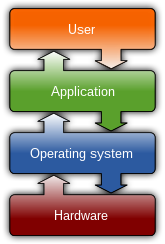
Report to the lecture 1

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I read the lecture material and watched the videos. Now I can answer the questions to consolidate the material:  
a) Які основні функції операційної системи? Чи немає між ними протиріч?



Basic functions of operating system are:

* Manages the processor
* Provides a way for the user to interact with the computer
* Manages the computer system`s hardware and peripheral devices
* Manages the memory and storage
* Provides a consistent means for software applications to work with the CPU

b) Наведіть кілька прикладів просторового і часового розподілу ресурсів комп'ютера. Від чого залежить вибір того чи іншого методу розподілу?

The OS must allocate resources efficiently. Resources are understood as processor time, disk space, means of access to external devices. The OS acts as a manager of these resources and provides them to applications on demand. Different programs or users use sharing resources in time in turn. First, the resource is used by some, and then others. For example, printer use sharing resources in time. In sharing resources in the space, instead of alternating work, each client receives some part of the resource. This can cause problems of equal access, security and more. For example, CPU, RAM use sharing resources in space.

c) У чому полягає основна відмінність багатозадачних пакетних систем від систем з розподілом часу? Як можна в рамках однієї системи об'єднати можливості обох зазначених систем?

A multitasking operating system allows you to run more than one program to run at the same time. This is achieved by dividing time, dividing what is available

Processor time between multiple processes, each of which is repeatedly interrupted by an operating system scheduling task. Multitasking can be described as advanced and collaborative operating types. Operating systems with time scheduling tasks for efficient use of the system and may include accounting software for allocating processor time, storage, printing, and other resources. To integrate systems, you need to: Equip with dedicated communication, connection, and synchronization features.

d) Чому більшість вбудованих систем розроблено як системи реального часу? Наведіть приклади вбудованих систем, для яких підтримка режиму реального часу не є обов'язковою.

Most embedded systems are designed to be real-time systems because many tasks must respond instantly to changes in input data. Embedded systems that do not require real-time support: memory management, I/O management, data security.