

The design paradigm we chose for our project 3 is Component-level design. Component-level design is a part of the architectural outline of the system where the interface, algorithms, data structures, and communication methods are defined. The components are more of the broken down, simple implementations of the project. Being able to break down the task so that each method is building on top of the simple methods created. Usually the components are made to be used multiple times throughout the project since they tend to each have one primary focus. You can have components that are more complex and the project progresses but the focus of using component-level design is to be able to start small and grow as the components grow.

In our project 3 we worked on making two mini games: tic tac toe and hangman. For the tic tac toe game, the first component that is implemented is the layout of the board. Following, a player 1 and player 2 method that uses the board as reference and allows players to place their piece accordingly. After this, methods such as winning condition and run game are all used in the main.cpp. In hangman, the components start off as the set up and basics for the game such as picking a random word and placing the dashed lines for how many letters. After, the program takes users input, the word it has saved and has to include whether the player guessed a letter correctly or not. Finally, the program places a part of the body or the correct letter based on the user input and the initial word the program generated.