

ntial 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
2	Heap
3	Text
4	Data

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

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

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

This section contains the global and static variables.

#### Program

A program is a piece of code which may be a single line or millions of lines. A computer program is usually written by a computer programmer in a programming language. For example, here is a simple program written in C programming language –

```
#include <stdio.h>
```

```
int main() {  
    printf("Hello, World!  
");  
    re
```