APPLICATION OF COMPUTER IN ECONOMICS

TOPIC- INTRODUCTION TO COMPUTER

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What is computer?

- A computer is an electronic device that can store, manipulate, and process data according to a set of instructions.

- In the modern world, computers have become an integral part of our daily lives, revolutionizing the way we work, communicate, and entertain ourselves.

- From desktops to laptops, tablets to smartphones, computers come in various forms, yet many people are still unfamiliar with their inner workings and potential.

Different Definitions of a Computer

- **Electronic device:** A computer in generally termed as an electronic device that transmits data using electronic facilities and software programs

- **Data processor:** The computer processes data using arithmetic, logical and input/output operations

- **Information machine:** By processing multiple algorithms and computations, a computer gets up a meaningful definition to what we have searched

- **Digital device:** A computer manipulates, stores, and retrieves data represented in binary form to present it can understanding manner for humans

What are the Characteristics / features of Computer?
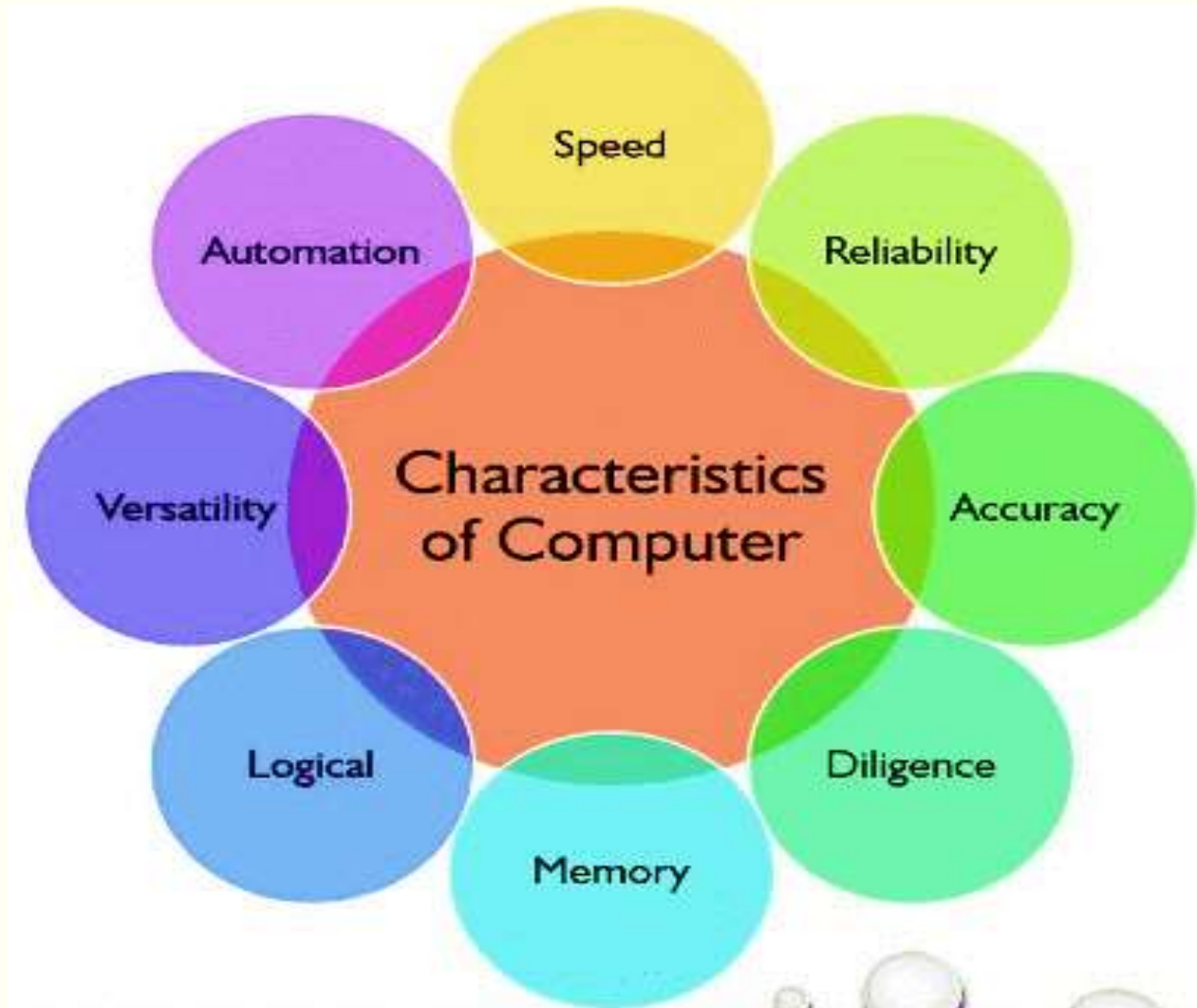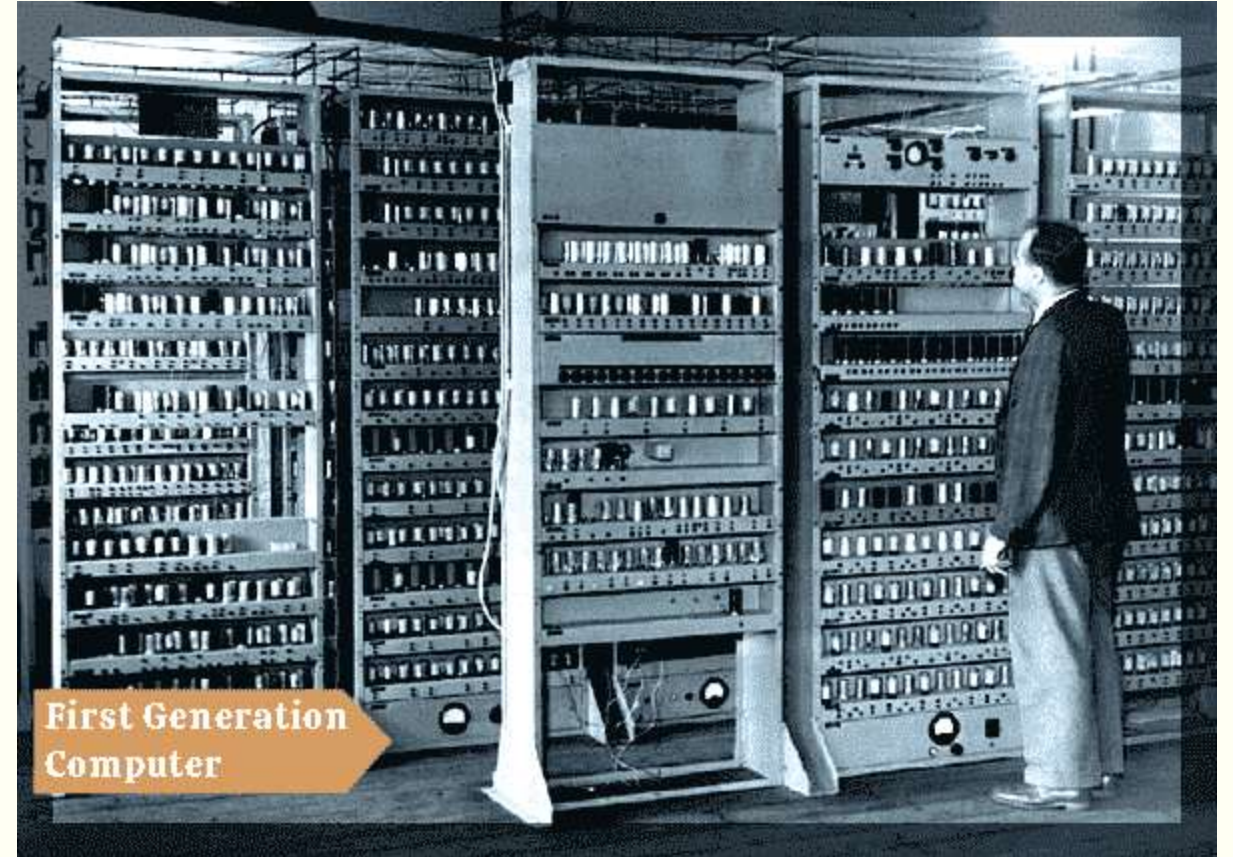
Different Generations of Computer:
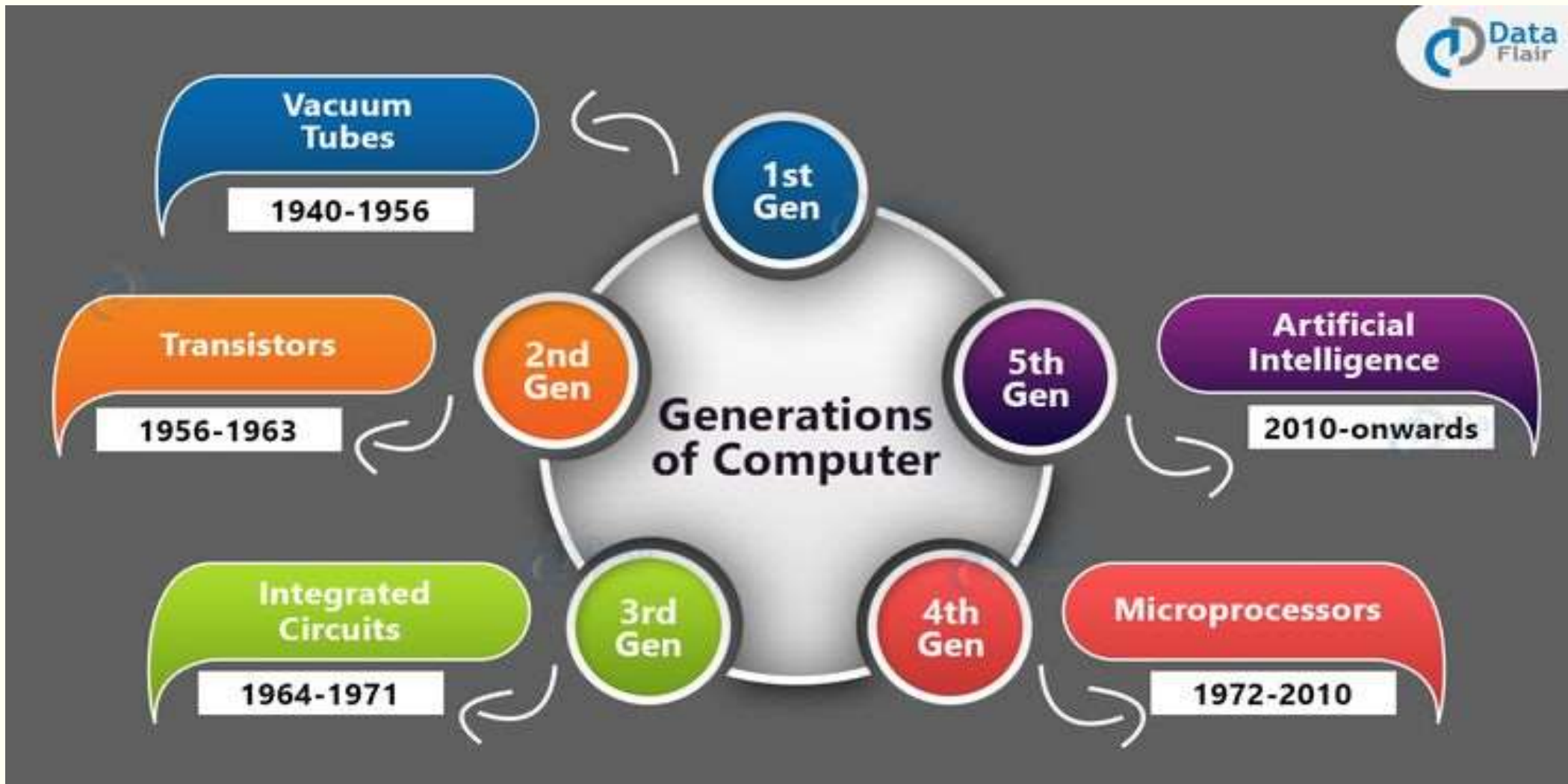
The First Generation Computers (1940s – 1950s):

