rogers	19	Student
Margaret	McCarthy	43	School Psychologist
Julie	McCarthy	51	Professor
Ken	McCarthy	50	Securities Clerk

Britany	O'Quinn	40	Violinist
Conner	Gardner	26	Licensed Massage Therapist
Mya	Austin	64	Parquet Floor Layer
Thierry	Rogers	20	Student
Eloise	Rogers	40	Computer Security Manager
Gerard	Jackson	45	Oil Exploration Engineer
Randy	Day	38	Aircraft Electrician
Jodie	Page	34	Manufacturing Director
Coral	Rice	28	Window Washer
Ayman	Austin	22	Student
Jaxson	Austin	25	Repair Worker
Joel	Austin	51	Police Officer
Alina	Austin	14	Student
Elin	Austin	62	Payroll Clerk
Ophelia	Wolf	20	Student
Eliot	McGuire	57	Dentist
Peter	McKinney	56	Professor
Annabella	Henry	50	Nurse
Anastasia	Baker	23	Student
Tyler	Baker	40	Police Officer
Lilian	Ross	41	Insurance Agent
Thierry	Arnold	49	Bus Driver
Angelina	Rowe	45	Firefighter
Marcia	Rowe	50	Health Educator
Martin	Rowe	48	Ship Engineer
Adeline	Rowe	19	Student
Colette	Rowe	61	Professor
Diane	Clark	49	Payroll Clerk
Caroline	Clark	64	Dentist

Dalton	Clayton	42	Police Officer
Steve	Clayton	34	Bus Driver
Melanie	Clayton	37	Computer Engineer
Alana	Wilson	17	Student
Carson	Byrne	29	Food Scientist
Conrad	Byrne	17	Student
Ryan	Porter	16	Student
Elin	Porter	46	Computer Programmer
Tyler	Harvey	17	Student
Arya	Harvey	16	Student
Serena	Harvey	46	School Teacher
Lilly	Franklin	48	Doctor
Mai	Franklin	30	Dentist
John	Franklin	25	Firefighter
Judy	Franklin	29	Firefighter
Katy	Lloyd	32	School Teacher
Tamara	Allen	61	Ship Engineer
Maxim	Lyons	39	Police Officer
Allan	Lyons	41	Computer Engineer
Marc	Harris	44	School Teacher
Elin	Young	15	Student
Diana	Young	16	Student
Diane	Young	18	Student
Alana	Bird	21	Student
Anna	Becker	45	Security Agent
Katie	Grant	47	Manager
Joan	Grant	14	Student
Bryan	Bell	23	Student
Belle	Miller	54	Professor

Peggy	Stevens	34	Bus Driver
Steve	Williamson	49	HR Clerk
Tyler	Williamson	25	Doctor
Izabelle	Williamson	34	Systems Analyst
Annabel	Williamson	64	Cashier
Mohamed	Waters	58	Insurance Agent
Marion	Newman	54	Computer Programmer
Ada	Williams	38	Computer Programmer
Sean	Scott	41	Bus Driver
Farrah	Scott	50	Ship Engineer
Christine	Lambert	51	School Teacher
Alysha	Lambert	17	Student
Maia	Grant	40	School Teacher

3. First and last names of clients that borrowed books in March 2018

/*Select the ClientFirstName (aliased as "First Name") and the ClientLastName (aliased as "Last Name) from the Client table.*/

SELECT Client.ClientFirstName AS 'First Name', Client.ClientLastName AS 'Last Name'

FROM Client

/*Join the Client table with the Borrower table on ClientID, getting the results that exist in both tables.*/

INNER JOIN Borrower

ON Borrower.ClientID = Client.ClientID

/Filter results for book borrowings in March 2018 only./

WHERE Borrower.BorrowDate > '2018-02-28' AND Borrower.BorrowDate < '2018-04-01';

#Results of this query:

First Name	Last Name
Maia	Grant
Marcia	Rowe
Alysha	Lambert
Tyler	Baker
Katy	Lloyd
Angelina	Rowe
Gerard	Jackson
Carson	Byrne

