

Operating System:

An operating system (OS) is software which manages basic functions of a computer system. Examples, Windows, Mac OS, Linux, Android and Unix.

Functions:

1. Managing the human-computer interface
2. Multitasking
3. Multiprogramming
4. Memory Management
5. Error handling
6. Loading and running software
7. Managing user accounts

High-level and Low-level Languages:

Programmer uses many different languages to communicate with computers. Computers can only understand their own language, called Machine code.

Computer program can be written in high and low level languages, depending on the task and hardware being used.

High Level Language -

1. Programmer just focus on the problem being solved.
2. Does not depend on particular computer or microchip.
3. It is programming friendly language.

Example: Java, Python, C++, Visual Basic

Low Level Language -

1. Programmer focus on the specific architecture and hardware.
2. They are close to native language of a computer (binary), making them harder for programmer to understand.
3. It is programming friendly language.

Example: Assembly Language and Machine Code.

Compiler -

Translates entire program written in high level language into machine code in one go.

Interpreter -

Translates program written in high level language one statement at a time into machine code.