



LKS Kota Tangerang 2024 – IT Software Solutions for Business (Mobile)

EsemkaLibrary

Indonesia

EsemkaLibrary represents a paradigm shift in library management, offering comprehensive solutions tailored to meet the evolving needs of modern libraries. Developed exclusively for the Android platform, this innovative application embodies efficiency, accessibility and a seamless user experience. EsemkaLibrary wants features such as logging in, registering, viewing books, being able to bookmark books and viewing their profiles.

You as a developer are asked to develop an Android mobile application. then **EsemkaLibrary** already has a web api. So, you just use your Android application connected to the web api.

Content

1. EsemkaLibrary.pdf
2. EsemkaLibrary.API
3. Assets

Instructions for Competitors

1. Run Web API

Run the API that has been given to you in the “Web API” folder. This is the data source that you will use in the application creation process. then double click on the **EsemkaLibrary.exe** file. Then on the Mobile you can use <http://10.0.2.2:5008> for the url localhost and <http://10.0.2.2:5008/images/> for the image url.

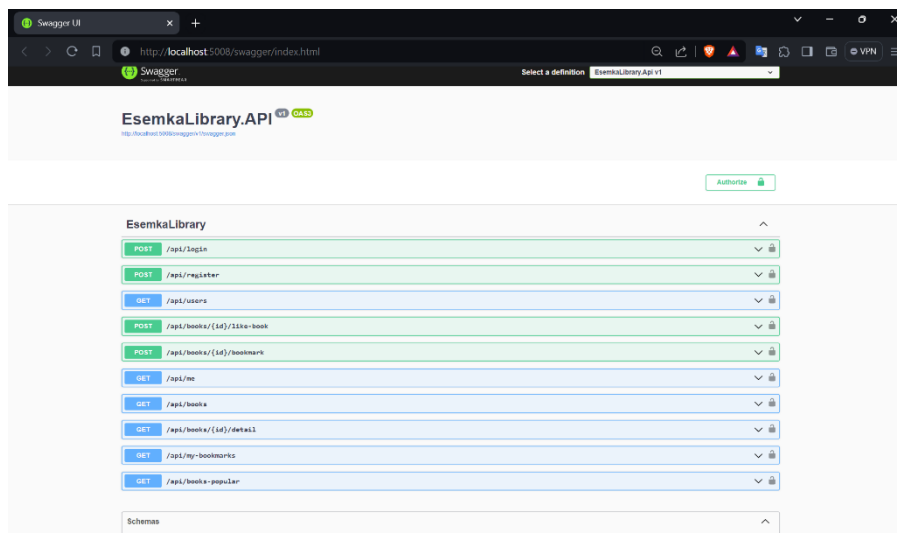


Figure 1. EsemkaLibrary Web API Documentation

Responsibilities

Description	Tasks
Project criteria	<ul style="list-style-type: none"> ✓ The project name must be in format “Mobile_[XX]” where XX is your PC number. ✓ Time management is a crucial thing for this project. So, manage the given time wisely and submit all your works on time.
Application User Interface	<ul style="list-style-type: none"> ✓ You are allowed to change some components as long as it doesn’t interfere the business logic and flow. ✓ There are no bonus marks for design (features > design). ✓ Provides scrollbar to user when the contents shown doesn’t conveniently fit to the application ✓ You must follow all existing components as designed and without missing a single thing, whether it’s Title, labels, buttons or images.
Validation and error messages	<ul style="list-style-type: none"> ✓ The application must runs well without any crashes. Display useful error message to the users when needed. ✓ Validation for every input process is a must. ✓ Analyze the required validation that is needed in the application. Especially the validations that are not explicitly stated in this project description. This is one of the marking criteria for your analysis result. ✓ Specific validation will be included in the project description.

1. Login Page

The Login Page serves as the initial entry point into the system, where users are required to input their username and password for authentication. The password field must be masked.

- **When the user presses the "Login" button, the following will happen:**
 - If the credentials are invalid, you will see an error message **"Please correct the error and try again"**. The error message will tell you what is wrong with your login credentials.
 - The Web Api will return a **JWT Token**, and that token will be used to get and post data. The token using for access all screen, if the token is expired the user will be redirected to the Login Page. The expired token only set for 2 minutes.
 - If the login is successful, the user will be redirected to the **Home Page**.
- **When the user presses the "Register" label, the following will happen:**
 - The user will be redirected to the **"Register Page"** page.

