**Week 4 Journal**

**Tammy Hartline**

**CS-230**

**03/25/2023**

I have found that I still do not understand most of what was learned this week. But I am going to do my best to meet the rubric based on reading and research. A client server pattern is a very common architecture used to meet software requirements and efficiently solve development problems. This pattern allows web-based game apps to run on multiple operating systems. This is accomplished by separating game logic and the client-side user interface from the game data on the server side. This process allows the game to be accessed from different browsers, device types, and gaming consoles that operate on different platforms. There are many other features that can be offered and implemented through use of a client-server pattern, such as user chat options and notifications.

The server-side of an application is what provides communication to the client side. This can be accomplished using a REST API. Using a REST API allows requests to be sent to the server and to receive responses in a well-defined and consistent format. They also allow the server to handle multiple client requests simultaneously, which creates real-time interactions and updates to the state of the application.

The client-side development of an application must take compatibility of multiple environments into consideration and the different platforms potential users will use to access the application. Some of the considerations that must be accounted for include screen-size, resolution, input method (via touchscreen or keyboard for example.) This part is where pseudocode would likely become most useful, to help developers understand how they want the program to be accessed, such as whether they will require registration, and unique identities and keys for user data to be access previous states of their game or application.

For the game room application, if a developer wanted to include gaming console platforms, they would need to research their operating systems and platforms, to ensure that they are compatible. I am not certain if that can be done with a REST API, but there is surely some type of platform or library already in existence, that allows developers to incorporate a library that will a web-based application to work properly with PC’s, Androids, IOS, and gaming consoles using integration of different coding languages.