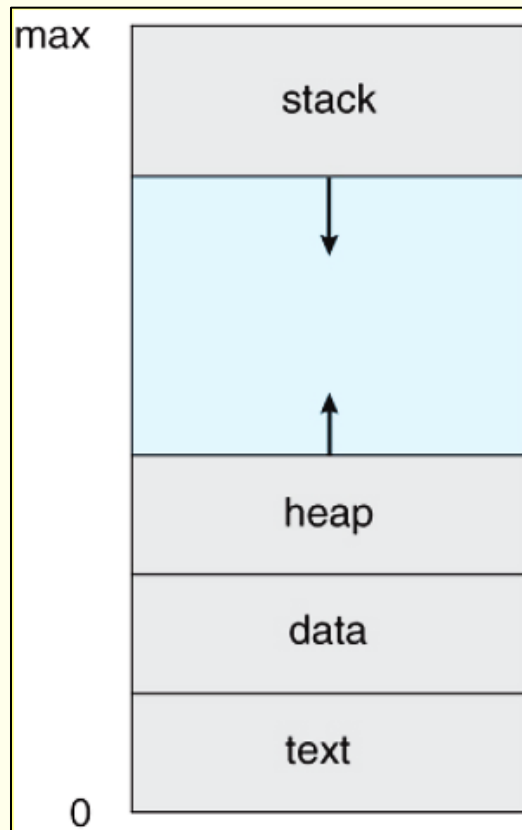# What is Process and its architecture?

Process is the instance of a program that performs the actions specified in that program. It can be defined as an execution unit where a program runs. The OS helps you to create, schedule, and terminates the processes which is used by CPU.

- **Stack:** The Stack stores temporary data like function parameters, returns addresses, and local variables.
- **Heap:** The heap is used for dynamic memory allocation, and is managed via calls to new, delete, malloc, free, etc.
- **Data:** The data section stores global and static variables, allocated, and initialized prior to executing main.
- **Text:** The text section comprises the compiled program code.

Note that the stack and the heap start at opposite ends of the process's free space and grow towards each other. If they should ever meet, then either a stack

overflow error will occur, or else a call to new or malloc will fail due to insufficient memory available.