**Solo Project Brief**

Make a copy and rename “Full Name Solo Project Brief”

| **1. Identify your user(s)** | People trying to learn or improve JavaScript coding, and wish to discuss with and seek out Pair Programming partners in an all-in-one application |
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| **2. What is the problem you’re solving?** | A unified place to be able to discuss technical programming topics in a chatroom-like setting with others who are currently online and allow instant activation of Pair Programming sessions through invitations |
| **3. What is the solution?** | A main landing page with categories based on topic and experience level which will lead to a chatroom-like feature to allow for topic discussions and troubleshooting errors. This will include a GUI showing active users currently online and allow for selecting users in this GUI to initiate invitations to be sent in order to begin Pair Programming sessions. Since creating a functional, internal IDE would be difficult to do in such a short time, I intend to accomplish this by redirecting invitor/invitee to a private CSBin room. The application will not require passwords to login or use the app and online activity will instead be tracked using session cookies. The rooms will be assigned by concatenating their SSID or usernames together into a unique string that can be used to ensure it is a private CSBin room that is not being used. I would also like to have an optional login function to allow users to save their past partners and allow them to save prior coding sessions as text documents as well as a way to save partners they have worked with well in order to provide them with an alert when that user comes online. |
| **4. What is the MVP scope? (core features you must get working)** | The MVP scope would be the main chatroom-like feature to allow for discussion based on the topic and experience level of their choosing. This functionality must at least be able to send/receive/display messages sent/received from users |
| **5. What are the tough technical challenges involved with solving this problem?** | Maintaining and updating global state in real time using React/Redux hooks as well as getting the back-end working to allow for invitations to initiate the redirect request to CSBin rooms. I intend to do this by verifying SSID session cookies of invitor/invitee to ensure they are both online and concatenate either these values or their usernames into unique strings to ensure it is an empty CSBin room to ensure it does not disturb others already on the platform. I also plan to try using the socket.io from Express to allow for real-time message updates, and I anticipate this will be a bit of a challenge as we have not used this yet and I will be learning to use this for the first time based on what I’ve read and learned from Expressjs documentation |
| **6. What are the stretch goals?** | To get the GUI working to display current active users accurately as they “login”/”logout” (even though I am not using a traditional username/password system). I can also foresee the redirect functionality may be difficult as it will require several steps to ensure an invitation is sent beforehand and a confirmation is required to complete the redirect. I also want to eventually have a true user database which will allow them to save past coding sessions as txt documents and past partners who they have worked well with and provide them with an alert of some sort when they are online. I can also foresee having functionality partitioned into separate rooms based on category and experience may be difficult as we have not gone into multi-page applications or states between web pages so I will be attempting this for the first time. |