Criterion A - Planning

Problem

My client is one of my parents, a professor at a university. She wants a program that gives students access to assignments that they need for their year. The students use public access computers in the classroom as most don't have their own laptops, meaning the files have to be stored publicly (Appendix; First Client Interview). Thus, the final program must have an encryption and decryption system so that other users can't read the test files if they find them on the computers.

Solution

The software that I propose to solve the client's problem will encrypt and decrypt the tests, as requested, allowing the students to access them when they should, disallowing unauthorized access by those other than the intended users, and sort the tests by who should access them. The software will be user-friendly, without needing any programming experience to work with.

Rationale

I will be making the program in Java for several reasons. Java is platform-independent, meaning that it will run on any machine regardless of the operating system. Since this is a program made for a school, it is highly unlikely that every student will be using the same type of device or operating system, while everyone still needs access to it. Java is an OOP, and I need to use an OOP because inheritance is a vital feature in my program.

Success Criteria

The software will be successful if…

- *The program allows the persistent storage of text documents (assignments) across instances.*
- *The program has a login for users so that only authorized users can access the assignments.*
- *The program has an administrator access portal that allows the modification and creation of standard user accounts.*
- *The administrator access portal can view/edit/create/delete assignments.*
- *The program has a way of encrypting text documents so that others cannot understand the files even if they find them in the system.*
- *The program will also be able to decrypt the text documents so that when the students log in they can understand the files.*
- *The users will be able to log out of the program at any time, keeping their files encrypted and protected.*