

[L :- 9]

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Introduction to Process

Steps

- (a) Load the program & static data into memory.
- (b) Allocate runtime stack.
- (c) Heap memory allocation.
- (d) I/O tasks.
- (e) OS handoffs control to main().

• Architecture of process

Stack	Local variables, function args, ^{return values}
Heap	Dynamically allocated variables
Data	Global & static data.
Text	Compiled code (loaded from disk).

~~Attributes~~

• Attributes of process:

(a) Feature that allows identifying a process uniquely.

(b) Process table:-

(1) All processes are being tracked by OS using a table like data structure.

(2) Each entry in that table is process control block (PCB).

(c) PCB: Stores info/attributes of a process.

(i) Data structure used for each process, that stores info. of a process such as process id, program counter, process state, priority etc.

• PCB structure :-

Process ID
Program Counter (PC)
Process State
Priority
Registers
List of open files