Mobile Bibliography Manager and Bar Code Scanner

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# Features Implemented

This section will outline the features implemented in the application and what hardware or software used to implement it.

## Hardware and Software

|  |  |  |
| --- | --- | --- |
| **Feature** | **Hardware** | **Software** |
| Log in | N/A | Firebase Login |
| Barcode Scanner | Camera | Mobile vision API |
| Book Data | N/A | Google books API |
| Data Storage/Retrieval | N/A | Firebase |
| Clear Activity | Accelerometer | N/A |
| Location/Maps | GPS | Google Maps |

# Requirements

This section will outline each requirement set out in the proposal and if I meet the requirement or not.

## Functional Requirements

1. **MF01 - Scan a books barcode in real time using the device camera**

This requirement was meet, and the feature is working in the application using the mobile vision API.

1. **MF02 -Get book information via web base API**

This requirement was meet, and the feature is working in the application using the Google books API.

1. **MF03 - Store book references in a remote database**

This requirement was meet, and the feature is working in the application using Firebase.

1. **SF04 - Google Account Sign in**

This requirement was partially meet, the feature is working in the application using Firebase. This is a “should have” requirement using the google account was not critical to the application.

1. **CF05 - Add Report Reminder to Google Calendar**

This feature was not implemented, as this is a “could have” feature developing this feature would have taking away from more important requirements.

1. **CF06 - Export Bibliography to email, google drive or text file**

This feature was not implemented, as this is a “could have” feature developing this feature would have taking away from more important requirements.

1. **WF07 - Accelerometer gesture to clear text inputs**

This requirement was meet, and the feature is working in the application using the Accelerometer.

## Non-Functional Requirements

1. **NF01 Usability The application must be easy to use and navigation simple**

This requirement was meet, the application is easy to use, and the navigation is simple.

1. **NF02 Reliability The application must not crash, and no data loss should occur**

This requirement was meet, testing was carried out and no crashes occur during the usage of the app. This was done with try catch statements and added message to the logcat such as stack traces. The data is stored in Firebase, so no data loss can occur, users can not access other user’s data.

1. **NF03 Performance Load times of the application must not be excessive**

This requirement was meet due to how my data is structured in the database. For example, the data objects are as flat as possible only the data that the user requires is retrieved from the database reducing load times.

1. **NF04 Aesthetics The application must be aesthetically pleasing and consistent.**

This requirement was meet, the design is simple and pleasing to look at.