

## **Sample Project Proposal #1**

### **What is this? What is the goal?**

This assignment relates to your Python programming project proposal. Before you can code your projects using Python, you need to be able to understand what a project proposal entails. This way, when you submit your project proposals to me, I can easily approve or disapprove them with relative ease. You'll also begin to understand how to conduct research to fulfill a set of requirements for your future programming projects.

### **Requirements!**

For this assignment, the goal is to get you acclimated to conducting research. You will be required to research ATM machines. You will research an ATM machine from the ground up to gain knowledge of how ATMs operate. At all times, you will keep your research within a Computer Science and Software Engineering perspective. This is, so that you do not focus on topics related to an ATM that fall outside of the scope of the class or Computer Science.

### **What do I mean by this?**

For example, do not include research related to how an ATM is manufactured or the materials, such as plastics, that may be involved in making an actual physical ATM. Since this is a programming course, please only focus on the aspects of an ATM that are affected by Computer Science principles.

### **What does this mean for you as a beginner programming student?**

It means you have to really think deeply about how an ATM operates, but do so using a Computer Science perspective. That is, you will interpret everything an ATM does, using only Computer Science as the perspective. This means you do not research the impact of plastic on climate change because the ATM contains plastic, for example. Do not include anything on handicap access, class warfare, social justice, banking systems, climate change, or anything from social media. Conduct your own analysis of an ATM machine, and the software required to operate it.

### **Your research guidelines!**

- Research how an ATM functions from a Computer Science perspective.
- Find and create potential file names for the ATM.
- Create functions to encapsulate the ATM's behavior.
- You may reference microchips and other hardware slightly, only to support your science proposals.
- Do not submit any code yet. We will build the ATM from the ground up.
- Lastly, this is important: if you can think it, you can code it, and we can make it. Keep this perspective in mind, at all times, while you are in my class.

**Grading and submission details!**

- This assignment is worth 10 points as it is a non-coding assignment.
- Submit a document with your research.
- Make your research proposal no longer than two pages. Please use paragraphs. I do not want one giant wall of text. Follow all rules for proper grammar and punctuation.
- Do not write to me, like you write on social media to your friends, and peers.
- No memes allowed in your research prompt.