BIOS (Basic Input/Output System):

- What it is: BIOS is the traditional firmware used in older computers to initialize hardware and boot the operating system.
- **How it works:** It performs a Power-On Self-Test (POST) to check hardware, loads the bootloader from the Master Boot Record (MBR), and starts the operating system.
- Interface: Typically text-based and navigable using a keyboard.
- **Compatibility:** Works with MBR (Master Boot Record) partitioning, which supports disks up to 2 TB and up to 4 primary partitions.
- Performance: Slower boot times and fewer advanced features.

UEFI (Unified Extensible Firmware Interface):

- What it is: UEFI is the modern replacement for BIOS, designed to support more advanced hardware and software capabilities.
- **How it works:** It performs hardware initialization and loads the operating system, but it uses a more modern method, often interacting with GPT (GUID Partition Table) disks.
- Interface: More user-friendly, often graphical, and can be navigated using a mouse or keyboard.
- **Compatibility:** Supports GPT partitioning, which allows disks larger than 2 TB and up to 128 primary partitions.
- **Performance:** Faster boot times and support for features like Secure Boot to prevent unauthorized OS booting.