1.2 Memory

Keywords & Definitions

RAM - Random Access Memory, main memory of a computer.

ROM - Read Only Memory. Memory that can be read but not written to.

Virtual Memory - part of the hard drive that is used as a back up for RAM

Flash Memory - Solid state, non-volatile secondary storage

Volatile - Data is lost when the device is switched off/loses power

Non-Volatile - Data is retained when the device is switched off/loses power

Secondary Storage → RAM → Cache Memory → CPU

RAM VS ROM (Primary Storage)

ROM
- Read Only Memory
- Computing bootup instructions (BIOS)
- Non-volatile memory (data is retained when switched off)
- Read Only - the contents are written to it permanently

RAM
- Random Access Memory
- Running programs
- Data currently being used
- Volatile memory (data is lost when switched off)
- Read & write to it

Flash Memory
- Non-volatile
- Read and write to it
- Secondary Storage
- solid state - no moving parts

RAM and performance
- If your computer has a small amount of RAM, you can run less programs and will need to use virtual memory, this is slower than using RAM and your computers performance will be slower
- By increasing the amount of RAM a computer will be able to store more instructions and data in RAM and therefore will need to use less virtual memory, this will increase the performance of the computer.