

# sql script for creating the DB

## book

```
CREATE TABLE book_information (  
    book_id SERIAL PRIMARY KEY,  
    title VARCHAR(255) NOT NULL,  
    author VARCHAR(255),  
    isbn VARCHAR(13) UNIQUE,  
    number_of_books INT DEFAULT 0,  
    price_per_day NUMERIC(10, 2),  
    year_of_publishing INT  
);
```

## location

```
CREAT TABLE Location(  
    location_id SERIAL PRIMARY KEY,  
    number_of_books INT NOT NULL ,  
);
```

## borrower

```
CREATE TABLE borrower (  
    n_id SERIAL PRIMARY KEY,  
    first_name VARCHAR(100) NOT NULL,  
    last_name VARCHAR(100) NOT NULL,  
    email VARCHAR(255) UNIQUE,  
    registered_date DATE DEFAULT CURRENT_DATE  
);
```

## book\_location

```
CREATE TABLE book_location (  
    book_id INT NOT NULL ,  
    location_id INT NOT NULL ,  
    PRIMARY KEY (book_id,location_id),  
    FOREIGN KEY(book_id) REFERENCES book(book_id) ON DELETE CASCADE,  
    FOREIGN KEY (location_id) REFERENCES Location(location_id) ON DELETE  
CASCADE  
);
```

## book\_topic

```
CREATE TABLE book_topic (  
    book_id INT NOT NULL,  
    topic VARCHAR(255) NOT NULL,  
    PRIMARY KEY (book_id, topic),
```

```
FOREIGN KEY (book_id) REFERENCES book(book_id) ON DELETE CASCADE  
);
```

### **borrowing\_transaction**

```
CREATE TABLE borrowing_transaction (  
    transaction_id SERIAL PRIMARY KEY,  
    book_id INT NOT NULL,  
    national_id INT NOT NULL,  
    start_date DATE NOT NULL,  
    end_date DATE NOT NULL,  
    total_price NUMERIC(10, 2) NOT NULL,  
    FOREIGN KEY (book_id) REFERENCES book(book_id) ON DELETE CASCADE,  
    FOREIGN KEY (national_id) REFERENCES borrower(national_id) ON DELETE  
CASCADE  
);
```

### **review**

```
CREATE TABLE review (  
    review_id SERIAL PRIMARY KEY ,  
    national_id INT NOT NULL,  
    book_id INT NOT NULL ,  
    rate INT check (rate>=1 AND rate<=5) ,  
    review_text TEXT,  
    FOREIGN KEY (national_id) REFERENCES borrower(national_id) ON DELETE  
CASCADE,  
    FOREIGN KEY (book_id) REFERENCES book(book_id) ON DELETE CASCADE  
);
```