

**UGANDA MARTYRS UNIVERSITY  
RUBAGA CAMPUS**

**FACULTY OF SCIENCE  
DEPARTMENT COMPUTER SCIENCE AND INFORMATION SYSTEMS**

**MOBILE COMPUTING AND NETWORKS**

**FINAL ASSESSMENT**

**ACADEMIC YEAR 2023/2024 SEMESTER 2, YEAR 2**

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

**BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

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# **Project Proposal Book Reader Mobile Application**

## **Introductions**

This proposal outlines the development of an innovative online eBook mobile application designed to revolutionize how users access and read books. The application will cater to a wide audience, offering a vast library of books across various genres, a user-friendly interface, and enhanced reading features. Our goal is to provide a seamless reading experience that leverages the convenience of mobile technology.

## **Project Objectives**

- Develop a robust and user-friendly eBook mobile application.
- Create an extensive digital library with diverse categories.
- Integrate features such as customizable reading modes,
- Ensure cross-platform compatibility with Android
- Establish partnerships with publishers and authors for exclusive content.

## **Target Audience**

- Passion readers seeking a convenient way to access books.
- Students and academics in need of educational resources.
- Professionals requiring access to reference materials and industry-related books.
- Casual readers looking for entertainment and relaxation.

## **Key Features**

### **User-Friendly Interface:**

- Intuitive navigation and personalized user profiles.
- Seamless book browsing and search functionality.

### **Extensive Digital Library:**

- Access to thousands of eBooks across various genres.
- Regular updates with new releases and bestsellers.
- Exclusive content from partnered publishers and authors.

### **Customizable Reading Experience:**

- Adjustable font sizes, styles, and background colors.
- Day and night reading modes.

### **Bookmarking features.**

- Offline Reading:
- Download books for offline access.
- Sync progress across multiple devices.

### **User Registration and Login**

- Email Registration: Users can sign up using their email address and set a password.
- Social Media Integration: Users can register and log in using their social media accounts

### **EBook Library**

- Extensive Collection eBooks Library across various platform
- New Releases and Popular Titles Highlight new and trending books.
- Advanced Search: Users can search for eBooks by title, author, genre, or keywords.
- Filters: Users can filter results by publication date, ratings, price, etc.
- Personalized Recommendation Based on reading history, preferences, and behavior.

### **Reading Interface (customizable reading)**

- Font Size and Style: Options to adjust font size and choose different fonts for better readability.

### **Offline Reading:**

- Users can download eBooks from Trip Readers to read offline.
- Manage Downloads: Interface to manage downloaded books, including deleting and updating them.

### **Bookmarks and Annotations**

- Add Bookmarks: Users can bookmark pages to easily return to them later.
- Manage Bookmarks: View, edit, and delete bookmarks.
- Add Notes: Add personal notes and comments to highlighted sections.

### **Social and Community Features**

- Share Quotes: Share favorite quotes or passages on social media.
- Recommend Books: Recommend books to friends through social media or email.

### **Follow and Interact:**

Follow Authors: Get updates and notifications from favorite authors.

Follow Other Readers: Connect with other readers, see their reviews, and reading lists.

**Discussion Groups:**

- Reading Groups: Join or create reading groups for discussions.
- Forum: Participate in forums to discuss books, authors, and genres.

**Subscription Models:**

- Free Tier: Access to a limited number of eBooks with ads.
- Premium Subscription: Ad-free experience, access to exclusive content, and additional features.
- Special Offers: Periodic discounts and bundle deals.

**Scalability Features**

- Cloud-Based: Use of cloud services (e.g., AWS, Google Cloud) for scalable storage and computing.
- Auto-Scaling: Infrastructure scales automatically based on load to ensure performance.

**Content Management:**

- Easy addition of new content.
- Regular Updates: Continuous updates to the eBook catalog with new releases and genres.

**User Base Management:**

Analytics: Monitor user engagement and app performance with integrated analytics.

**Feature Expansion plan**

- Modular Architecture: New features can be added without overhauling existing systems.
- Support for Audiobooks: Future integration of audiobooks and other multimedia content.
- Performance Optimization:
- Regular Updates: Frequent updates to fix bugs and improve performance.
- Efficient Data Handling: Optimized data queries and caching mechanisms to ensure smooth operation.

## **Scalability**

Scalable backend architecture to support future feature additions.

Cloud-based infrastructure to handle increasing user load and data storage.

### **Infrastructure:**

- Cloud-based infrastructure to handle increasing user load and data storage.
- Scalable backend architecture to support future feature additions.

### **Social and Community Features:**

- User reviews and ratings.
- Book recommendations based on reading history.
- Book clubs and discussion forums..

### **Cross-Platform Compatibility:**

- Available on Android devices.
- Syncing capabilities across different platforms.

## **Technical Requirements**

- Front-End Development: java for cross-platform mobile development and XML
- Back-End Development: Node.js and Express for server-side operations.

## **Development Timeline**

### **Phase 1: Planning and Design (3 Days)**

research and requirement analysis.

UI/UX design and prototyping.

### **Phase 2: Development (1 week)**

Front-end and back-end development.

Database setup and integration.

Implementation of key features.

### **Phase 3: Testing and (2days)**

Error fixing

Bug fixing and performance optimization.

## **Budget Estimate**

- Development Costs:
- Front-End Development: 30,000
- Back-End Development: 25,000
- Database Management: 10,000
- Cloud Services: 5,000
- Design and UX/UI:
- Design and Prototyping: 15,000
- Airtime,Data,Transport and Launch:
- Marketing Campaign 20,000
- Total Estimated Budget: \$125,000

## **Risk Management**

- Technical Risks:  
Mitigation: Employ experienced developers and conduct thorough testing.
- Market Risks: Mitigation: Conduct market research and competitive analysis to ensure market fit.
- Financial Risks:  
Mitigation: Secure funding and maintain a contingency budget.

## **Conclusion**

The proposed book reader eBook mobile application aims to provide an unparalleled reading experience, combining a vast digital library with cutting-edge technology and user-centric features. With a clear development plan, a dedicated team, and a strategic marketing approach, we are confident in the successful launch and growth of this application.

## References

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