

Storage Classes in C

To fully define a variable one needs to mention not only its type but also its 'storage class'. i.e not only do all variables have a datatype, they also have a 'storage class'.

A variable name identifies some physical location within the computer where the variable's value is stored. There are 2 kinds of locations in a computer where such a value is stored:-

1.Memory and 2.CPU registers.

A variable's storage class tells us:

- 1.Where the variable would be stored.
- 2.What will be the initial value of the variable(default initial value)
- 3.Scope of the variable.
- 4.Lifetime of the variable

There are 4 storage classes in c:

1Automatic 2.Register 3.Static 4.External

Storage Class	Location	Default value	Scope	Lifetime
Automatic	Memory	Garbage value	Local to the block in which the variable is defined	Till the control remains within the block in which the var is defined
Register	CPU registers	Garbage value	Local to the block in which the variable is defined	Till the control remains within the block in which the var is defined
Static	Memory	Zero	Local to the block in which the variable is defined	Value of the variable persists between different function calls
External	Memory	Zero	Global	As long as the program's execution doesn't end