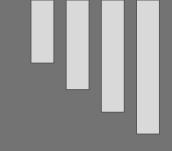
Virtual Library



Members: Matt Oakley, David Ingraham, Cory Cranford, Daniel Thompson



Demo

Use Cases

- Register as a user
- Search for a book
- + Add a book to personal collection

Interaction

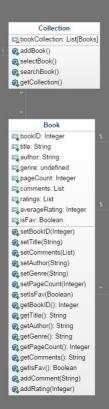
- **■** View Attributes
- Add a comment
- Add a rating
- Set as favorite



Design Patterns



adminKey: Integer



Comment Comment Comment D: Integer Comment

Singleton

- One instance of Library
- Users own Collections
- This is the overarching *Library*

Design Patterns



username: String

password: String isAdmin: Boolean

getUserID(): Integer getUsername(): String

getEmail(): String
getPassword(): String

getIsAdmin(): Boolean

setUserID(Integer)
setUsername(String)

setEmail(String)
setPassword(String)

setPassword(String)
setIsAdmin(Boolean)

setIsAdmin(Boolea

Admin

adminKey: Integer



Book

□ bookID: Integer □ title: String

author: String

genre: undefined

pageCount: Integer

ratings: List

averageRating: Integer

sray: Boolean

setBookID(Integer)

setTitle(String)

setComments(List)
setAuthor(String)

setGenre(String)

asetPageCount(Integer)

setIsFav(Boolean)

getBookID(): Inte

getAuthor(): String getGenre(): String

getPageCount(): Integer

getComments(): String
getIsFav(): Boolean

addComment(String)

addRating(Integer)

Comment commentID: Integer

description: String

, recomment (comment)

Rating

rating: Integer

removeRating(Integer)

getAverageRating(List): Float

Library

bookCollection: List[Books]

getTotalNumBooks(): Integer

Strategy

- Different forms of media
- Different step in algorithm for interaction
- listenToMP3() vs playGame()

Design Patterns

User

userID: Integer username: String email: String

password: String

isAdmin: Boolean

agetUserID(): Integer getUsername(): String agetEmail(): String

getPassword(): String

@getIsAdmin(): Boolean

setUserID(Integer) setUsername(String)

setEmail(String) setPassword(String)

setIsAdmin(Boolean)

Admin

adminKey: Integer

Collection bookCollection: List[Books] addBook() selectBook() searchBook() aetCollection()

Book

■ bookID: Integer

title: String author: String removeComment(Comment) genre: undefined

Rating

rating: Integer

averageRating: Integer isFav: Boolean

setBookID(Integer)

pageCount: Integer

comments: List

ratings: List

setTitle(String)

setComments(List) setAuthor(String)

setGenre(String)

setPageCount(Integer)

a setIsFav(Boolean) agetBookID(): Integer

agetTitle(): String

@ getAuthor(): String agetGenre(): String

a getPageCount(): Integer

getComments(): String agetlsFav(): Boolean

addComment(String)

addRating(Integer)

Comment commentID: Integer description: String

ratingID: Integer

@ removeRating(Integer)

@ getAverageRating(List): Float

Library bookCollection: List[Books]

findBook(String): Book @getTotalNumBooks(): Integer

<u>Flyweight</u>

- Large amount of Book objects
- Too many extrinsic values
 - Title
 - Author
 - Page Count

Future



K Functionality

- Implementing functionality for Administrators
- User and Collection objects persist in database
- Support different forms of media



Commercial Availability

- Release on Android and iOS App Stores