Name some responsibilities of an OS?

* Keep the user away from tampering with hardware or core software
* Hiding the complexities of hardware from the user.
* Managing between the hardware's resources which include the processors, memory, data storage and I/O devices.
* Handling "interrupts" generated by the I/O controllers. Sharing of I/O between many programs using the CPU.

What is the interrupt vector?

* Interrupt Vector is an array with addresses of the interrupt service routines

What is direct memory access?

* Direct memory access (DMA) is a feature of computer systems that allows certain hardware subsystems to access main system memory (random-access memory), independent of the central processing unit (CPU).

What does the mode bit do, and why?

* indikerer om vi er i user mode eller kernel mode, ikke godt at user har adgang til alt muligt shit

What is a system calls?

* System calls provide an interface to the services made available by an operating system. System calls are generally available as functions written in C and C++, though some low-level tasks (fx where hardware must be accessed directly) may have to be written using assembly-language instructions.  
  (The functions that the OP provides for us)

What groups of system calls are there?

* + **Process control** - These system calls deal with processes such as process creation, process termination etc.
  + **File Management** - These system calls are responsible for file manipulation such as creating a file, reading a file, writing into a file etc.
  + **Device Management** - These system calls are responsible for device manipulation such as reading from device buffers, writing into device buffers etc.
  + **Information Maintenance** - These system calls handle information and its transfer between the operating system and the user program.
  + **Communication** - These system calls are useful for interprocess communication. They also deal with creating and deleting a communication connection.
  + **Protection**

Why would you use a system call API?

* En API specificere et sæt af funktioner som er tilgængelig for en applikationsudvikler, dette inkludere de parameter der skal gives til hver funktion og hvilke returning værdier som programmøren kan forvente.
* Cross architecture compatible.

What ways are there to pass parameters to the OS?

* registre
* adressen på en blok bliver lagt i et register
* push/pop på stack

What can an operating system be structured (architecture wise)

* layered, monolithic struktur og microkernel.