9:57

EsemkaLibrary

Username

Password

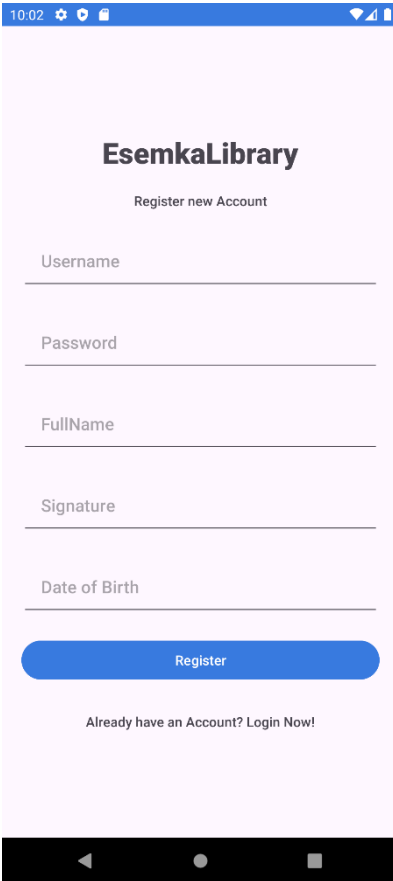
Login

Don't have an Account? Register Now!

2. Register New User Page

This is the page where new user can register for an account.

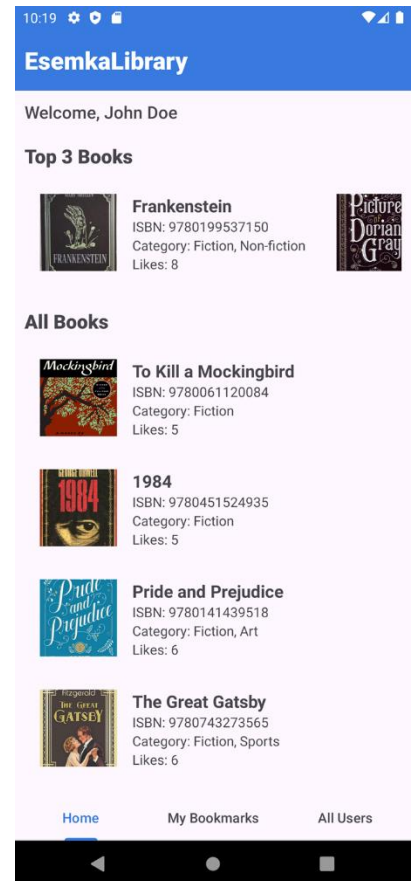
- **When the user presses the "Register" button, the following will happen:**
 - o The system will validate that all input must be filled in
 - o If the validation is successful, the system will send request data to the Web API.
 - o If the username provided is already in use, the system will display an error message indicating that the username is already taken. This validation is performed based on the HTTP response code received from the server, with a status code of 409 indicating that the username is already in use.
 - o If the register is successful, the user will be redirected to the **Login Page**.



The screenshot shows a mobile application interface for "EsemkaLibrary". At the top, there's a status bar with the time 10:02 and various icons. Below the app title, the text "Register new Account" is displayed. The form consists of five input fields: "Username", "Password", "FullName", "Signature", and "Date of Birth". Each field has a horizontal line indicating where to enter text. Below these fields is a prominent blue button labeled "Register". At the bottom of the form, there is a link that says "Already have an Account? Login Now!". The entire form is set against a light purple background. At the very bottom, there is a black navigation bar with standard Android icons (back, home, recent apps).

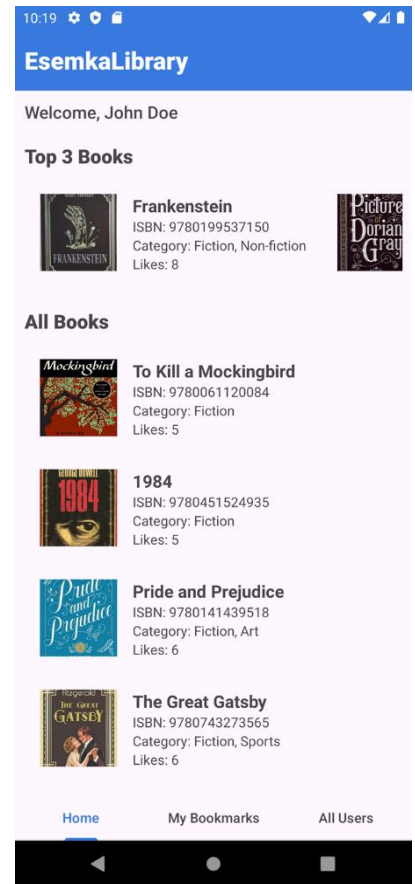
3. Home Page

The Home Page features a bottom navigation bar that allows users to seamlessly navigate between different sections of the application. The bottom navigation bar contains the following tabs: **Home**, **Bookmarks**, and **All Users**. When one of the bottom navigation buttons is pressed, the content selected by the user will appear.



