

By Sravan Jayanthi

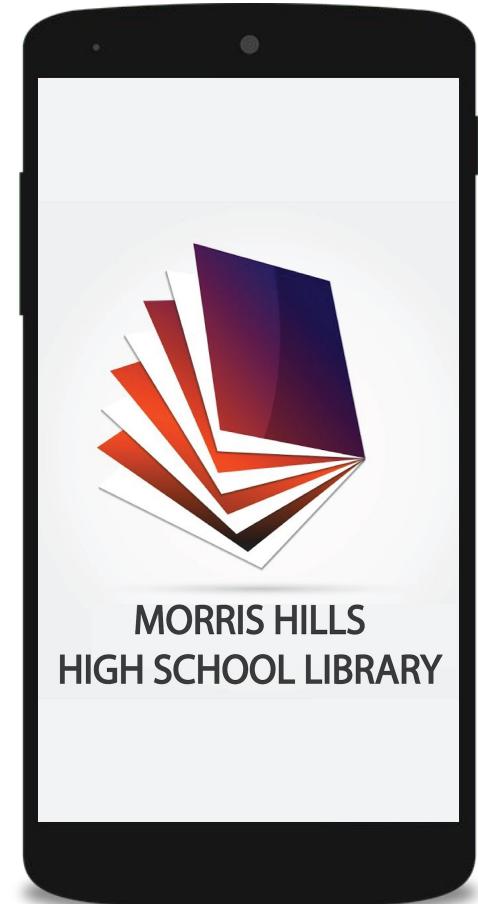


MORRIS HILLS HIGH SCHOOL LIBRARY

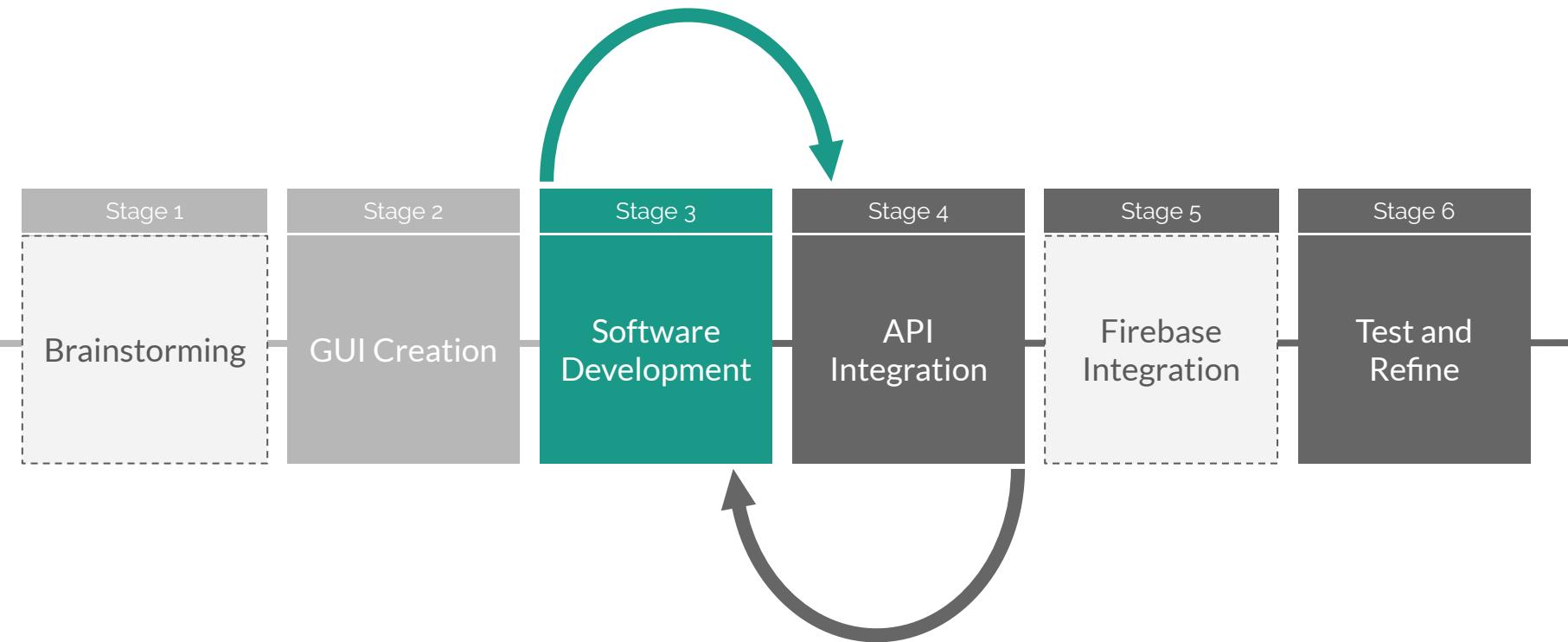
Overview

Morris Hills High School Library App

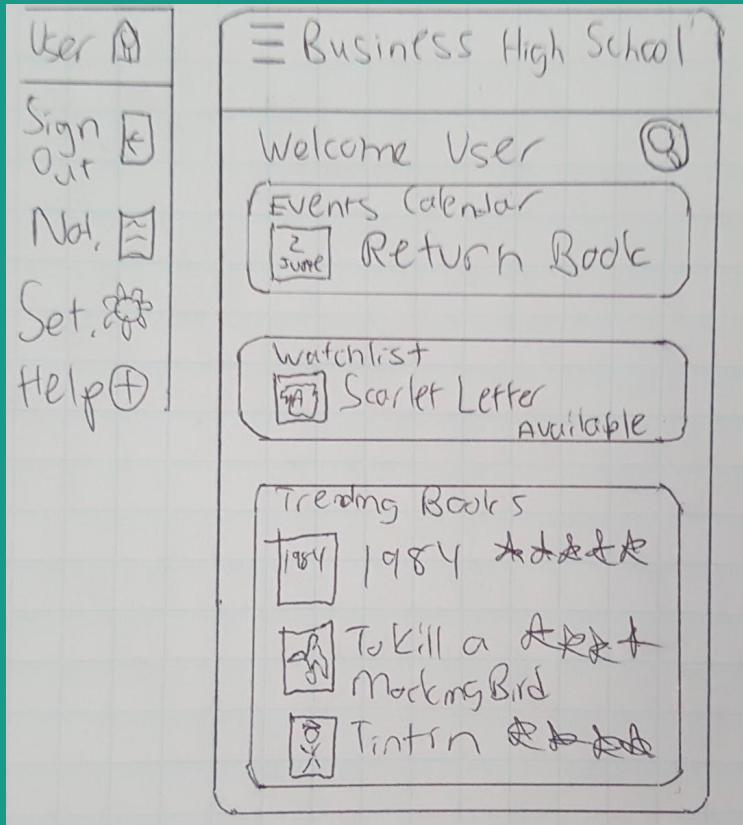
- Browse through books- checkout and **reserve** books if interested
- Access information on the book (rating, author, etc.) and its **availability** to check out.
- Search books based on categories such as the **average rating**, **trending books**, or **recommended books**.
- Share their interest on **social media** or **rate** and write a review of the book for other users' reference



