**Program Execution**

The user should type:

1: For adding a book to the database. When adding a book the user will be prompted to type the id of the book (all numbers), the number of copies (all numbers) and the title of the book. After adding a book the user will be asked if he wants to add another book.

2: For adding a student record. When typing 2 the user can borrow or return a book. The user will be prompted to add the id of the student and the name of the student (the name only if it is the first time he is borrowing/returning a book) and then he is expected to type B/b or R/r for borrowing or returning a book respectively. In both cases he will be prompted to type the title of the book he wants to return/borrow.

3: For printing the table of the students

4: For printing the table of the books

5: For printing the table of the borrowed books.

The program uses the sqlite3 library for the database

Library class:

* set\_book(self, book) method: This method takes a book object as an input and adds it to the books\_dict dictionary using the book.title as the key and the book.id and book.copies as the value.
* set\_dict(self, d) method: This method takes a dictionary d as an input and sets it as the books\_dict dictionary.
* return\_book(self, book) method: This method takes a book object as an input and returns the value associated with the book.title key in the books\_dict dictionary, which is a list containing the book.id and book.copies values.
* return\_all\_books(self) method: This method returns the entire books\_dict dictionary, which contains all the books in the library.

Book class:

What basically the Book class does is everytime we create a Book object, the info of tha book is added in the books table in the library database.

Student\_Record class:

* print\_students\_table method: Print the table of the students
* print\_books\_table method: Print the table of the books
* print\_borrowed\_table method: Print the table of the borrowed books
* borrow method: For borrowing books
* return\_book method: For returning books

insert\_books\_in\_db function: Insert books in database and in the dictionary attribute of the Library class

insert\_records function: For inserting records of students that have borrowed a book in the database. Also for returning books.

main function: The main function of the program that takes input from the user

At the create\_db\_and\_tables.py I create the database and the tables (books, students, borrowed with the create\_database function. Also I implemented the remove\_database function for deleting the database