Bookshelf.init

Aidan Reese, Alex Barry, Brody Cyphers, Luca Hodge, Tyler Coil

Project Description

Bookshelf.init is the ultimate study resource website for students, enabling collaboration with others and easy access to quality resources to ace their classes.

The search page provides article and resource suggestions through keywords and filters selected by the user. Given these keywords, the site will display the top study results that match the search.

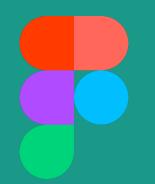
These resources will allow users to study more efficiently and access information to guide them.

Registered users are able to upload and view documents hosted by the website, and have a personalized profile page showing their uploaded documents and any others that they have liked.

The upload page allows users to select any file from their computer, add file tags to categorize their study guide, and submit it to the website for other users to view.







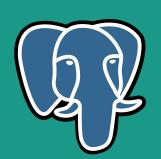














Softwares

Project Tracker - GitHub Project Boards (Agile Development) 3.5/5

VCS Repository - GitHub (Peer Reviewed Code) 3/5

Database - PostgreSQL 4/5

IDE - Visual Studio Code 5/5

UI Tools - HTML, EJS, CSS 2/5 Application Server - NodeJS, Docker 4/5

Deployment Environment - Azure 4/5

External APIs - UploadCare 2/5

Unused API - FireStore 1/5

Testing Tool - Mocha / Chai 2/5

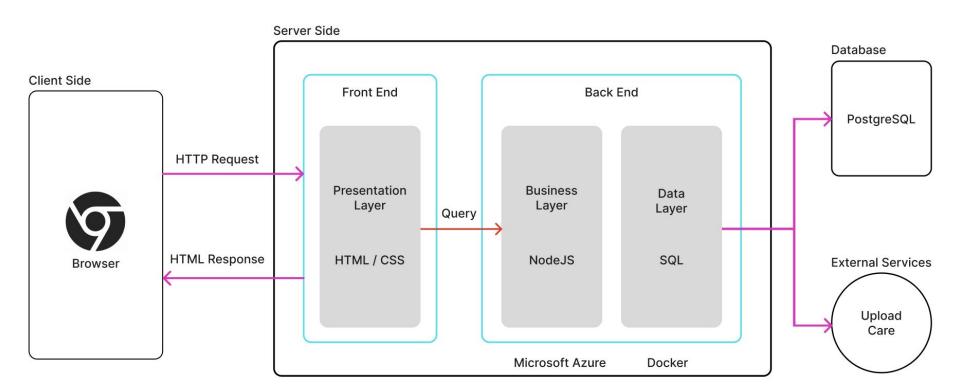
Framework - NodeJS 4/5

Architecture Diagram

Upload Care - Handles file uploading, processing, and delivery.

Docker - Operating system virtualization to package software into containers with all needed resources.

Microsoft Azure - Access, manage, and develop applications through remote data centers.



Three Layered Architecture

Presentation Layer -

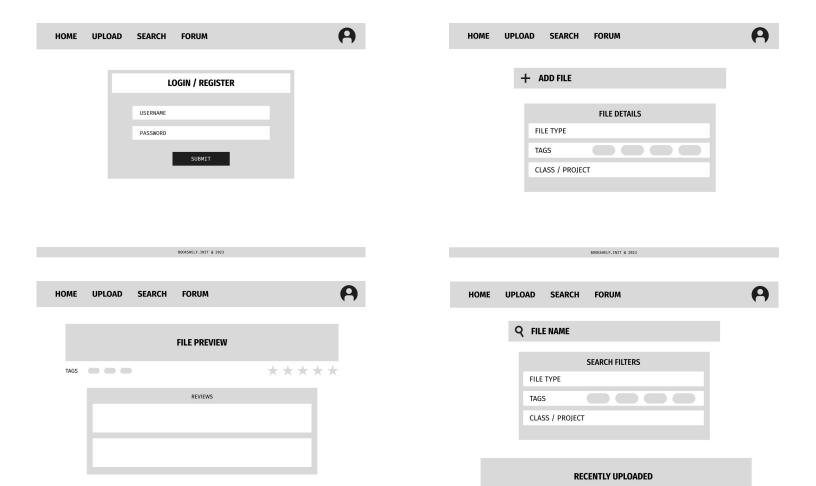
Where users interact with the application. Contains code which displays information to user.

Business Layer -

The bridge between data and presentation. All data passes through the business layer and is processed to add logic before being passed to the presentation layer.

Data Layer -

The set of code to manipulate the database: SQL statements, connection details, etc.



BOOKSHELF.INIT @ 2023

Challenges

What We Encountered

-Communication
The team was not always on the same page regarding features/goals

-Version Control

Managing current branches to reflect changes
others made and resolving conflicts

-Integration
Ensuring that different team member functionalities built off each other

-Changing Database Requirements
Database updates forced changes to be made to
existing features

-API Storage + pricing
Finding a free file hosting API that allowed us
sufficient storage to test and host website

Project Demo



Future Improvements

- Discover Page
- Comments and Forum
- Delete Existing Files
- Change Account Details
- Admin / Super User
- Link Documents to Related information
- Search and Filter Options

Questions?