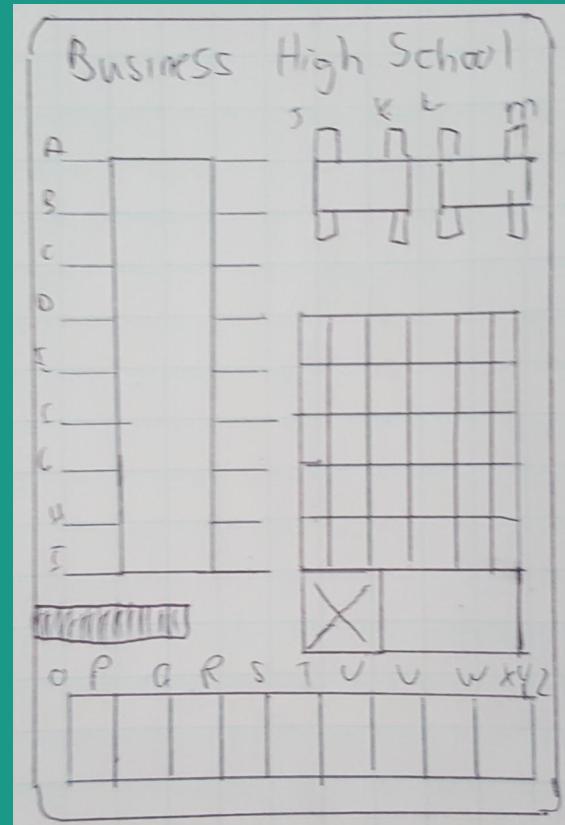
Application Development



Brainstorming



Main Activity

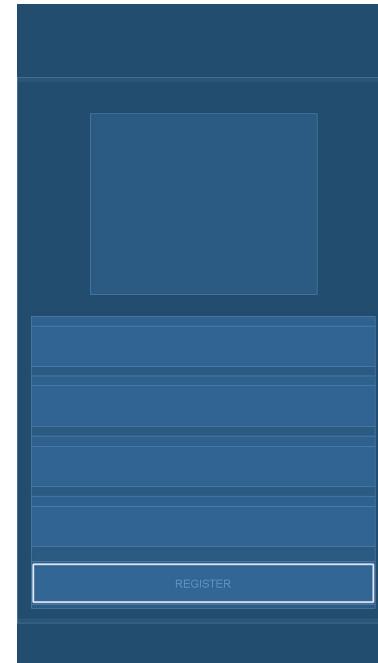


Map Screen

GUI Creation

02

- Utilized Extensive Markup Language (XML) to create the Graphical User Interface
- Designed layouts in LinearLayout style to ensure compatibility with all types of devices
- Standardized each layout with heading title and navigation bar



User Interaction

Interface designed centered on user experience to allow for easy navigation and action

Application Implications:

- Items in the app are **clickable** and lead to pages that provide **more detail** and **information** for the user
- Buttons are available all throughout to give users **opportunity** to go to specific activities
- Navigation bars and drawers increases **accessibility** for key activities

```
@Override  
public void onListItemClick(String clickedBook) {  
    Intent intent = new Intent(BooksDetail.this,  
    BooksDetail.class);  
    intent.putExtra("Identification", clickedBook);  
  
    if (mToast != null) {  
        mToast.cancel();  
    }  
  
    String toastMessage = "Item " + clickedBook + "  
clicked.";  
    mToast = Toast.makeText(this, toastMessage,  
    Toast.LENGTH_LONG);  
    mToast.show();  
  
    startActivity(intent);  
}
```

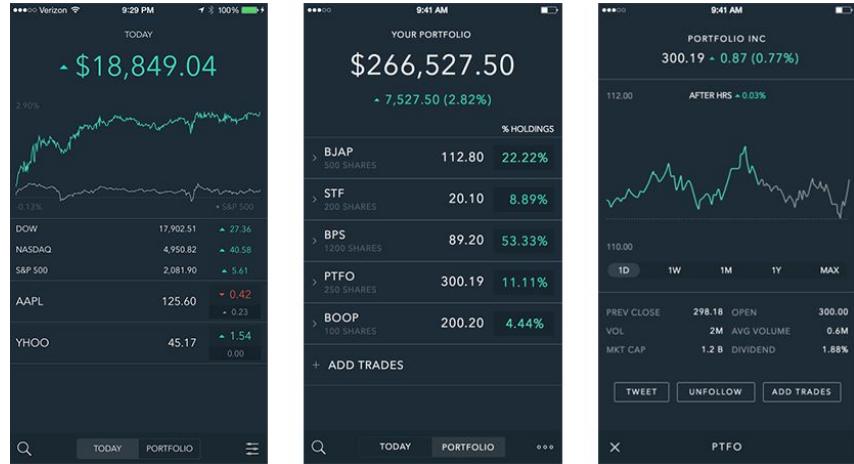
Ex: This method responds to the click of a book item and directs the request to a detailed page about that book

