Attributes Book BorrowedBook User **Attributes** Attributes **Attributes** - userId: int - idSequence: int <<static>> - idSequence: int <<static>> - id: int [auto generated] - bookId: int - id: int - name: int - name: string borrowDate: string - returnDate: string - quantity: int - borrowed: int **Operations** + getId(): int **Operations Operations** + getName(): string + getUserId(): int + getId(): int + setName(name: string): void + getBookId(): int + getName(): string + toString(): string + getBorrowDate(): string + getQuantity(): int + serialize(): vector<string> <<override>> + getReturnDate(): string + deserialize(tokens: vector<string>): void <<override>> + getBorrowed(): int + setUserId(userId: int): void + getAvalible(): int + setBookId(bookId: int): void + setName(name: string): void + setBorrowDate(borrowDate: string): void + setQuantity(quantity: int): void + setReturnDate(returnDate: string): void + toString(): string + setBorrowed(borrowed: int): void + toString(): string + serialize(): vector<string> <<override>> + isEqual(book: Book): bool + deserialize(tokens: vector<string>): void <<override>> + serialize(): vector<string> <<override>> + deserialize(tokens: vector<string>): void <<override>> BorrowedBookRepository BookRepository UserRepository Attributes **Attributes** Attributes - borrowedBooks: vector<BorrowedBook> - books: vector<Book> - users: vector<User> fileHeaderTokens: vector<string> fileHeaderTokens: vector<string> fileHeaderTokens: vector<string> **Operations Operations Operations** + addUser(user: User): void + borrowBook(borrowedBook: BorrowedBook): void + addBook(book: Book): void + getUserById(userId: int): User + borrowBook(bookId: int): void + returnBook(userId: int, bookId: int): void + getUsers(): vector<User> + getBorrowedBooks(): vector<BorrowedBook> + returnBook(bookId: int): void + getBooks(): vector<Book> + getBorrowedBooksByBookId(bookId: int): vector<BorrowedBook> + isUserExist(name: string) bool + getBooksByNamePrefix(namePrefix: string): vector<Book> - loadBorrowedBooks(): void + isUserExist(id: int) bool + isBookExist(name: string): bool - findUserIndexById(id: int): int - saveBorrowedBooks(): void - loadUsers(): void + isBookExist(id: int) bool - findBookIndexById(id: int): int - saveUsers(): void - loadBooks(): void - saveBooks(): void SystemActionHandler **Attributes** bookRepo: BookRepository SystemMenu userRepository: UserRepository borrowedBookRepository: BorrowedBookRepository Attributes LibrarySystem **Operations Operations** Attributes + handleAction(actionCode: int): void + mainMenu(): int <<static>>

- searchBooksByPrefixName(): void

- printBooksSortedById(): void

- addUser(): void

- borrowBook(): void

- returnBook(): void

- printUsers(): void

- exit(): void

- printBooksSortedByName(): void

- printWhoBorrowedBookByName(): void

+ addBookMenu(): tuple<string,int, int> <<static>>

+ searchBooksByPrefixNameMenu(): string <<static>>

+ borrowBookMenu(): tuple<int, int, string, string>

+ printWhoBorrowedBookByNameMenu(): string

+ addUserMenu(): tuple<string>

+ returnBookMenu(): tuple<int, int>

StringUtility

+ split(buffer: string, delimiter: string): vector<string> <<static>>

+ join(tokens: vector<string>, delimiter: string): std::string <<static>>

FileHandler

- writeToFile(filepath: string, vector<string> fileheader, vector<vector<string>> lines): void <<static>>

+ readFromFile(filepath: string, hasHeader: bool): vector<vector<string>> <<static>>

Attributes

Operations

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- systemActionHandler: SystemActionHandler

Operations

+ run(): void