Kendrick Free

CS-230

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1. **Operating Platform:** Recommend an appropriate operating (server) platform that will allow The Gaming Room to expand Draw It or Lose It to other computing environments.

There are two plausible choices for this, one being Windows and the other being Linux. Linux is free and open source which means the user is free to customize it however they please. Since this is free there is also no support for users who customize their own Operating system. This kind of operating system would require someone very well versed in its principles. On the other hand, the Windows OS is not free while coming with a plethora of support and tutorials. This operating system is much easier to use in comparison to Linux as Windows is simpler and more restricted in user customization. With both operating systems being on the table I would recommend Windows due to its simplicity even though there is a cost associated.

1. **Operating System Architectures:** Describe the details of the chosen operating system architectures.

The Windows OS is a simple kernel, hardware abstraction layer, drivers and a series of services which exist in kernel mode. In kernel mode, the code that is being executed has complete access to the computer’s hardware.

1. **Storage Management:** Identify an appropriate storage management system to be used with the recommended operating platform.

For storage management I would recommend Geforce Now. It is a service dedicated to gaming and operates on the following platforms:

* MacOS
* Windows OS
* Chrome OS
* Android
* IOS

The pro to using a service such as this is that it can be expanded very easily and quickly, for a cost of course.

1. **Memory Management:** Explain how the recommended operating platform uses memory management techniques for the Draw it or Lose it software.

The Windows OS uses physical and virtual memory with processes managed by necessity. These settings can be changed in the settings to choose what is prioritized. The processes are moved back and forth between the main memory and the storage device. However, in this case we are not concerned with the speed of the local storage devices as we are using a cloud service for the game.

1. **Distributed Systems and Networks:** Knowing that the client would like Draw It or Lose It to communicate between various platforms, explain how this may be accomplished with distributed software and the network that connects the devices. Consider the dependencies between the components within the distributed systems and networks (connectivity, outages, and so on).

The key factor for this gaming service would be internet connection. Since the game will be provided via cloud service it will require a stable internet connection to be playable. While hardware issues happen, if any noticeable performance issues are documented they can be resolved with the cloud service provider to determine the source of the problem. To put it simply, if the cloud service providers servers are still operating normally the game will be fully functional for users with an internet connection.

1. **Security:** Security is a must-have for the client. Explain how to protect user information on and between various platforms. Consider the user protection and security capabilities of the recommended operating platform.

The Windows OS has an integrated firewall that is very effective. If the user desires additional support other options are as follows:

* Antivirus software
* Anti-Malware/Anti Spyware

When the Windows OS is installed, the firewall is enabled by default so the user will not have to take any additional steps.

Works Cited

Mikben. (n.d.). *About memory management - win32 apps*. Win32 apps | Microsoft Docs. Retrieved December 13, 2021, from https://docs.microsoft.com/en-us/windows/win32/memory/about-memory-management.