Interface Inspirations/Options

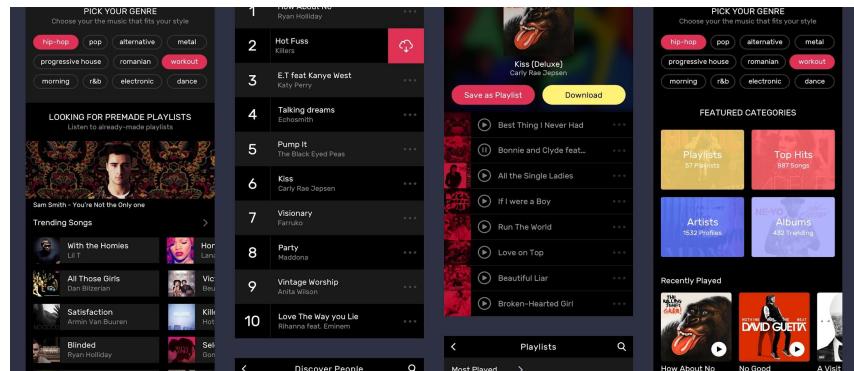
Weather Application



Stocks Application



Music Application



Application Parameters

03



0
1

Internet/Wifi Access

The application is integrated with a online server and the user is expected to have a connection to the internet to be able to utilize all the features of the application.

Social Media Access

The application allows users to utilize Social Media platforms by sharing information about the app as well as books and events the user is interested in.

Communicate



Share

0
2



0
3

Android Device

The application is available on all android mobile and tablet devices and the application will see IOS and Windows roll out soon.

API Integration

04

02 | Glide Server

01 | Recycler Views

BOOKS

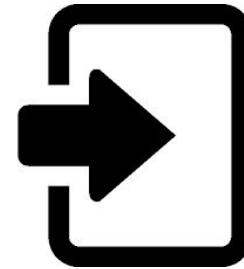
Category
Item 0
Item 1
Item 2
Item 3
Item 4
Item 5
Item 6
Item 7
Item 8
Item 9

