

Assignment 3: Oracle SQL Database
CPS510-Section 8
Fall 2023

Professor: Soheila Bashardoust Tajali

TA: Sima Naderi Mighan

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Team 9: Akshar Patel (501110652), Amsan Naheswaran (501092668), Amaan Asim (501086887)

Library Database System

Charts:

Books:

Book_id	Title	Author_id	Publication Year	ISBN	Genre_id	Available Copie
100	"1984"	1000	1949	9780451524935	2	100
101	"The Great Gatsby"	1001	1925	9780743273565	1	97
102	"To Kill a Mockingbird"	1002	1960	9780446310789	6	125
103	"Moby-Dick"	1003	1851	9781509826643	4	87

```
CREATE TABLE book(  
    book_id INTEGER PRIMARY KEY,  
    title VARCHAR(100),  
    author_id INTEGER,  
    publication_year INTEGER,  
    ISBN NUMBER(20),  
    genre_id INTEGER,  
    available_copie INTEGER  
);
```

Authors:

author_id	first_name	last_name	birth_date	biography
1000	George	Orwell	1903-06-25	English novelist and essayist, famous for "1984"
1001	F. Scott	Fitzgerald	1924-04-25	English author known for "The Great Gatsby"
1002	Harper	Lee	1926-04-28	American novelist known for "To Kill a Mockingbird"
1003	Herman	Melville	1819-08-01	American author known for "Moby-Dick"
1004	Rick	Riordan	1964-06-05	American author known for the Percy Jackson series

```
CREATE TABLE authors (
  author_id INTEGER PRIMARY KEY,
  first_name VARCHAR(100),
  last_name VARCHAR(100),
  birth_date DATE,
  biography VARCHAR(100)
);
```

Staff Members:

Staff_id	first_name	last_name	email	phone_number	Start_date
1	Akshar	Patel	akshar1.patel@torontomu.ca	(123) 456-7890	2022-09-10
2	Amsan	Naheswaran	amsan.naheswaran@torontomu.ca	(456) 123-0987	2015-06-17
3	Amaan	Asim	amaan.asim@torontomu.ca	(678) 901-2345	2020-12-01

```
CREATE TABLE staff (
  staff_id INTEGER PRIMARY KEY,
  first_name VARCHAR(100),
  last_name VARCHAR(100),
  phone_number VARCHAR(20),
  email VARCHAR(100)
);
```

Genres:

Genre_id	Genre Name
1	"Fiction"
2	"Science Fiction"
3	"Mystery"
4	"Adventure"
5	"Non-Fiction"
6	"Thriller"
7	"Romance"

```
CREATE TABLE genres (  
  genre_id INT PRIMARY KEY,  
  genre_name VARCHAR(255)  
);
```

Members:

Member_id	Name	Email	Phone Number	Address	Start Date	Number of Books Signed Out
001	Jeffery David	jeff.david@gmail.com	555-666-777	12 Appleberry Road	2022-09-10	1
002	Amanda Song	amanda@gmail.com	555-515-2356	1234 Coner Street	2015-06-17	1
003	Lee Soi	lee.soi@gmail.com	555-143-5920	99 Toddville Crossing	2020-12-01	1

```
CREATE TABLE members (  
    member_id INT PRIMARY KEY,  
    first_name VARCHAR(255),  
    last_name VARCHAR(255),  
    email VARCHAR(100),  
    phone_number VARCHAR(20),  
    address VARCHAR(255),  
    start_date DATE,  
    books_signed_out INT  
);
```

Checked Out Books:

Checkout_id	book_id	member_id	Date checked out	Due Date
2000	100	001	2023-09-13	2023-09-27
2001	101	002	2023-08-01	2022-08-15
2003	102	003	2022-12-27	2023-01-13
2004	103	004	2019-05-05	2019-05-20

```
CREATE TABLE checked_out_books(  
    checkedout_id INTEGER PRIMARY KEY,  
    book_id INTEGER,  
    member_id INTEGER,  
    date_checked_out DATE,  
    due_date DATE  
);
```

Populating the Tables:

Books:

```
INSERT INTO book (book_id, title, author_id, publication_year, ISBN, genre_id, available_copie) VALUES (100, '1984', 1000, 1949, 9780451524935, 2, 100);
INSERT INTO book (book_id, title, author_id, publication_year, ISBN, genre_id, available_copie) VALUES (101, 'The Great Gatsby', 1001, 1925, 9780743273565, 1, 97);
INSERT INTO book (book_id, title, author_id, publication_year, ISBN, genre_id, available_copie) VALUES (102, 'To Kill A Mockingbird', 1002, 1960, 9780446310789, 6, 125);
INSERT INTO book (book_id, title, author_id, publication_year, ISBN, genre_id, available_copie) VALUES (103, 'Moby-Dick', 1003, 1851, 9781509826643, 4, 87);
INSERT INTO book (book_id, title, author_id, publication_year, ISBN, genre_id, available_copie) VALUES (104, 'The Catcher in the Rye', 1004, 1951, 9780316769488, 1, 27);
```