4. First and last names of the top 5 authors clients borrowed in 2017

/*Count the number of books borrowed (as the alias AmountBorrowed). Display the AmountBorrowed with the author's first and last name.*/

SELECT COUNT(Borrower.BorrowId) AS AmountBorrowed, Author.AuthorLastName, Author.AuthorFirstName

FROM Borrower

/*Join the Book table with the Borrower table using the BookID which is the PK for the Book table and a foreign key in the Borrower table.*/

JOIN Book ON Book.BookId = Borrower.BookId

/*Join the Book table with the Author table using the AuthorID which is the PK for the Author table and a foreign key in the Book table under the alias BookAuthor.*/

JOIN Author ON Book.BookAuthor = Author.AuthorId

#Filter for books borrowed in the year 2017.

WHERE YEAR(Borrower.BorrowDate) = '2017'

#Group by the author's first name and author's last name.

GROUP BY Author.AuthorLastName, Author.AuthorFirstName

/*Order by the AmountBorrowed in descending order.*/

ORDER BY AmountBorrowed DESC

#Display only the top 5 results.

LIMIT 5;

#Results of this query:

AmountBorrowed	AuthorLastName	AuthorFirstName
7	Martin	Elena
7	Moore	Logan
7	Smith	Sofia
6	Brown	Maria
5	Roy	Zoe

5. Nationalities of the least 5 authors that clients borrowed during the years 2015-2017

/*Count each BorrowId from the Borrower table as AmountBorrowed and query the author nationality from the Author table.*/

SELECT COUNT(Borrower.BorrowId) AS AmountBorrowed, Author.AuthorNationality

FROM Author

/*Join the Author, Book, and Borrower tables on their relationships. The Book table and the Author table have a relationship through the Author Id which is a PK for the Author table and a FK in the Book table. The Author table and the Borrower table have a relationship because the Book table has the FK of AuthorID and the AuthorID is the PK in the Author table, and the Borrower table has the FK of BookID which is the PK of the book table.*/

LEFT JOIN Book ON Author.AuthorId = Book.BookAuthor

RIGHT JOIN Borrower ON Book.BookId = Borrower.BookId

#Filter for book borrowed during the years 2015-2017.

WHERE YEAR(Borrower.BorrowDate) BETWEEN 2015 AND 2017

#Group by the author's nationality and then order by the amount borrowed(COUNT gets this amount).

GROUP BY Author.AuthorID

ORDER BY AmountBorrowed

#Display only the lowest 5 borrowed.

LIMIT 5;

#Results of this query:

AmountBorrowed	AuthorNationality
3	Spain
5	USA
5	Canada
6	USA
6	Great Britain

6. The book that was most borrowed during the years 2015-2017

#Count the number of times each book has been borrowed and select the book title.

SELECT COUNT(Borrower.BorrowId) AS TimesBorrowed, Book.BookTitle

FROM Borrower

/*Inner join the Book table with the Borrower table on BookID, which is the PK in the Book table and a FK in the Borrower table. Also inner join the Author table with the Borrower table on the AuthorID, which is the PK in the Author table and is a FK under the alias BookAuthor in the Booktable which connects to the Borrower table through the BookId.*/

INNER JOIN Book ON Borrower.BookId = Book.BookId

INNER JOIN Author ON Book.BookAuthor = Author.AuthorId

#Filter for books borrowed between 2015-2017.

WHERE YEAR(Borrower.BorrowDate) BETWEEN 2015 AND 2017

#Group b y book title, then order by the TimesBorrowed in descending order.

GROUP BY BookTitle

ORDER BY TimesBorrowed DESC

#Display only the top result with the most borrowings.

LIMIT 1;

#Results of this query:

TimesBorrowed	BookTitle
13	The perfect match

7. Top borrowed genres for client born in years 1970-1980

#Count the number of books borrowed for each book genre.

SELECT COUNT(Borrower.BorrowId) AS AmountBorrowed, Book.Genre

FROM Borrower

#Inner join the Book and Borrower tables on BookId, and join the Client table on ClientId.

INNER JOIN Book

ON Borrower.BookId = Book.BookId

INNER JOIN Client

ON Borrower.ClientId = Client.ClientId

#Filter for clients born between 1970 and 1980.

