

## 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 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!  
");  
    return 0;  
}
```

A computer program is a collection of instructions that performs a specific task when executed by a computer. When we compare a program with a process, we can conclude that a process is a dynamic instance of a computer program.

A part of a computer program that performs a well-defined task is known as an algorithm. A collection of computer programs, libraries and related data are referred to as a software.

## Process Life Cycle

When a process executes, it passes through different states. These stages may differ in different operating systems, and the names of these states are also not standardized.

In general, a process can have one of the following five states at a time.

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