❑ The main electronic component used in the computers of the 1940s to 1950s era were vacuum tubes and the main memory storing units were magnetic tapes and magnetic drums.

❑ The machine language was used as the programming language.

❑ The size of the computer are to be very large which could take up entire rooms and the speed was very slow.

❑ The only input/output devices were paper tape and punched cards.

❑ Around 100 different vacuum tubes were used in order to produce the computers.

❑ **Examples are UNIVAC1, ENIAC, IBM 701 and IBM 650, etc.**

First Generation Computer

The Second Generation of Computers- (1950s-1960s)

❑ The main electronic component used in the computers of the 1950s to 1960s era were transistors.

❑ And the main memory storing units were magnetic tape or disk and magnetic core. The assembly language was used as the programming language.

❑ And the size of the computer were smaller as compared to those of the first generation and they used to consume low power and generate less heat.

❑ There was an improvement in speed. The input/output devices were magnetic tape and punched cards.

❑ Examples are IBM 1401, IBM 7094 AND IBM 7090, UNIVAC 1107, and so on.

Second Generation Computer by IBM

The Third Generation of Computers- (1960s-1970s)

❑ The main electronic components used in this computers were integrated circuits ICs. And the memory storing units were the magnetic disk or take and a large magnetic core.

❑ High-level languages such as BASIC, COBOL, Pascal were used as the programming language.

❑ The size of the computer were smaller and efficient and the computers were called minicomputers.

❑ There was an improvement in reliability and speed as compared to the second generation of computers.

❑ The input/output devices were keyboards, magnetic tape monitor, printer, etc.

❑ Examples are IBM 370, IBM 360, UNIVAC 1108 and so on.

The Fourth Generation of Computers- (1970s-1980s)

❑ The main electronic components used in the fourth generation of computers are microprocessors and very large scale integration (VLSI).

❑ Semiconductor memory storage units such as RAM, ROM, etc. were introduced.

❑ **RAM (random-access memory)** - Temporarily stores the programs and data and the contents are lost when the computer is shut down.

❑ **ROM (read-only memory)** - Permanently stores the data and programs and the contents are retained even after shutting down the computer.

❑ High-level languages such as C#, JAVA, Python, JavaScript are used as programming languages.

❑ The size of the computers are smaller and the speed has improved.

❑ Examples are STAR 1000, APPLE II, IBM PC, and so on

The Fifth Generation of Computers- (1980s to Present)

❑ The main electronic components that are used in the present generation of computers is Artificial Intelligence which uses the parallel processing method and the Ultra-Large Scale Integration (ULSI).

❑ The fifth generation of computers understands the natural human language.

❑ The speed of the computers are really fast and the size are also small.

❑ The fifth-generation computers are portable and have a huge storage capacity.

❑ The input/output devices are keyboards, monitors, touchscreen pens, printers, light scanners, and so on.

❑ Examples are laptops, desktops, tablets, smartphones, etc.

Fifth Generation 1980- Present

The Sixth Generation of Computers- (2000s to future)

❑ The 6th generation of computers are generally considered to have begun around the 2000s and is expected to continue until around the 2030s.

❑ **Early 2000s:** The 6th generation of computers began with the introduction of 64-bit processors, advanced graphics processing units (GPUs), and the widespread adoption of the internet.

❑ **Mid-2000s:** The development of multi-core processors, solid-state drives (SSDs), and cloud computing marked significant advancements in computing power, storage, and accessibility.2010s: The rise of artificial intelligence (AI), machine learning (ML), and the Internet of Things (IoT) further transformed the computing landscape.

❑ 2020s: The ongoing development of quantum computing, edge computing, and extended reality (XR) technologies is expected to continue shaping the 6th generation of computers.

❑ 2030s: The 6th generation of computers is expected to evolve further with the integration of emerging technologies like nanotechnology, biotechnology, and cognitive computing.

Acer 6th Gen.
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THANK YOU...