

nformation

This includes the amount of CPU used for process execution, time limits, execution ID etc.

10

IO status information

This includes a list of I/O devices allocated to the process.

Process

A process is basically a program in execution. The execution of a process must progress in a sequential fashion.

A process is defined as an entity which represents the basic unit of work to be implemented in the system.

To put it in simple terms, we write our computer programs in a text file and when we execute this program, it becomes a process which performs all the tasks mentioned in the program.

When a program is loaded into the memory and it becomes a process, it can be divided into four sections – stack, heap, text and data. The following image shows a simplified layout of a process inside main memory –

Process Components

S.N. Component & Description

1

Stack

The process Stack contains the temporary data such as method/function parameters, return address and local variables.

2

Heap

This is dynamically allocated memory to a process during its run time.

3

Text

This includes the current activity represented by the value of Program Counter and the contents of the processor's registers.

4

Data

This section contains the global and static variables.

Program

A program i