WHERE Client.ClientDoB > 1969 AND Client.ClientDoB < 1981

#Group by Genre, then order by the AmountBorrowed in descending order.

GROUP BY Genre

ORDER BY AmountBorrowed DESC;

#Results of this query:

AmountBorrowed	Genre
24	Science
16	Fiction
15	Well being
5	Humor
4	Society
3	Children
3	History
3	Literature
3	Law

8. Top 5 occupations that borrowed the most in 2016

#Count the number of books borrowed for each client occupation.

SELECT COUNT(Borrower.BorrowId) AS AmountBorrowed, Client.Occupation

FROM Borrower

#Right join the Client and Borrower tables on ClientId.

RIGHT JOIN Client ON Borrower.ClientId = Client.ClientId

#Left join the Book and Borrower tables on BookId.

LEFT JOIN Book ON Borrower.BookId = Book.BookId

#Filter for books borrowed in the year 2016.

WHERE YEAR(Borrower.BorrowDate) = '2016'

/*Group by occupation, then order by AmountBorrowed in descending order and occupation in ascending order.*/

GROUP BY Occupation

ORDER BY AmountBorrowed DESC, Occupation ASC

#Show only the top 5 results.

LIMIT 5;

#Results of this query:

AmountBorrowed	Occupation
32	Student
8	Bus Driver
6	Computer Programmer
6	Dentist
5	Firefighter

9.   Average number of borrowed book by job title

SELECT Client.Occupation,

/*Count the total amount of books borrowed and unique clients, then calculate the average borrowings per client by dividing the count of bookId by the count of ClientId.*/

COUNT(Borrower.BookID) / COUNT(DISTINCT Client.ClientID) AS BorrowAverage

FROM Client

#Inner join the Borrower and Client tables on ClientID.

INNER JOIN Borrower ON Borrower.ClientID = Client.ClientID

#Group by occupation and then order by the borrow average in descending order.

GROUP BY Occupation

ORDER BY BorrowAverage DESC;

#Results of this query:

Occupation	BorrowAverage

Nurse	7.0000
Computer Security Manager	6.0000
Computer Programmer	5.6667
Dentist	5.6667
Cashier	5.0000
Food Scientist	5.0000
Manufacturing Director	5.0000
Oil Exploration Engineer	5.0000
Police Officer	4.5000
Student	4.4211
Bus Driver	4.0000
Doctor	4.0000
Violinist	4.0000
HR Clerk	4.0000
Insurance Agent	4.0000
Systems Analyst	4.0000
Ship Engineer	4.0000
School Teacher	3.6000
Professor	3.5000
Firefighter	3.2500
Computer Engineer	3.0000
Manager	3.0000
Payroll Clerk	3.0000
Repair Worker	3.0000
School Psychologist	2.0000
Securities Clerk	2.0000
Security Agent	2.0000
Parquet Floor Layer	2.0000
Aircraft Electrician	2.0000

Licensed Massage Therapist	2.0000
Health Educator	2.0000
Window Washer	2.0000

10. Create a VIEW and display the titles that were borrowed by at least 20% of clients

#Create a View named 20PercentClientsBorrowed.

CREATE VIEW 20PercentClientsBorrowed AS

#Select the book titles from the Book table.

SELECT Book.BookTitle

FROM Borrower

#Join the Book, Client, and Borrower tables.

JOIN Book ON Book.BookId = Borrower.BookId

JOIN Client ON Borrower.ClientId = Client.ClientId

#Group results by BookTitle.

GROUP BY BookTitle

/*Filter the groups where the ClientID is greater than or equal to .2 times the number of unique Client Id (or 20% of the total unique clients).*/

HAVING COUNT(DISTINCT Borrower.ClientID) >= (SELECT COUNT(*) * 0.20 FROM Client)

#Order results by the count of unique ClientIDs in descending order.

ORDER BY COUNT(Client.ClientId) DESC;

#To view the contents of the created view.

