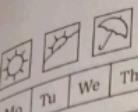


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```
members.put(id, new Member(id, n));
save();
System.out.println("Member added!");
}
```

```
void issueBook (Scanner sc) {
    System.out.print("Book ID: ");
    int b = sc.nextInt();
    System.out.print("Member ID: ");
    int m = sc.nextInt();
```

```
if (!books.containsKey(b) || !members.
    containsKey(m)) {
    System.out.println("Invalid ID!");
    return;
}
```

```
Book bk = books.get(b);
if (bk.issued)
    System.out.println("Already issued!");
return;
}
```

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```
bk.issued = true;  
members.get(m).issuedBooks.add(b);  
save();  
System.out.println("Already issued!");  
return;  
{
```

```
bk.issued = true;  
members.get(m).issuedBooks.add(b);  
save();  
System.out.println("Issued!");  
}
```

```
void returnBook(Scanner sc){  
    System.out.print("Book ID: ");  
    int b = sc.nextInt();  
    System.out.print("Member ID: ");  
    int m = sc.nextInt();
```

```
} if(!books.containsKey(b) || !members.containsKey(m))  
System.out.println("Invalid ID!");
```



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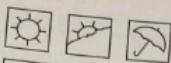
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 return;
}

books.get(b).issued = false;
members.get(m).issuedBooks.remove(Integer.
 valueOf(b));
save();
System.out.println("Returned!");
}

void search(Scanner sc) {
 System.out.print("Search title: ");
 sc.nextLine();
 String key = sc.nextLine().toLowerCase();

for (Book b : books.values()) {
 if (b.title.toLowerCase().contains(key))
 System.out.println(b.id + " " + b.title +
 " by " + b.author);
}



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11 - --- MAIN MENU - - -

```
public static void main (String [] args) {
```

```
    LibraryApp app = new LibraryApp ();
```

```
    app.load ();
```

```
    Scanner sc = new Scanner (System.in);
```

```
    while (true) {
```

```
        System.out.println ("1. add Book 2. Add  
        member 3. Issue 4. Return 5. Search
```

```
        6. Exit ");
```

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

```
        switch (ch) {
```

```
            case 1: app.addBook (sc); break;
```

```
            case 2: app.addMember (sc); break;
```

```
            case 3: app.issueBook (sc); break;
```

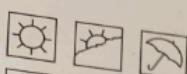
```
            case 4: app.returnBook (sc); break;
```

```
            case 5: app.search (sc); break;
```

```
            case 6: return;
```

```
}
```

```
3
```



Gaurav Rana - 2401420009

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ASSIGNMENT-4

```
import java.io.*;  
import java.util.*;
```

```
class Book {
```

```
    int id;  
    String title, author;  
    boolean issued;
```

```
Book(int id, String t, String a, boolean issued) {
```

```
    this.id = id;
```

```
    this.title = t;
```

```
    this.author = a;
```

```
    this.issued = issued;
```

```
}
```

```
public String toString() {
```

```
    return id + " " + title + ", " + author + ", "
```

```
    issued;
```

```
}
```

```
}
```