

STUDY BUDDY

SYSTEM DESIGN

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SOFTWARE ARCHITECTURE DIAGRAM



FRONT-END: React

- The user interface. The user interacts with this to manipulate their data via the backend/server
- Users are able to login, start a timer, add a task to a list
- The React client makes requests via the **Axios** package to this server to perform all operations the user wants.

BACK-END: Express Server (Node)

- The Application Programming Interface (API)
- Processes the requests from the user, parses them for errors, makes sure they're authenticated
- Sensitive content is encrypted by the **Bcrypt** Package
- Uses **Mongoose** to manipulate the database

DATABASE: MongoDB

- Holds all data processed by the backend from the user
- This is where all CRUD operations are done

Routes/Task

- ♦ **Create a task**
- ♦ **Delete a task**
- ♦ **Update a task**
- ♦ **Update a task**
- ♦ **Output all tasks**

- ♦ **Task Item**

Routes/User

- ♦ **Create a new user account**
- ♦ **Login to an existing user account**

Models/Task

- ♦ **Creates the task with its respective properties in mongoDB**

Models/User

- ♦ **Creates the user in the database**
- ♦ **Encrypts the user's password before adding to the database**

- ♦ **User Item**

client/src/container/app

- ♦ **Routes url to particular components**

- ♦ **client/src/containers/authpage**
- ♦ **client/src/components/dashboard**

client/components/Timer		App
<ul style="list-style-type: none"> Starts the timer when the start button is clicked Stops the timer when the stop button is clicked Resets the timer back to the start time when the reset button is clicked Triggers a sound to notify the user when the time is up or when the time has started 		<ul style="list-style-type: none"> client/src/containers/app

Routes/List	
<ul style="list-style-type: none"> Create a list Get a list Delete a list Update a list title Add task(s) to a list 	

Models/List	
<ul style="list-style-type: none"> Sets the schema to define what a list is with its respective properties in MongoDB 	<ul style="list-style-type: none"> Routes/List Routes/Task

client/src/components/login/login	
<ul style="list-style-type: none"> Creates a login form for the user Posts the data inputted by the user to the back-end Processes the response from the back-end 	<ul style="list-style-type: none"> client/src/containers/app

client/src/components/register/register	
<ul style="list-style-type: none"> Creates a registration page for the user to create an account to use the application 	<ul style="list-style-type: none"> client/src/containers/app

client/src/components/SessionList/SessionList	
<ul style="list-style-type: none"> Display List view of tasks Allow user to manipulate progress of tasks 	<ul style="list-style-type: none"> client/src/containers/app

client/src/components/Task/Task	
<ul style="list-style-type: none"> Request an Update to a Task Allow the user to interact with the task 	<ul style="list-style-type: none"> client/src/containers/app

HOC/Auth client/src/components/login, client/src/containers/authpage	
<ul style="list-style-type: none"> Checks the clients cookies for the JWT token for authorization 	<ul style="list-style-type: none"> client/src/components/login client/src/containers/authpage

client/src/Containers/AuthPage/Authpage client/src/Containers/Login	
<ul style="list-style-type: none"> Displays a login form and verifies user input 	<ul style="list-style-type: none"> client/src/Containers/App/App

<div>client/src/Components/LogoutButton</div> <div>client/src/Components/Navbar/Navbar</div>	
<ul style="list-style-type: none">Allows users to logout from the application	<ul style="list-style-type: none">client/src/Components/Navbarclient/src/Components/Dashboard

<div>client/src/components/profilepage</div> <div>client/src/components/navbar</div>	
<ul style="list-style-type: none">Displays a users information and allows them to make changes	<ul style="list-style-type: none">client/src/components/navbar,

<div>client/src/components/dashboard</div> <div>client/src/components/timer, client/src/components/navbar, client/src/components/sessionlist,</div> <div>client/src/components/clearbutton, client/src/components/list</div>	
<ul style="list-style-type: none">The main app for the users, displays the timer, list of tasks, and navigation bar	<ul style="list-style-type: none">client/src/components/timerclient/src/components/navbarclient/src/components/sessionlistclient/src/components/clearbuttonclient/src/components/list