SELECT * FROM 20PercentClientsBorrowed;

#Results of this query:

BookTitle
Electrical transformers

/*Select and count the BorrowID as the alias NumberBorrows and extract the month of the BorrowDate as the alias MonthOf2017.*/

SELECT COUNT(Borrower.BorrowId) AS NumberBorrows,

MONTH(Borrower.BorrowDate) AS MonthOf2017

FROM Borrower

#Filter to include only rows with a Borrowdate in the year 2017.

WHERE YEAR(Borrower.BorrowDate) = 2017

#Group the results by the MonthOf2017 column.

GROUP BY MonthOf2017

#Order the number of borrows in descending order and then by the MonthOf2017 in ascending order.

ORDER BY NumberBorrows DESC, MonthOf2017 ASC

#Limit the result to show only the row with the highest number of borrows in 2017.

LIMIT 1;

#Results of this query:

NumberBorrows	MonthOf2017
10	7

#Calculate the age of clients by subtracting their date of birth from the current year (2024).

SELECT (2024 - Client.ClientDoB) AS Age,

/*Calculate the average number of borrowings per unique client for each age group by counting the unique borrow id's and dividing this number by the counted amount of unique client ids. Display this data in a column called AverageBorrows.*/

COUNT(DISTINCT Borrower.BorrowId) / COUNT(DISTINCT Client.ClientId) AS AverageBorrows

FROM Borrower

#Join the Borrower table with the Book table and the Client table using primary and foreign keys.

INNER JOIN Book ON Borrower.BookId = Book.BookId

INNER JOIN Client ON Borrower.ClientId = Client.ClientId

#Group the results by age.

GROUP BY Age

#Order the result set by age in ascending order.

ORDER BY Age;

#Results of this query:

Age	AverageBorrows
14	2.3333
16	6.0000
17	5.0000
18	5.5000
19	4.5000
20	3.0000
21	5.0000
22	2.0000
23	4.5000
25	3.6667
26	2.0000
28	2.0000

29	4.5000
30	10.0000
32	3.0000
34	5.5000
37	2.0000
38	3.0000
39	4.0000
40	5.5000
41	3.7500
42	3.0000
43	2.0000
44	1.0000
45	4.3333
46	5.5000
47	3.0000
48	3.5000
49	2.6667
50	3.2500
51	3.6667
54	4.5000
56	4.0000
57	3.0000
58	1.0000
61	5.0000
62	3.0000
64	3.6667

13. The oldest and the youngest clients of the library

/*Calculate and select the age of each client by subtracting the client's date of birth from the current year (2024), using the alias Age.*/

SELECT (2024 - Client.ClientDoB) AS Age,

Client.ClientFirstName AS FirstName,

Client.ClientLastName AS LastName

FROM Client

/*Filter the rows based on the calculated age. SELECT MAX checks that the calculated age is equal to the maximum age in the client table.*/

WHERE (2024 - Client.ClientDoB) = (SELECT MAX(2024 - Client.ClientDoB)

FROM Client)

OR (2024 - Client.ClientDoB) = (SELECT MIN(2024 - Client.ClientDoB)

FROM Client)

#Order results by age.

ORDER BY Age;

#Results of this query:

Age	FirstName	LastName
14	Alina	Morton
14	Alina	Austin
14	Joan	Grant
64	Mya	Austin
64	Caroline	Clark
64	Annabel	Williamson

14. First and last names of authors that wrote books in more than one genre

#Select the first name and last name of the authors.

SELECT Author.AuthorFirstName AS FirstName,

Author.AuthorLastName AS LastName,

#Count the number of distinct(unique) genres written by each author.

COUNT(DISTINCT Book.Genre) AS GenresWritten

FROM Author

/*Join the Author table with the Book Table. The Author and Book tables are joined on AuthorID and BookAuthor, establishing a relationship that enables us to gather information on the genres each author has written.*/

INNER JOIN Book ON Author.AuthorId = Book.BookAuthor

#Group the results by the first and last names of the authors.

GROUP BY FirstName, LastName

#Filter the grouped results to include only authors who have written more than one distinct genre.

HAVING GenresWritten > 1;

#It appears that none of the authors in the database have written books in more than one genre.

#Results of this query:

FirstName	LastName	GenresWritten