1. Our group selected the quiz option for our project. Since all the user communication was done through a terminal, we optimized our system around receiving input from the terminal and performing actions based on that.

The first step is to welcome the user into the program. Once done, they can either select to login to an existing account or create a new account. If the user chooses to create a new account, they can either create a teacher or student account by simply entering their desired username and password. If their username is already taken, the program will prompt them to enter a different username. Once an account has been created, the user can login with that account and gain access to the main program.

The access gained depends on whether the user logged in with a teacher or student account. As a student, the user can either edit their account (which includes deleting the account), or they can select a course to work in. From there, the student can choose which quiz they want to work with, and from there they can either view their score if one was given by a teacher, or take the quiz if they haven’t before.

On the other hand, as a teacher the user has 4 options. They can edit their account (the same actions as a student account), create a course, edit a course, or view a specific student’s data.

If the teacher selects to create a course, they will be prompted with a name for the course. Once entered, the course will be created.

If the teacher decides to view a student, they will be prompted to select a specific student and from there all the student’s scores on quizzes will be shown.

Finally, if the teacher decides to edit a course, they can either create a quiz in the course or view an already existing quiz. If they choose to create a quiz, they can do so through either a file input or through the terminal. If they choose to input the quiz through a file, they will be prompted for the file name, include file format and the quiz will be created off of that. However, if the file is non-existent, can’t be accessed, or is in the wrong format the program will tell the user the file couldn’t be read. If the quiz is successfully created, the program will print a success message.

If the teacher decides to create a quiz through the terminal, they will be asked to enter the name of the quiz, followed by questions in a certain format.

If the teacher selects to view a quiz, they will have to enter the name of the quiz they are trying to view. From here, they can delete the quiz, edit the quiz, or view scores. If they choose to edit the quiz further, they can add questions, edit questions, or edit the quiz name.