

Project Proposal:

Libraro Library App

Osman Adam

contact.namso@gmail.com

Start date: 29/09/2024

Introduction:

Libraro, is a library app with many useful features including buying books, uploading pdf documents to read, reading books offline without the need for internet access if the book has been bought and downloaded, notifications to remind users when to read a book or if there are any new book releases, user authentication this feature allows users to login to their accounts and find their favourite books and pre-purchases, reading progress tracking this feature enables users to keep track of their progress on a specific book.

Purpose:

- Libraro Library App's primary purpose is to provide users with a reliable way to read and store their favourite books, track their progress, and get reminders when ever they would, making them capable of accessing many features on one place.

Objectives:

- Allowing users to read and buy books.
- Reading pdf files buy uploading them to the app.
- Saving books to a wish list for future purchases.
- Reviewing and rating books.
- Users can enable a notification feature to remind them when to read a book.
- Progress Tracking, users can continue to read a book where they left off.
- Ensuring data security and privacy.
- Analytics, users can see a full report on their interactions with the app, how many hours they spent reading.
- Accessibility features, such as text scaling and eye friendly colours.

Target Audience:

- book enthusiasts, those who enjoy reading books from any genre.
- professionals, users who wish to read pdf documents with better accessibility features.
- Students, from primary school to a postgraduate level Libraro can serve as a learning app allowing students to upload and read their books, or just enjoy reading the available books.

Features:

- **Search Functionality:** users have the capability to search for their favourite apps.
- **User Authentication:** users can login to their accounts to access their pre-bought books.
- **Book Filtering and Sorting:** users can sort books by category, price, or author.
- **Reading Progress Tracking:** users can bookmark their reading progress, allowing them to continue reading where they left off.
- **Offline Support:** enabling offline support to the pre-uploaded books by the user, and any bought books.
- **Book Reviews:** users can leave a rating for any book they have read or purchased.
- **Notifications:** users will receive notifications regarding any new books releases and book reading reminders.
- **Wishlist Feature:** users can save books to their wish list, enabling them keep track of what they would like to buy on the future.
- **Analytics:** basic analytics which provides users with a report on their interactions in the app.

Technical Overview:

- Libraro Library App will be using many different dependencies and features that are mostly pre-integrated into android studio.
- **Development Environment:**
- Primary IDE: Android Studio
- Language: Kotlin
- Layout Language: XML
- **Architecture:**
- Design Structure: Model-View-ViewModel
- Components: Fragments, Services, Packages, Activities, and XML Layouts
- **Data Management:**
- Room Database to store all the books names, descriptions, and authors.
- LiveData and ViewModel for displaying real-time data and managing UI-related data.
- Repository Patterns.

- **File Attachments:**
- Integration with Android's file system.
- **Security:**
- Encryption utilities for protecting sensitive users' data.
- Android Keystore System for secure key storage.
- **Notifications:**
- Firebase Cloud Messaging (FCM) for push notifications.
- NotificationsCompat for creating and managing notifications.

Performance Optimisations:

- RecyclerView with efficient view holders allowing smooth scrolling and navigation.

Libraro Development TimeLine:



Libraro Timeline.pdf

Expected Outcome:

1. User Adoption:
 - Achieve 100+ downloads within 6 months of launch.
 - Reach at least 200 active users by the end of the year.
 - Attain an average daily user to monthly active users' ratio of 20%
 - Achieve a total of 50 completed books by the end of the first 6 months.
2. User Satisfaction:
 - Achieve at least a rating of 3.0+ stars on google play store.
3. Accessibility:
 - Meeting the WCAG 2.1 AA standards for accessibility.
 - Provide support for at least 2 languages by the end of the second year.