**Requirements Document**

**Class:**

**Books**

Son class of Resources, inherit main data fields, setters and getters from that. Plus, other data and methods.

*Class Methods:*

*Method 1:* set\_damages

Method that sets damages of a book object

*Method 2*: get\_availability

Method that returns True or False whether a book object is available or not

*Method 3*: get\_borrower

Method that returns the borrower of a book

*Method 4*: print\_resource\_details

**Class:**

**E\_Resources**

Son class of Resources, inherit main data fields, setters and getters from that. Plus, other methods.

*Class Methods:*

*Method 1:* print\_resource\_details

Method that prints all the details of an eResource object

*Method 2:* add\_device

Method that add a device to the device list of an eResource object

**Class :**

**Devices**

Class for Devices, containing data fields of each and methods.

*Class Methods:*

*Method 1: set\_availability*

Method that sets the availability of a device object

*Method 2: set\_repair\_upgrade*

*Method that sets a repir or an upgrade done on a device object*

*Method 3:* get\_repairs\_upgrades

Method that returns repairs or upgrades done on a device object

*Method 4:* get\_availability

Method that returns Available or Unavailable weather a device object is available or unavailable

*Method 5:* check\_availability

Method that returns True or False weather a device object is available or unavailable

*Method 6:* print\_device\_details

Method that prints all the details of a device object

**Class:**

**Members**

Class for members of the Library containing data field of each and methods

*Method 1* set\_notification

Method that sets a notification to a member object

*Method 2* get\_borrowed\_books

Method that returns a list of the borrowed book by a member object

*Method 3:* get\_borrowed\_books\_lengh

Method that returns number of books borrowed by a member object

*Method 4:* add\_book

Method that adds a book to the list of borrowed books by a member object

*Method 5:* print\_personal\_details

Method that prints all the personal details of a member object

*Method 6* print\_notifictaions

Method that prints all the notifications of a member object

*Method 7:* print\_borrowed\_books\_details

Method that prints all the details of all books borrowed by a member object

**Class:**

**System**

Class for the actual System of the Library containing data field of it and methods to run the library

*Method 1*  get\_catalogue\_lengh

Method that return the number of resources in the catalogue

*Method 2:* check\_resource

Method that cheeck if a resource is actually in the catalogue

*Method 3:*  edit\_resource

Method that allow to edit the title of a resource object

*Method 4:* search\_resource

Method that search and return a resource object if it is actually in the catalogue

*Method 5:* search\_by\_ISBN

Method that search by ISBN and return details of all the objects with that ISBN

*Method 6:* search\_by\_author

Method that search by author and return details of all the objects with that author

*Method 7:* remove\_resource

Method that remove a resource based from the object resource itself from the catalogue

*Method 8:* delete\_resource\_from\_index\_position

Method that remove a resource based on index position from the catalogue

*Method 9:* print\_all\_available\_books\_datails

Method that print details for all available books

*Method 10:* add\_resource

Method that add a resource to the catalogue

*Method 11:* lending\_process

Method that simulate the process of lending a book

*Method 12:*  return\_book\_process

Method that simulate the process of returning a book

*Method 13:*  send\_notification

Method that send a message to everybody is currently borrowing a book

*Method 14:* print\_books\_catalogue

Method that print details of all the books currently on the list

*Method 15:*  print\_e\_resource\_catalogue

Method that print details of all the books currently on the list