

Name → York City Library
Date 24/01/2020
R-Tech (SR AS)

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Assignment 3 Y

Import Java.util.*

public class Book implements Comparable <Book> {

int bookId;
String title;
String author;

public Book(int id, String t, String a) {

this.BookId = id;
this.title = t;
this.author = a;

}

public int compareTo(Book b) {
return this.title.compareTo(b.title);

public String toString() {

}
return bookId + " - " + title + " - " + author;

```

public boolean equals ( object o ) {
    if ( this == o ) return true ;
    if ( !( o instanceof Book ) ) return false ;
    Book b : ( Book ) o ;
    return this . bookId == b . bookId ;
}

```

```

public int hashCode () {
    return object . hash ( bookId ) ;
}

```

class Library Manager {

```

private final Scanner s : new Scanner ( System . in ) ;
private final ArrayList < Book > books : new ArrayList < > () ;
private final HashMap < Integer, Integer > bid : new
    HashMap < > () ;

```

```

private Book findBookByid ( int id ) {

```

```

    for ( Book b : books ) {
        if ( b . bookId == id ) return b ;
    }
}
```

Sya

```
    }  
    return null;  
  
}  
void addBook(){  
    try {  
        System.out.print("Enter Book ID:");  
        int id = Sc.nextInt();  
        Sc.nextLine();  
        if (findBook(id) != null) {  
            System.out.println("A book with this ID already  
exists.");  
            return;  
        }  
        System.out.print("Enter title:");  
        String t = Sc.nextLine().trim();  
        System.out.print("Enter Author:");  
        String a = Sc.nextLine().trim();  
        book.add(new Book(id, t, a));  
    }  
}
```

System.out.println("Book added \n");

}

catch (InputMismatchException e) {

System.out.println("Error input \n");

sc.nextLine();

}

}

void searchBook() {

try {

System.out.print("Enter Book id to search: ");

int id = sc.nextInt();

Book b = findBook.Byid(id);

if (b != null) {

System.out.println("ID: " + b.bookId);

System.out.println("Title: " + b.title);

System.out.println("Author: " + b.author);

System.out.println("Satis " + issued.containskey(id));

}

```
else {  
    System.out.println("Book Not Found");  
}  
}
```

```
} catch (InputMismatchException) {  
    System.out.println("Invalid input. Please re-enter.");  
    sc.next();  
}  
}
```

```
void returnBook() {
```

```
try {
```

```
    System.out.print("Enter Book Id to  
    return:");
```

```
    int id = sc.nextInt();
```

```
    if (issued.contains(id)) {
```

```
        issued.remove(id);
```

```
        System.out.println("Book returned.");
```

```
}
```

```
else {
```

```
    System.out.println("Book is Not  
    issued.");
```

```
}
```

```

catch (InputMismatchException e) {
    System.out.println("Invalid input");
    sc.nextLine();
}
}

```

```

void menu() {
    int ch;
    while (ch != 6) {
        System.out.println("1. Add Book");
        System.out.println("2. Search Book");
        System.out.println("3. Sort Books");
        System.out.println("4. Issue Book");
        System.out.println("5. Return Book");
        System.out.println("6. Exit");
        System.out.print("Enter choice: ");
    }
}

```

```

try {
    ch = sc.nextInt();
    sc.nextLine();
}

```

```

catch (InputMismatchException)

```

System.out.println("Invalid input")

Sc.nextLine();

}
(Continue)

switch(ch){

Case 2:

add();

Case 1:

SearchBook();

Case 3:

StartBook();

Case 4:

IssueBook();

Case 5:

ReturnBook();

Case 6:

System.out.println("Empty");

Default:

System.out.println("Invalid char");

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public static void main (String [] args) {

 libraryMerger obj = new libraryMerger();

 obj.merger();

}

}