IT-314

SOFTWARE ENGINEERING

Group 10

Lab - 5

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FlipThePage: An ebook library system

Tasks:

Develop the Class diagram for Sprint 1/2 (first derive the sequence diagram by identifying entity/boundary/control objects).

- Identify Entity/Boundary/Control Objects
- Develop Sequence Diagram
- Develop Analysis Domain Model (i.e., Class Diagram)
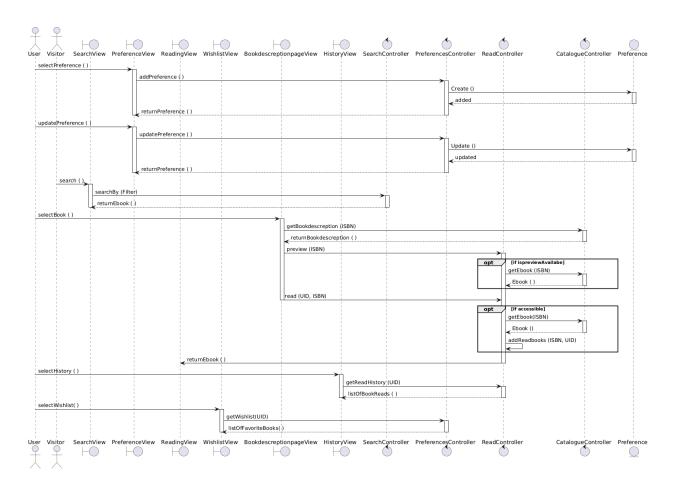
Sprint 2:

- **User Stories**:

1. As a User, I want to set/update my preferences so that I can find books tailored to my interests.
2. As a Visitor, I want to filter search results so that I can easily find relevant eBooks.
3. As a Visitor, I want to preview eBooks so that I can get a glimpse of the content before deciding to register or purchase.
4. As a User, I want to add eBooks to my wishlist so that I can keep track of books I'm interested in.
5. As a User, I want to view my reading history so that I can revisit books I've read before.
6. As a User, I want a reading interface where I can read the book online.

Entity/Boundary/Control Objects:

Entity Objects	Boundary Objects	Control Objects
User	Preference View	Catalog Controller
Visitor	Search View	Preference Controller
Preference	Book Description View	Reading Controller
	Reading View	Search Controller
	History View	
	Wishlist View	

Sequence Diagram:

Participants (lifelines): User, Visitor, SearchView, PreferenceView, ReadingView, WishlistView, BookdescreptionpageView, HistoryView, SearchController, PreferencesController, ReadController, CatalogueController, Preference

- selectPreference ( )
- addPreference ( )
- Create ()
- added
- returnPreference ( )
- updatePreference ( )
- updatePreference ( )
- Update ()
- updated
- returnPreference ( )
- search ( )
- searchBy (Filter)
- returnEbook ( )
- selectBook ( )
- getBookdescreption (ISBN)
- returnBookdescreption ( )
- preview (ISBN)

opt [if ispreviewAvailabe]
- getEbook (ISBN)
- Ebook ( )

- read (UID, ISBN)

opt [If accessible]
- getEbook(ISBN)
- Ebook ()
- addReadbooks (ISBN, UID)

- returnEbook ( )
- selectHistory ( )
- getReadHistory (UID)
- listOfBookReads ( )
- selectWishlist( )
- getWishlist(UID)
- listOfFavoriteBooks( )

Analysis Domain Model (Class Diagram):

PreferenceController

+getUserPreferences(userId)
+updateUserPreferences(userId, Preference)
+addUserPreference(userId, Preference)
+removeUserPreference(userId, Preference)
+getWishlist(userId)
+addBookToWishlist(bookID)

requests

manages

1

1

User

+int userId
+string username
+string email

+addToWishlist(bookID)
+viewReadingHistory()
+readBook(bookID)

Preference

+int preferenceId
+string genre
+string author
+string language

*

is a

uses

uses

Visitor

+filterSearchResults(SearchFilter)
+getBookDescription(bookID)
+previewBook(bookID)
+register()

ReadingController

+Book currentBook
+int currentPage

+openBook(bookID)
+isAccessible(bookID)
+isPreviewAvailable(bookID)
+addHistory(userId, bookID)
+getHistory(userId)
+getReadingHistory()

interacts with

interacts with

CatalogSystem

+List books

+searchBooks(string)
+filterBooks(SearchFilter)
+getBookPreview(bookID)
+getBookDescription(bookID)

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