- The OS allocates the resources.
- It is a form of abstraction for the application and the hardware.
- Resource is a component of limited availability which is necessary to complete a task.
- A process is an active program, as only one program can be executed on the CPU at any given time.
- A deadlock is when two or more processes are waiting for one another. None are moving forward as they are waiting for each other
- Buffer is an area of memory where data is stored. It is volatile.
- Cache is very fast memory that stores data. Used for faster access.
- Buffer and cache both store data but the data in the buffer is the only place where this data can be found, whereas cache data may also be found elsewhere.
- Kernel the core of the OS gets started with the OS.
- Interrupt, a change in flow of the system. These have to be dealt with with handlers.

Multiprocessing
- Multiple processors have multiple processors or one processor with multiple cores.
- These need to be managed by the OS by using overhead(us elf the resourcse.
- Assymetric multiprocessor- one processor is the master and the others are the slaves.
- Symmetric, all processors are like peers.
- Clustered systems are separate entities they have their own clocks etc by they share a network.
- multiprogramming has multiple processes.
- Timesharing and multitask. The OS will help by scheduling the active programs by allocating a time slot for each program.

Components
- Process manager
- Memory manager
- Storage manger
- Networking
- Protection and security
- User interface- how to interact with the system.