CALENDAR

Item 0
Item 1
Item 2
Item 3
Item 4
Item 5
Item 6
Item 7
Item 8
Item 9



glide



03 | Content Providers



SHARE

04 | Navigation Bar



Home



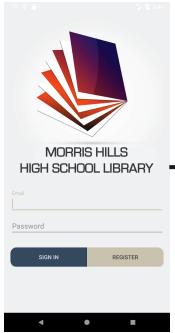
05 | Splash Screen



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Application Flow

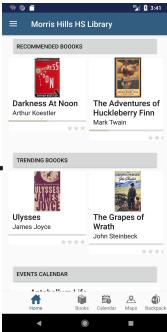
05



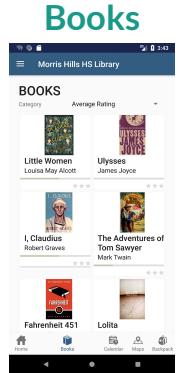
Login



Register



Home



Books



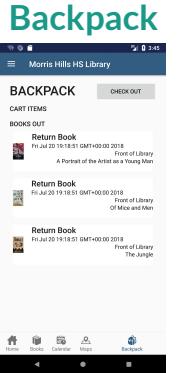
Map



Detail



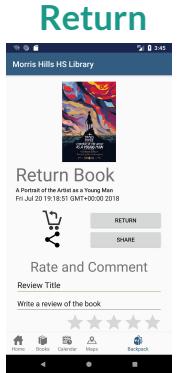
Calendar



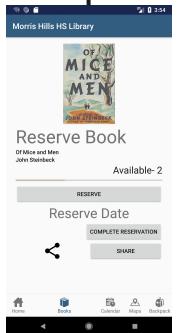
Backpack



Detail



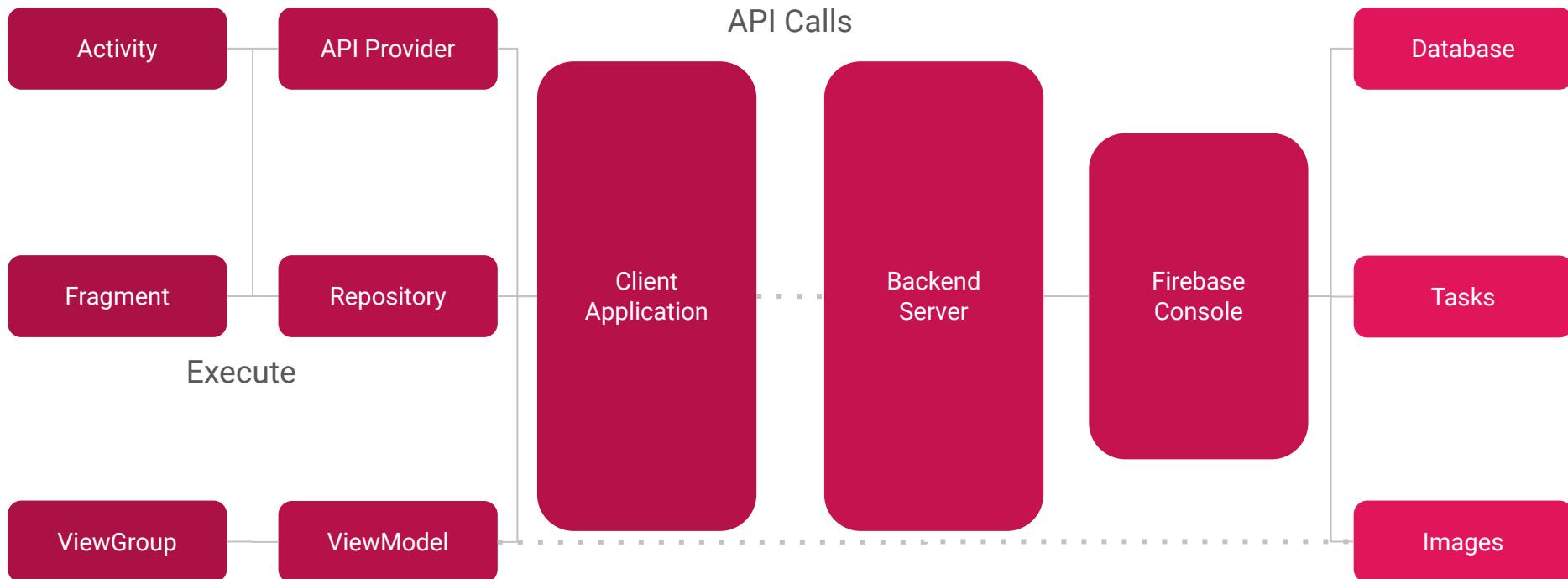
Return



Reserve

Application Structure

JSON
Export



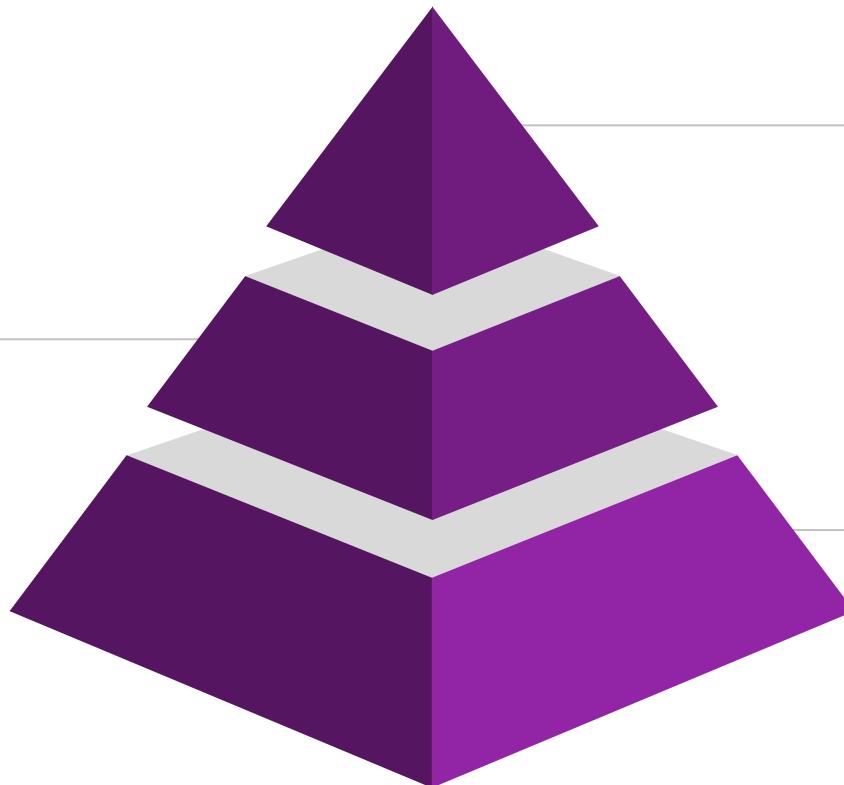
Firebase Integration

06

Firebase Database

Database Storage for Users
and Books

Utilizes Industry
Standard JSON format



Firebase Authentication

User Login and Registration
Services

Firebase Storage

Image Storage for Users
Profiles and Book Covers

Application Capabilities

95%

Current Application
Capabilities

