

# ***BookHeaven*** Software Development Plan (SDP)

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## **1. Project Overview**

### **1.1 Provide a clear summary of your project**

***BookHeaven*** is a web-based communal platform that permits users of this website to track the books they've read, are currently reading, or plan to read. ***BookHeaven*** also enables users to discover new books through community recommendations and write reviews.

### **1.2 Project Title and Brief Description**

***BookHeaven*** is a social book tracking platform where users can keep track of books they have read, are currently reading, or plan to read. Users can write reviews, create reading lists, and discover what others are reading.

### **1.3 Problem Statement**

Book lovers often lack a dedicated platform where they can both track their reading habits and interact meaningfully with a like-minded community. Existing solutions are general (as part of larger social networks).

### **1.4 Target Users**

- Individuals with a reading habit
- Students and academics
- Readers seeking book recommendations
- Anyone interested in book reviews

## 1.5 Core Features

1. **Book Tracking System:** Users can add books to their "read", "currently reading", or "to-read" lists.
2. **Reviews and Ratings:** Users can leave reviews and rate books on a 5-star scale.
3. **User Profiles:** Each user has a personal profile showing their reading history and favorite genres.

## 1.6 What Makes It Unique?

### Competitors:

- **Goodreads:** A globally popular platform but lacks sufficient Turkish content and has an outdated user interface.
- **1000Kitap:** A local (Turkish) platform with limited interaction features, a cluttered UI, and weak discovery tools.

### What Makes BookJourney Different:

- A clean, modern, and user-friendly interface
- Focus on Turkish literature

## 1.7 Monetization Plan.

→ **Ad Revenue:** Targeted ads from publishers and bookstores.



## 2. Technology Stack

### 2.1 Technologies and Tools Overview

Our technology stack combines modern, scalable, and developer-friendly tools to build a responsive, maintainable, and high-performance web application. The stack includes:

- **Frontend:** Vue.js
- **Backend:** Node.js with Express.js
- **Database:** PostgreSQL
- **Authentication & Backend Services:** Supabase
- **Version Control:** Git + GitHub
- **Deployment:** Vercel (Frontend) & Render.com (Backend)

### 2.2 Framework/Library

**Vue.js** will be used for the frontend.

**Why it's suitable:**

- Gentle learning curve
- High Performance
- Excellent Tooling and Ecosystem

On the backend, we'll use **Express.js** (within Node.js environment).

**Why:**

- Lightweight, fast, and flexible
- Easy to set up REST APIs
- Widely supported and well-documented

## 2.3 Programming Language

We will use **JavaScript** for both frontend and backend development.

**Reasoning:**

- Allows full-stack development with a single language
- Reduces context switching for developers
- Rich ecosystem of libraries and frameworks

## 2.4 Service Providers (e.g., Supabase)

We plan to use **Supabase**.

**What for:**

- Authentication (sign-up, login, social login)
- Realtime database features
- API for user profiles and book tracking

## 2.5 Why Supabase?

- Open-source alternative to Firebase with PostgreSQL support
- Built-in auth and database features speed up development
- Easy integration with React and Node.js
- Scalable and cost-effective
- Familiar SQL queries (vs. NoSQL learning curve)

## 2.6 Database Type & System

### System: PostgreSQL

#### Why PostgreSQL?

- Relational data fits naturally with our models (users, books, reviews, etc.)
- ACID-compliant and reliable
- Supports complex queries and joins (which we'll need for book-user-review relationships)
- Well-integrated with Supabase

