

Classes Description

1. Class: PhysicalBook

- a. **Description:** Class to represent a physical book.
- b. **Methods:**
 - i. Method: setISBN(ISBN)
 - 1. Sets the ISBN of PhysicalBook
 - ii. Method: setLibraryUser(libraryUser)
 - 1. Sets library user
 - iii. Method: setDamages(newDamages)
 - 1. Sets any damages for book
 - iv. Method: setBookTitle(title)
 - 1. Sets the title of PhysicalBook
 - v. Method: setBookAuthor(author)
 - 1. Sets the author of PhysicalBook
 - vi. Method: getISBN()
 - 1. Gets the ISBN of PhysicalBook
 - vii. Method: getBookTitle()
 - 1. Gets the title of PhysicalBook
 - viii. Method: getBookAuthor()
 - 1. Gets the author of PhysicalBook
 - ix. Method: getLibraryUser()
 - 1. Gets library user
 - x. Method: checkBookAvailability()
 - 1. Checks if the book is available.
 - xi. Method: printPhysicalBookDetails ()
 - 1. Prints the details of a book.

2. Class: ElectronicResources

- a. **Description:** Class to represent the electronic resources
- b. **Methods:**
 - i. Method: setListDevices(list)
 - 1. Sets the list of devices
 - ii. Method: setISBN(isbn)
 - 1. Sets the ISBN for a resource
 - iii. Method: setEBookTitle(title)
 - 1. Sets the title of ebook
 - iv. Method: setEBookAuthor(author)
 - 1. Sets the author of ebook
 - v. Method: getISBN()
 - 1. Gets the ISBN of ebook
 - vi. Method: getEBookTitle()
 - 1. Gets the title of ebook
 - vii. Method: getEBookAuthor()
 - 1. Gets the author of ebook
 - viii. Method: printElectronicResourcesDetails()
 - 1. Prints the details of the list of electronic resource
 - ix. Method: addElectronicDevices(device)
 - 1. Adds an electronic device (device) from ElectronicDevice class

3. Class: ElectronicDevice

- a. **Description:** Class to represent the electronic device
- b. **Methods:**
 - i. Method: setDeviceAvailability(availability)
 - 1. Sets the availability of the device.
 - ii. Method: setLocationDevice(location)
 - 1. Sets the location of device
 - iii. Method: setDeviceType(type)
 - 1. Sets the type of device, i.e. computer, tablet.

- iv. Method: getLocationDevice()
 - 1. Gets the location of device
- v. Method: getDeviceType()
 - 1. Gets the type of device, i.e. computer, tablet.
- vi. Method: printElectronicDevicesDetails()
 - 1. Prints the electronic device details.
- vii. Method: checkAvailability()
 - 1. Checks the availability of the device.

4. Class: LibraryMember

a. Description:

b. Methods:

- i. Method: setNameMember(name)
 - 1. Sets the name of the library member
- ii. Method: setMemberID(id)
 - 1. Sets the id for the library member
- iii. Method: setMessages(newMessages)
 - 1. Sets new message to concatenate to notifications.
- iv. Method: getNameMember()
 - 1. Gets the name of the library member
- v. Method: getMemberID()
 - 1. Gets the ID of the library member
- vi. Method: printAllMessages()
 - 1. Prints all messages.
- vii. Method: addBook()
 - 1. Adds resource in list of borrowed books
- viii. Method: removeBook()
 - 1. Removes resource from list of borrowed books
- ix. Method: printAllBorrowedBooksByUser()
 - 1. Prints resources and books borrowed.
- x. Method: printLibraryMemberDetails()
 - 1. Prints details of a member.
- xi. Method: numberOfBooksBorrowed()
 - 1. Returns number of borrowed books.

5. Class: Library

a. Description:

b. Methods:

- i. Method: setLibraryName(name)
 - 1. Sets the name of the library
- ii. Method: setListOfLibraryResources(list)
 - 1. Sets the catalogue of the library
- iii. Method: getLibraryName()
 - 1. Gets the name of the library
- iv. Method: printAllDetailsLibrary()
 - 1. Prints all the details of list
- v. Method: checkElementInLibrary(resourceX)
 - 1. Checks if resourceX is in the catalogue list.
- vi. Method: changeTitleResource(resourceY, newTitle)
 - 1. Change the title of resourceY
- vii. Method: searchByISBN(ISBN)
 - 1. Search in the list of library for ISBN
- viii. Method: searchByAuthor(author)
 - 1. Search in the list for author of resource
- ix. Method: removeResource(resourceDeleted)
 - 1. Removes from catalogue resource you want to be deleted
- x. Method: removeResourceByPosition(resourcePosition)
 - 1. Removes resource at the wanted position.
- xi. Method: displayAllAvailableBooks()
 - 1. Prints all the available resources and books in the list of library.

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- xii. Method: lengthOfResources()
 - 1. Returns the number of resources and books in the catalogue.
- xiii. Method: addAResource(resource)
 - 1. Adds a resource or book in the catalogue.
- xiv. Method: lendBookToMember(member, book)
 - 1. It assigns a book or a resource to a library member.
- xv. Method: returnBookToLibrary(book, damage, messageDamage)
 - 1. It returns a book from a library member and changes the availability of the book or sets any damages
- xvi. Method: getMemberNamesWithBookBorrowed(self):
 - 1. Gets all member names who borrowed books
- xvii. Method: getMemberWithBookBorrowed()
 - 1. Gets all members who borrowed books
- xviii. Method: messageToMembers(message)
 - 1. Sets any messages for members who borrowed a book
- xix. Method: printDetailsPhysicalBooks ()
 - 1. Prints all the books in the catalogue.
- xx. Method: printDetailsElectronicBooks()
 - 1. Prints the electronic resources in the catalogue.