**Module 1: Discussion**

Discuss the importance of an operating system as it relates to computer hardware and software. Provide at least one example of a service that operating systems provide. In response to your peers, provide at least one additional service example.  
  
Alejandro Ricciardi

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Hello everyone!

The operating system (OS) is the most important software running in a computer system. It acts as an intermediary between applications and the hardware, and it takes on the role of manager and worker. The OS manages the different hardware components such as the processor, memory, input/output devices, and storage devices, it also controls and distributes those hardware resources to applications and users. Thereby, it is responsible for handling resource requests, sharing policies, errors, and security. Additionally, as a worker, the OS performs tasks such as providing access to stored files and networking for applications.

The many tasks performed by the OS, as a manager or as a worker, are called services.

A service provided by the OS that is useful for applications is the I/O operation, it allows access to devices through driver software or/and the hardware abstraction layer (HAL), this means that the applications don't need to know how to control the devices, they just need to interface with the OS.

To summarize, an operating system is the most vital software running in a computer system, it controls and manages hardware, handles resource requests, sharing policies, errors, and security, and it also provides services as a worker. Therefore, the OS is the link between applications and the hardware, providing an environment where applications can be run efficiently and developed without the burden of understanding the intricacies of hardware operations.

References:

Stallings, W. (2018). Operating systems: Internals and design principles. Pearson.

GeeksforGeeks. (2023, May 12). What is an operating system?. https://www.geeksforgeeks.org/what-is-an-operating-system/Links to an external site.