6.1.1 Identify the resources that need to be managed within a computer system.

Resource	Size information	Explanation
Primary memory	4-8 GigaBytes	Primary memory holds the data for the processes that a computer is currently running. Instructions and data will need to be transferred to primary memory when processes are being executed.
Secondary storage	Hundreds of gigabytes	The permanent storage of all programs and data on a system must be managed so that it can be accessed when required.
Processor speed	Gigahertz	There are many more programs running on most computers than there are processors so the processing speed must be shared out between the programs by time slicing.
Bandwidth	Gb/sec	The rate at which data can be transferred around the parts of a computer system is crucial to the computer's performance. If the whole bandwidth for one transfer mechanism is taken up by one task no other task that needs to use the same transfer mechanism can progress.
Screen resolution	1920x1080 pixels	The more pixels the sharper the images will be. The computer and graphics card running the screen display must be able to cope with the bandwidth (update rate x number of pixels x storage per pixel).
Disk storage	Hundreds of gigabytes	The permanent storage of all programs and data on a system must be managed so that it can be accessed when required.
Sound processor		Communication between processors needs to be managed
Graphics processor		Communication between processors needs to be managed
Cache	L1 – 4 x 32 kB of instructions plus 4x 32 kB of data (256KB total) L2 – 1 Mbytes L3 – 6 MBytes	Temporary storage of the instructions and data currently being accessed by the CPU
Network connectivity		Communication between network card and computer needs to be managed.