

Criterion A: Planning

Defining the problem

My client, K, is currently a senior in high school who balances schoolwork alongside extracurriculars and a part-time job. As a result, free time is a precious resource to them, and K wants to be as efficient as possible with their free time to ensure that they still have recreational time to themselves after completing whatever tasks they need to complete. However, as of late, K has been losing motivation and has become increasingly inclined to procrastinate. Thus, K approached me in need of a program that could keep track of their study time and keep them in check, ensuring that their tasks are completed efficiently and that they can stay motivated.

The proposed solution

I have devised a plan to create an application in Java called Study Timer V (STV). STV's purpose is to motivate users with an interval timer that provides structure to users' study sessions. The aim is to create a user experience that is motivating and to maintain focus by alternating between study times and breaks.

The rationale for the proposed solution

- Java is equipped with Java.Swing, a set of GUI (Graphical User Interface) functions and tools that would allow me to create a product with an interface for the users. This is necessary for the product as it requires a user input framework where users can press buttons or give inputs to answer questions.

- My client's workplace provides windows desktops for the students, meaning a Java program would be suitable for running on any of the devices.
- Java is free and open source, meaning K will not need to worry about monetary costs regarding the program.

Success Criteria

- Implement a timer that allows the user to set the length of study sessions and break sessions, such as a 25 minute study session and a 5 minute break via a user input.
- Disallow inputs such as Strings for the timer durations
- Provide a countdown display should be on screen that displays the remaining time until the study session is over or until the break is over.
- Provide an emergency override button to pause the session when the user needs to address interruptions.
- Make sure the program only pauses when in motion
- Make sure the program only plays when not in motion
- Provide insights on the user's study progression such as the total number of minutes studied during that session.
- Provide insights on the user's study progression such as the total number of minutes rested during that session.

Word count: 411