## 2.7 Hosting, Version Control, APIs

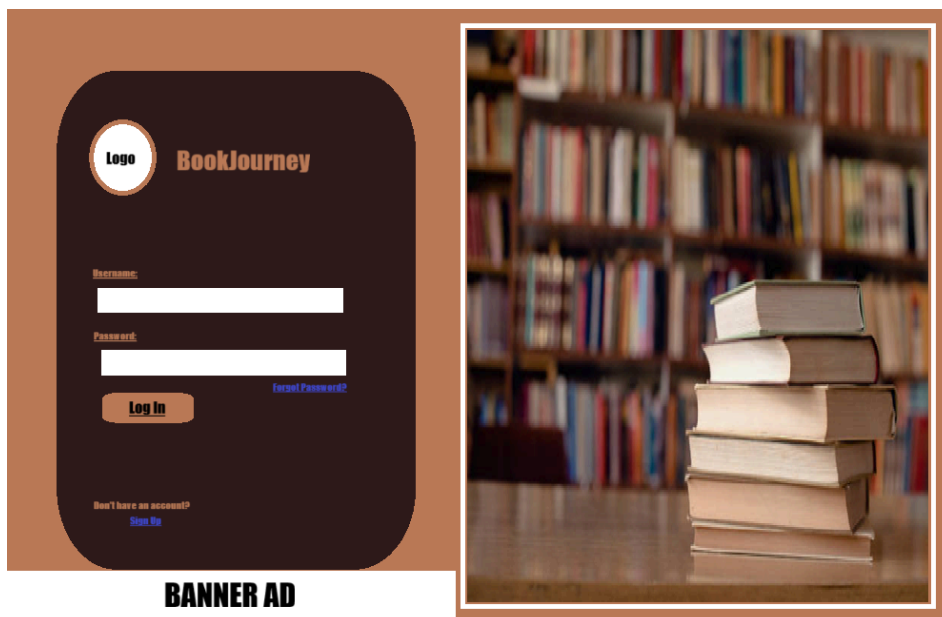
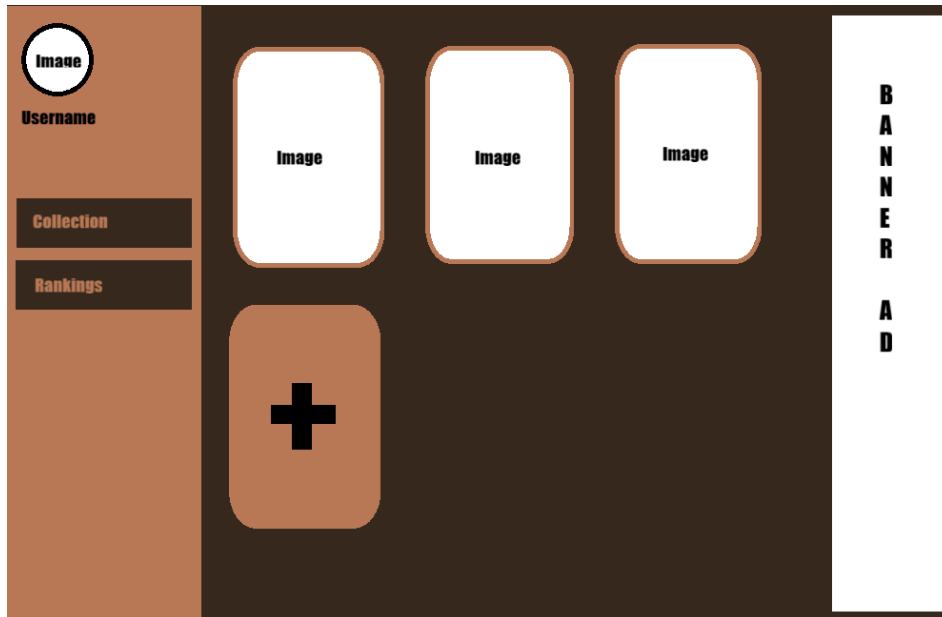
- **Frontend Hosting:** Vercel
- **Backend Hosting:** Render.com or Railway.app
- **Version Control:** Git with GitHub
- **APIs:** REST APIs ; optionally open for third-party integrations (e.g., Google Books API)

## 2.8 Fit with Project Goals and Team Skills

- Our stack uses modern, industry-standard tools that are widely supported.
- We want to gain experience in web development and have no prior experience with mentioned frameworks and the database.
- PostgreSQL gives us structured data handling, crucial for the book-tracking logic.
- Hosting with Vercel/Render ensures fast deployment and scalability with minimal ops overhead.

### 3. Initial Design

- We have prepared some rough sketches of our main pages in the project:



### 4. Development Setup

Our GitHub Repository Link:

[https://github.com/memoryVoid1/YZM\\_Software\\_Engineering\\_Project](https://github.com/memoryVoid1/YZM_Software_Engineering_Project)

Our Github Project Board Link:

<https://github.com/users/memoryVoid1/projects/2>