BAD EXAMPLES THAT WE SHOULD AVOID: IRCC and CRA login pages.  
GOOD EXAMPLES: Udacity, Coursera, and Facebook.  
  
SMART:

After doing an extensive amount of research, we have found the best UX design for login and sign up pages. It may seem trivial, but a lot of websites do it wrong and make it hard to navigate between login and signup pages.

\*\* 1) User Experience (UX) Considerations\*\*  
Preventing Choice Overload: The research indicated that presenting users with too many options or forms simultaneously can lead to choice overload, negatively affecting decision-making. Simplifying the user interface and minimizing cognitive load by carefully considering the layout and options available can mitigate this effect. Especially the IRCC website, the amount of login options actually make it hard to know which login option is best. You can sign in using partners, like banks. But then sometimes it doesn't work. To find the distinction between login page and signup page is difficult

Action buttons must be clear: Users showed a preference for interfaces where the distinction between logging in and signing up is unmistakably clear. Confusion between these actions can significantly impact the user's ability to complete their desired task, affecting overall satisfaction. A bad example is the IRCC website as it makes it hard to even find the signup button

\*\* 2) Design Pattern Evaluation\*\*

Multi-Page Applications: We will choose an MPA approach for the login and sign-up page, where login and signup pages are separate, offer clearer segmentation of user actions, and can potentially improve site reliability and load times for these critical pages. This pattern is straightforward but may lead to higher bounce rates if users are discouraged by the additional navigation required. So in our case, we try to minimize the number of additional navigation. A lot of sites such as the CRA website or IRCC website, make it extremely hard to log in or sign up so we want to minimize that to ensure that users can quickly sign in and sign up rather than go through a whole process and give up. Sign-up and Login buttons should be easily found, rather than having to go through multiple navigations just to find each one.