

Our project idea is a website meant to introduce and teach students about coding and gain their interest in it. Coding is a very desirable skill as it is used in many fields of STEM such as programming a robot, creating a website for a company, designing security defenses, and many other applications. However, the current knowledge of coding is not consistent among people. That is why we have decided to target elementary and middle school students as the main users of our website. This is to get them curious about STEM. Students are not typically interested in this topic because they find it daunting to learn the different symbols and structures that come with learning to code. This project will introduce various problems that grab users' attention and lead them to a career.

Our project is meant to accomplish all of these tasks with new and unique ideas that might help students expand their knowledge on the topic. The objective of our project is to create a functioning website with a login form, code submissions, code running, and code output returning. We will research these methods by creating multiple smaller applications to gain the knowledge needed to fulfill the objectives. Then, we will combine this knowledge to create the final product. Our current knowledge gap between group members is moderate. Both group members have intermediate experience on the topic of coding. One of the members in the group is relatively new to coding in HTML. This will make it easier to explain web-development concepts. In addition, our website will not be collecting any information other than, emails, usernames, and passwords. This is different from other websites that collect information for ads, which our website will not have. Other websites can teach students to code for free, but they also tend to collect information. For example, websites use cookies that stay until users close their browser. These websites and companies often use these cookies to adjust advertisements to best suit their users. We will only use cookies to save students' login sessions, preventing them from having to log in every time they close the website. We will also not have any advertisements. We hope to increase both members' knowledge of coding and creating a proper website through this project. The first coding language we will focus on is Python, a very common coding language used in many different fields to do various tasks. We also hope to build on this and introduce new languages in the future as we continue to build on this project. This entire project reflects what we have learned from this academy because we have to ensure the security of our website and the information that we collect. We have learned much about cybersecurity and will apply it to our website. For example, we may create expirations for sessions and hash passwords to prevent leaks.

Our end goal with this project is to make a lasting impact on the various fields that encompass coding and the students. We will give students the knowledge to learn a new skill, which is typically not taught, that is sought by most employers, and the opportunity to develop an interest in the field. Our website will increase the number of potential employees in the ever growing STEM field, providing them the knowledge to start a career in Information Technology, something that is continuously growing and surrounds our daily lives.