Tutorial 04

(01) What is the purpose of general-purpose registers in computer architecture, and they typically used?

* These registers are used to store operands and intermediate results during arithmatic and logical operations.

(02) How does the program counter register contribute to the excution of a program in a CPU?

* The program counter (PC) is a register in the CPU that stores the address of the next instruction to be executed. When the cpu fetches an instruction from memory, it first loads the address of the instruction from memory and execute it.

(03) What role does the status register play in the CPU, and what types of information does it typically contain?

* The status register lets an instruction take action contingent on the outcome of a previous instruction. It contains information about the state of the processor

(04) Why are registers considered the fastest form of memory in a computer and how does their speed impact overall system performance?

* Because CPU directly accesses the data stored in registers. The instructions stored in register can be executed more quickly than instructions stored in memory. So this can result faster program execution times and improve dl system performance.