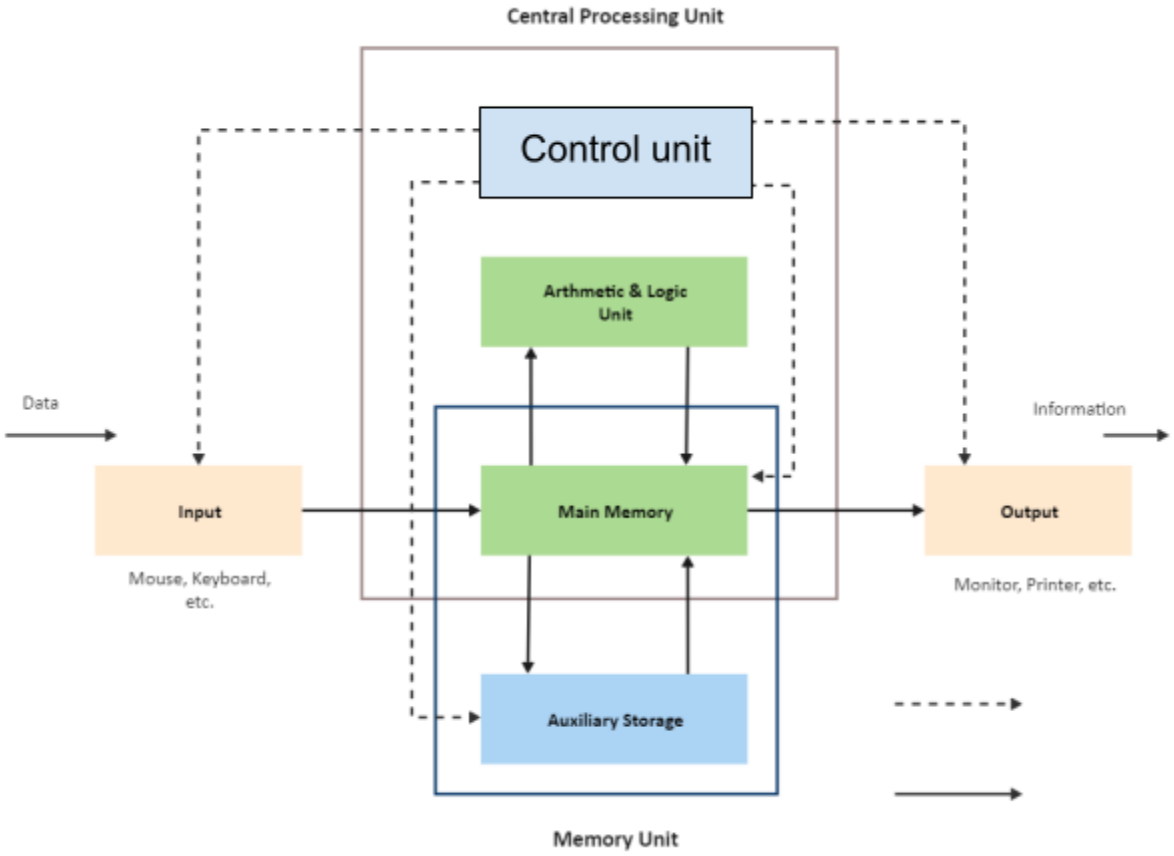
1. Create a mind map with block diagrams/ stick figures as to how the components of computer architecture work in coordination



The **CPU** (central processing unit) is the brain of the computer. It is responsible for executing instructions and performing calculations.

The **memory** stores data and instructions that are being used by the CPU.

The **input devices** allow the user to interact with the computer, such as the keyboard, mouse, and microphone.

The **output devices** display information to the user, such as the monitor, printer, and speakers.

The **storage devices** store data for long-term use, such as hard drives, SSDs, and flash drives.

These components work together in coordination to allow the computer to function. For example, when the user types a letter on the keyboard, the input device sends the letter to the CPU. The CPU then stores the letter in memory and executes the instructions to display the letter on the monitor.

The components of computer architecture are constantly working together to keep the computer running smoothly. The more powerful the components, the faster the computer will be able to perform tasks.

1. Simulation of a processor using registers- Play the program counter
   The instructions given to the student playing the program counter.

Instruction Decoding Key (Memory contents : X Y Z) (e.g. 426)

X	Interpretation
1	Copy Y into register A
2	Copy register A to Y
3	Add the contents of register Y to register A
4	Place Z in register Y
5	Subtract Z from register Y
6	if Y=0 place Z in program counter
7	stop !

Y	Interpretation
1	Register A
2	Register B
3	Register C
4	Input
5	Output
6	Program Counter

(so 426 means "Place 6 into register B)

1. Understand the memory contents are XYZ
2. Following the given example, interpret the following
   1. 533
   2. 601
   3. 170
   4. 23
   5. 32

1. Subtract 3 from register c
2. If Y= 0 place A in program counter
3. Error
4. Copy register A to C
5. Add the contents of register B to register A

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