**The Main Parts of a Computer. Generations of Computers. Artificial Intelligence**

A computer is a complex machine that is capable of performing huge computations at an extraordinary speed. Its processing power is often compared to that of human brain. Although human intellect is the undoubted winner in this competition, the capabilities of a computer cannot be underestimated. This complex machine influenced from the design of a human brain, mainly consists of a processing unit, an arithmetic/logic unit, computer storage, and input/output devices along with its peripherals. All the parts make the whole system.

CPU, also known as the computer processor, is an electronic circuit that executes computer programs. The primary responsibility of a computer processor is to execute a sequential set of instructions that constitute a program. A computer motherboard consists of sockets in which microprocessors are installed, memory slots, a chipset that acts as an interface between the CPU bus and the peripheral buses, non-volatile memory chips housing the system's firmware and a clock generator, which helps in the synchronization of various system components. A hard disk is an electromagnetically charged surface or a set of disks that record data in concentric circles known as tracks. It is a non-volatile storage device that stores digitally encoded data. Computer Memory refers to those components of a computer, which retain digital data. It forms the core of a computer and makes up the basic computer model in collaboration with the CPU. Monitor, or a visual display unit, is electrical equipment that displays images generated by the video output device of a computer. A keyboard is regarded as an input device for a computer. A computer mouse is a pointing device that detects and translates the motion of your hand into signals that a computer can recognize and respond to.

The history of computer development is often described as the development of different generations of computing devices. Each of the six generations of computers is characterized by a major technological development that fundamentally changed the way computers operate, resulting in smaller, cheaper, more powerful and more efficient and reliable computing devices. As a result of the miniaturization, speed, power and memory of computers have proportionally increased. New discoveries are constantly being developed that affect the way we live, work and play.

The first computers used vacuum tubes and were often enormous, taking up entire rooms. Then, transistors replaced vacuum tubes and ushered the second generation of computers. The development of the integrated circuit was the hallmark of the third generation of computers. The microprocessor brought the fourth generation of computers, as thousands of integrated circuits were built onto a single silicon chip. Fifth generation computing devices, based on artificial intelligence, are still in development, though there are some applications, such as voice recognition, that are being used today. Sixth Generation of computers is different from other generation computers in terms of size, speed and tasks performed. These computers are called intelligent computers based on artificial intelligence or artificial brains.

Artificial Intelligence is the simulation of natural intelligence in machines that are programmed to learn and mimic the actions of humans. These machines are able to learn with experience and perform human-like tasks. We can base the human-likeness of an AI entity with the Turing Test, Cognitive Modeling Approach, Law of Thought Approach, Rational Agent Approach.

There are 3 Types of Artificial Intelligence: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI), Artificial Super Intelligence (ASI). Extensive research in Artificial Intelligence also divides it into two more ategories, namely Strong Artificial Intelligence and Weak Artificial Intelligence.

To understand how Artificial Intelligence actually works, one needs to deep dive into the various sub domains of Artificial Intelligence and understand how those domains could be applied into the various fields of the industry.