

*****Definition of Computer Architecture*****

Computer architecture is a specification describing how hardware and software technologies interact to create a computer platform or system. When we think of the word architecture, we think of building a house or a building. Keeping that same principle in mind, computer architecture involves building a computer and all that goes into a computer system.

Computer architecture is the organisation of the components which make up a computer system and the meaning of the operations which guide its function. It defines what is seen on the machine interface, which is targeted by programming languages and their compilers.

Computer architecture is a specification detailing how a set of software and hardware technology standards interact to form a computer system or platform. In short, computer architecture refers to how a computer system is designed and what technologies it is compatible with.

The Three Categories of Computer Architecture

1. **System design** – This includes all the hardware parts, such as CPU, data processors, multiprocessors, memory controllers and direct memory access. This part is the actual computer system.
2. **Instruction set architecture** – The includes the CPU's functions and capabilities, the CPU's programming language, data formats, processor register types and instructions used by computer programmers. This part is the software that makes it runs, such as Windows or Photoshop or similar programs.
3. **Micro architecture** – This defines the data processing and storage element or data paths and how they should be implemented into the instruction set architecture. These might include DVD storage devices or similar devices.

*****Definition of Computer Organization*****

Computer Organization comes after the decision of Computer Architecture first. Computer Organization is how operational attributes are linked together and contribute to realizing the architectural specification. Computer Organization deals with a structural relationship. The implementation of the architecture is called organization.

Computer Organization consists of physical units like circuit designs, peripherals, and adders. Computer Organization handles the segments of the network in a system. Computer Organization deals with a structural relationship.

The computer organization is concerned with the structure and behaviour of digital computers. The main objective of this subject to understand the overall basic computer

hardware structure, including the peripheral devices.