Java Sprint 1

**Classes:**

1. **Library Item:** Borrow and return method, this class will be used to do the following:

1.Add new items, 2.edit existing items, and 3.delete items. Item **Type** would be used to choose between books and periodicals

**2. Author:** this class will be used to do the following:Add new Authors, edit existing Authors, and delete Authors.

**3. Patron:** this class will be used to do the following:Add new Patrons, edit existing Patrons, and delete Patrons.

**4. Library:** This class should have multiple methods. One method is to **search** items by Title, Author, or ISBN. The second method is to Borrow and Return items

**5. Demo/Main:**

|  |
| --- |
| Library |
| Patrons (FKEY) |
| Library Item (FKEY) |

|  |
| --- |
| Patrons |
| Name |
| Address |
| Phone Number |
| List of Items |

|  |
| --- |
| Library Item |
| Author (FKEY) |
| Title |
| ID |
| ISBN |
| Publisher |

|  |
| --- |
| Author (PKEY) |
| Name |
| Date of Birth |
| List of Items Written |

|  |
| --- |
| Periodicals |
| Periodical Type (FKEY) |

|  |
| --- |
| Books |
| Book Type (FKEY) |

|  |
| --- |
| Periodical Type |
| Electronic |
| Printed |

|  |
| --- |
| BookType |
| Electronic |
| Printed |
| Audio Book |

**Library**

**Author**

Author(name: String, dateOfBirth: String)

getName(): String

getDateOfBirth() String

getIthemsWritten() List<LibraryItems>

addItem(item: LibraryItem): void

**Patron**

Patron(name: String, address: String, phoneNumber: String)

getName(): String

getAddress(): String

getPhoneNumber(): String

**LibraryItem**

LibraryItem(title: String, author: Author, isbn: String)

getTitle(): String

getAuthor(): Author

getISBN(): String

borrowItem(): void

returnItem(): void

**Student:**

Inherits from patron

**Employee:**

Inherits from patron

**Periodicals:**

Extends from libraryItem

Periodical(title: String, author: Author, isbn: String)

**BOOKS**

Extends from LibraryItem

Book(title: String, author: Author, isbn: String)

**Electronic**

Extends and inherits from Periodicals

**Printed**

Extends and inherits from Periodicals

**Printed**

Extends and inherits from Books

**Audio**

Extends and inherits from Books

**EBook**

Extends and inherits from Books