- Application is backwards compatible
 - Target SDK 26
- Integrated mobile hardware utilization in camera
- Firebase API effectively handle communication for queries between the server and local devices

4

Additional Platforms
Explored

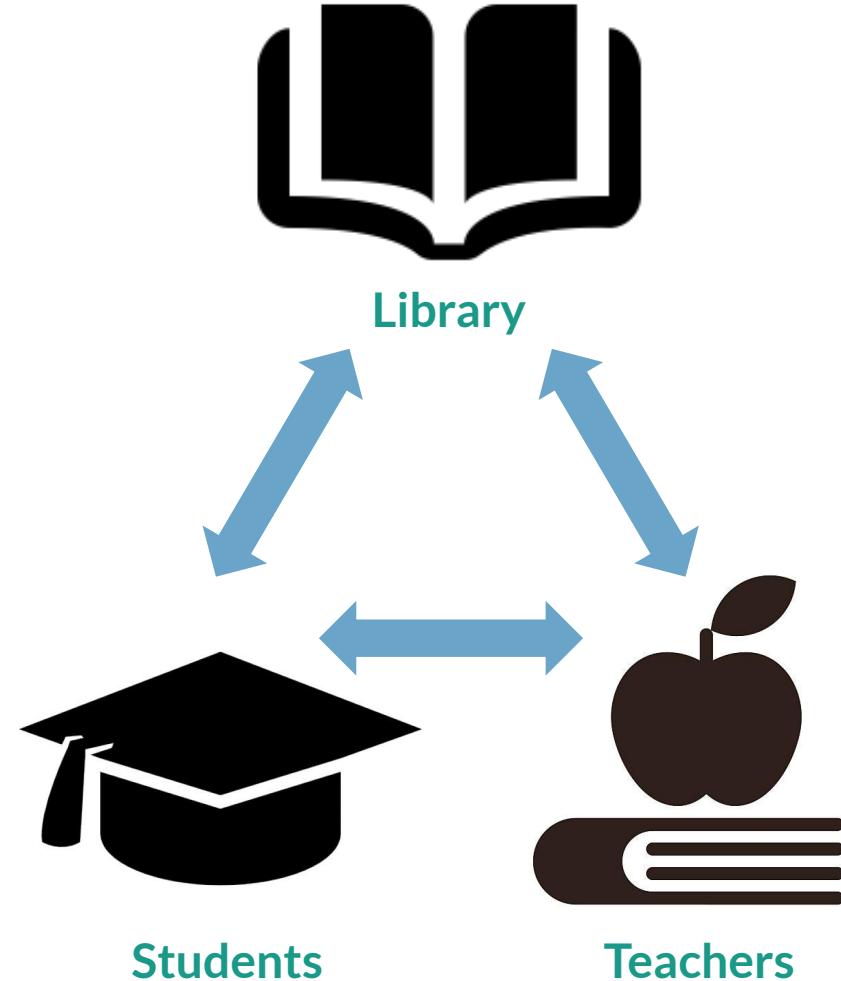
- Implementation of Social Media APIs
 - Facebook
 - Twitter
- Offline operation for app
- Firebase Integration allows for easy expansion to other platforms
 - IOS
 - Windows



Target Audience

User Benefits

1. Student and Teachers get **specialized book recommendations**
2. Real time **information** about the status of books they are interested in
3. View **map** of school library to locate important areas for their work
4. Students can view **library events** being hosted by Teachers
5. Teachers can **write reviews** and **rate books** to provide their **insight** for students





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Thank you.

Feel free to test the application and ask questions.





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