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SNHU

CS230

* **Client-Server Pattern: Discuss how the client-server pattern can be used to satisfy software requirements and efficiently solve a problem**. Specifically, the web-based game application must be able to be run on multiple operating platforms.
  + The Client-Server Pattern for web-based game applications can be a great choice because the application must run on multiple operating platforms. Ensure communication is efficient between different components, allowing for scalability and flexibility.
* **Server Side**: You have developed the application from the server side. **Discuss how the server side provides communication to the client side with REST API style**.
  + To start with, utilizing the REST API style is a smart move for the server side. It’s a standardized way of communicating with various clients. Making it easy for developers to interact with the server, RESTful APIs use standard HTTP methods. Developers will need to ensure that the API endpoints are well documented and support the functionalities for the game.
* **Client Side**: You wrote an application for multiple clients where the multiple environments can interact with the server. **Discuss what is required of the developers so that the application on all three clients is able to be used on the website**.
  + The specifications outlined in the API documentation must be adhered to by the developers. Requests and responses need to be handled appropriately, this ensures seamless communication with the server. Creating a responsive and user-friendly interface is what the developers need to focus on for the web-based game that runs on multiple clients. The application also needs to be optimized for different screen sizes and cross-browser compatibility.
* Consider what next steps would entail to develop for the client side of the game application. For instance:
  + How would you add more users to the database?
    - To add more users to the database, on the client side, developers would implement user registration and authentication mechanisms to secure access to the game.
  + What other features might you include in the game app?
    - Other features to consider would be player profiles, achievements, leaderboards and in-game chat to enhance the gaming experience. Online and local play can also be added to allow the user to determine if they would like to play with others or by themselves.
  + What if The Gaming Room asked you to host the application on a fourth and fifth client? For example, on Xbox and PS4.
    - Expanding to a fourth and fifth client for each platform would have its own set of development requirements. On the client side, the developers would tailor the game to include adapting controls for console gaming, optimizing performance, and meeting the specific guidelines for each platform’s development environment.

Overall, the ability to create users, play on multiple platforms, and provide a fun and interactive experience for the user are key elements that will allow for more customers, keep customers, and share the game amongst other potential customers. Creating clients that can adhere to the requirements of each platform to create stability and performance regardless is what the developers need to think about when they create the game.