

Software: Operating Systems

A	Roles of an operating system	
1	Memory management	Allocation of RAM to all running programs using <i>paging</i> and <i>segmentation</i> .
2	Multi-tasking	Running several different programs at the same time by switching between them very quickly (<i>scheduling</i>).
3	User management	Allowing for different users to have different accounts, security and permissions
4	Peripheral management	Allowing for applications to use peripherals via drivers and dealing with interrupts
5	Utility management	Running and maintaining utilities
6	CPU management	Running applications, executing and cancelling processes
7	User Interface/ Shell	The means of communication between the user and the OS
8	File management	Providing a file system for storage and retrieval of files

B	Key vocab	
Paging		Memory management technique which involves splitting RAM up into equal sized pages, and indexing them
Segmentation		Memory management technique which involves programs into blocks of memory which fit the gaps in the RAM
Scheduling		The process of arranging and controlling various processes when multi-tasking
Multi-user		When more than one user has access to the same memory, storage or CPU time
Kernel		The part of the operating system which interacts with hardware on one side and applications on the other
Driver		Software which interfaces between applications and peripherals
Buffer		A temporary area of computer memory used to store data for running processes.
Interrupt		A signal to the OS to stop it running its current program, and instead run a particular driver
GUI		Graphical User Interface (icons)
CLI		Command Line Interface
VUI		Voice User Interface