Authors:

```
INSERT INTO authors (author_id, first_name, last_name, birth_date, biography) VALUES (1000, 'George', 'Orwell', TO_DATE('25-JUN-1903', 'DD-MON-YYYY'), 'English novelist and essayist, famous for "1984"');
INSERT INTO authors (author_id, first_name, last_name, birth_date, biography) VALUES (1001, 'F.Scott', 'Fitzgerald', TO_DATE('25-APR-1924', 'DD-MON-YYYY'), 'English author known for "The Great Gatsby"');
INSERT INTO authors (author_id, first_name, last_name, birth_date, biography) VALUES (1002, 'Harper', 'Lee', TO_DATE('28-APR-1926', 'DD-MON-YYYY'), 'American novelist known for "To Kill a Mockingbird"');
INSERT INTO authors (author_id, first_name, last_name, birth_date, biography) VALUES (1003, 'Herman', 'Melville', TO_DATE('01-JAN-1819', 'DD-MON-YYYY'), 'American author known for "Moby-Dick"');
INSERT INTO authors (author_id, first_name, last_name, birth_date, biography) VALUES (1004, 'Rick', 'Riordan', TO_DATE('05-JUN-1964', 'DD-MON-YYYY'), 'American author known for the Percy Jackson series');
```

Genres:

```
INSERT INTO genres (genre_id, genre_name) VALUES (1, 'Fiction');
INSERT INTO genres (genre_id, genre_name) VALUES (2, 'Science-Fiction');
INSERT INTO genres (genre_id, genre_name) VALUES (3, 'Mystery');
INSERT INTO genres (genre_id, genre_name) VALUES (4, 'Adventure');
INSERT INTO genres (genre_id, genre_name) VALUES (5, 'Non-Fiction');
INSERT INTO genres (genre_id, genre_name) VALUES (6, 'Thriller');
INSERT INTO genres (genre_id, genre_name) VALUES (7, 'Romance');
```

Members:

```
INSERT INTO members (member_id, first_name, last_name, email, phone_number, address, start_date, books_signed_out) VALUES (001, 'Jeffery', 'David', 'jeff.david@gmail.com', '555-666-7777', '12 Appleberry Road', TO_DATE('09/10/2022', 'MM/DD/YYYY'), 1);
INSERT INTO members (member_id, first_name, last_name, email, phone_number, address, start_date, books_signed_out) VALUES (002, 'Amanda', 'Song', 'amanda@gmail.com', '555-262-7777', '1234 Corner Street', TO_DATE('06/07/2015', 'MM/DD/YYYY'), 1);
INSERT INTO members (member_id, first_name, last_name, email, phone_number, address, start_date, books_signed_out) VALUES (003, 'Lee', 'Soi', 'lee.soi@gmail.com', '555-143-7277', '99 Toddville Crossing', TO_DATE('01/10/2020', 'MM/DD/YYYY'), 1);
```

Staff:

```
INSERT INTO staff (staff_id, first_name, last_name, phone_number, email) VALUES (1, 'Akshar', 'Patel', '(123) 456-7890', 'akshar1.patel@torontomu.ca');
INSERT INTO staff (staff_id, first_name, last_name, phone_number, email) VALUES (2, 'Amsan', 'Naheswaran', '(456) 123-0987', 'amsan.naheswaran@torontomu.ca');
INSERT INTO staff (staff_id, first_name, last_name, phone_number, email) VALUES (3, 'Amman', 'Asim', '(678) 901-2345', 'amaan.asim@torontomu.ca');
```

Checked out Books:

```
INSERT INTO checked_out_books (checkedout_id, book_id, member_id, date_checked_out, due_date) VALUES (2000, 100, 001, TO_DATE('13-09-2023', 'DD-MM-YYYY'), TO_DATE('27-09-2023', 'DD-MM-YYYY'));
INSERT INTO checked_out_books (checkedout_id, book_id, member_id, date_checked_out, due_date) VALUES (2001, 101, 002, TO_DATE('01-08-2022', 'DD-MM-YYYY'), TO_DATE('15-08-2022', 'DD-MM-YYYY'));
INSERT INTO checked_out_books (checkedout_id, book_id, member_id, date_checked_out, due_date) VALUES (2002, 102, 003, TO_DATE('27-12-2022', 'DD-MM-YYYY'), TO_DATE('13-01-2023', 'DD-MM-YYYY'));
INSERT INTO checked_out_books (checkedout_id, book_id, member_id, date_checked_out, due_date) VALUES (2003, 103, 004, TO_DATE('05-05-2019', 'DD-MM-YYYY'), TO_DATE('20-05-2019', 'DD-MM-YYYY'));
```

Files to these codes are attached in the D2L submission