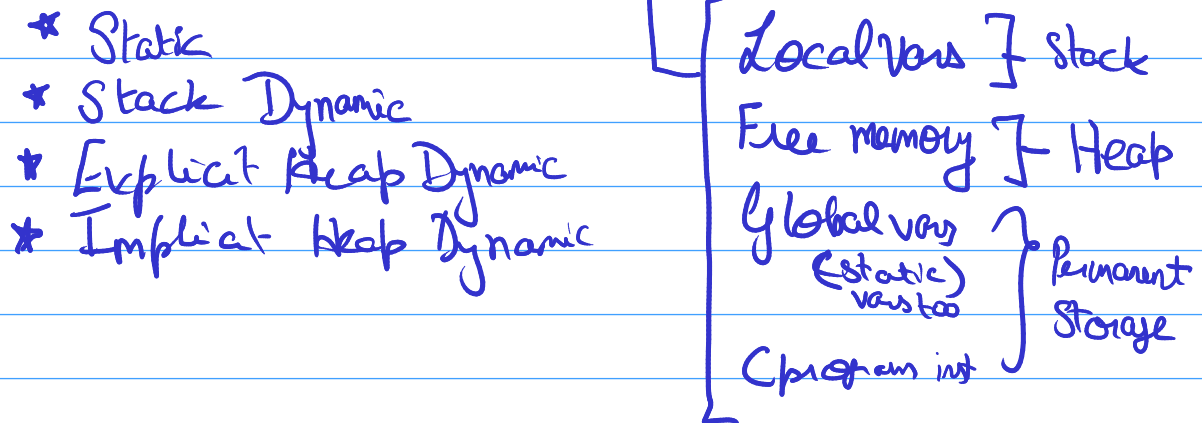


process → address space



Heap-dynamic variables:

Explicit heap-dynamic variables:

Are nameless (abstract) memory cells that are allocated and deallocated by explicit run-time instructions written by the programmer.

Referenced through pointers or references only.

Created explicitly either by operator (new) or call to system subprograms.

Ex: `int *innode;`
`innode = new int;`

Explicit deallocation is done in some PLs like C++.

`delete innode;`

Explicit deallocation is done in some PLs like C++.

Heap is collection of storage cells. Highly disorganized.

Often used to build dynamic structures like stack, tree etc which can be built conveniently using pointers/ref. *Size can grow*

Often used to build dynamic structures like stack, tree etc which can be built conveniently using pointers/ref and explicit heap-dynamic variables.

Disadvantages:

- 1, difficulty in using pointers.
2. Cost induced by references.
3. Complexity in storage management implementation.