4. Home Content Page

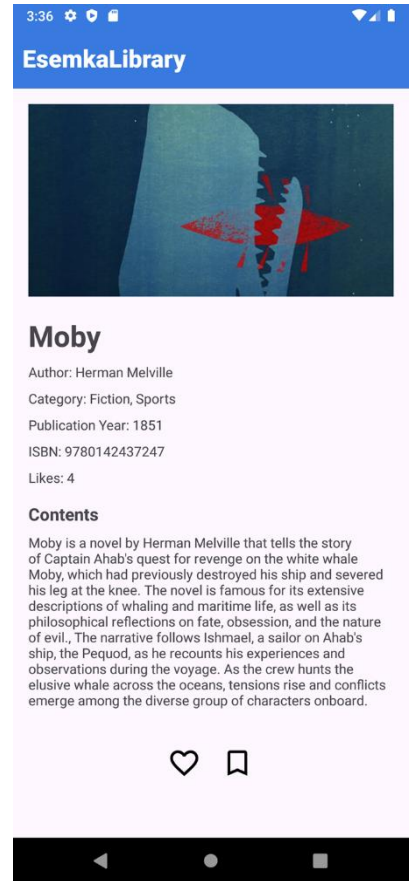
The Home page welcomes users with a personalized greeting, displaying the Title, logged in user's **full name at the top**. Additionally, this page features a section **showing the top 3 books**, and **a list of books**. When a user clicks on a specific book from the Home Page, the user is redirected to the **Book Detail Page**. Here, users can find comprehensive information about the selected book



5. Book Detail Page

The Book Detail Page provides users with detailed information about the selected book.

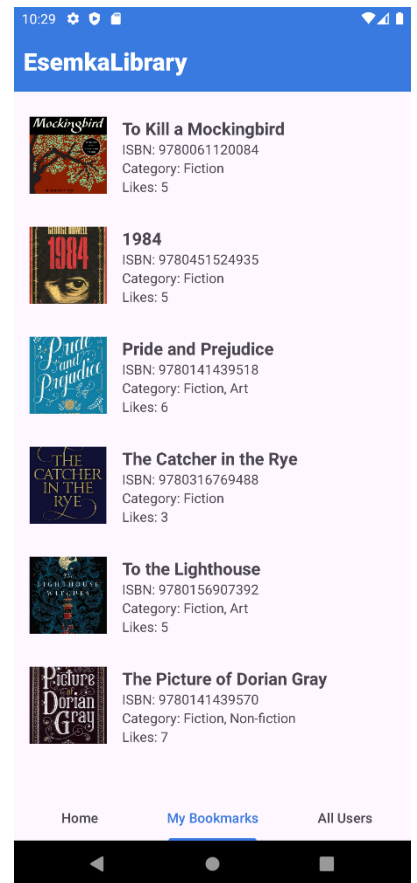
- **Bookmarking:**
 - By clicking the bookmark icon, users can add the book to their list of saved bookmarks, making it convenient to revisit later.
 - If the user is already liked or like, the icon will change (baseline_bookmark_24.xml) see Assets folder, otherwise (baseline_bookmark_border_24.xml).
- **Liking:**
 - The User can press the like button.
 - If the user is already liked or like, the icon will change (baseline_favorite_24.xml) see Assets folder, otherwise (baseline_favorite_border_24.xml).



6. Bookmark Content Page

The Bookmark Page allows users to conveniently access and manage the books they have bookmarked. Here are the main functionalities:

- View Bookmarks:
 - Users can see a list of books they have bookmarked, providing quick access to their saved selections.
- Navigate to Book Detail:
 - When a user selects a book from the list, they are redirected to the Book Detail Page for that specific book. This allows users to see content of the selected book.



7. All User Page

The All-User Page displays the user's information and to see all users who have EsemkaLibrary accounts.

