

## NIOS Computer Science: Chapter 12 – Function Part 6

```
1
2
3 var global = 10;
4
5 function fun() {
6
7     var local = 5;
8
9 }
10
11
12
13
```

*Annotations in the code block:*  
- A red arrow points from the text "global variable" to the variable "global" on line 3.  
- A blue arrow points from the text "local variable" to the variable "local" on line 7.  
- The function body (lines 5-9) is highlighted with a light blue background.

Image Shows Types Of Variables

### IV. Global and Local Variables

The variable declared in a program may broadly be classified into following two types;



Image of Global and Local Variables

#### I) Local Variable

A variable declared within the body of a function will be evaluated only within the function.

The portion of the program in which a variable is retained in memory is known as the scope of the variable.

The scope of the local variable is a function where it is defined. A variable may be local to function or compound statement.

#### ii) Global Variable

A variable that is declared outside any function is known as a global variable.

The scope of such a variable extends till the end of the program.

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These variables are available to all functions which follow their declaration.

So it should be defined at the beginning, before any function is defined. If in a program, variable *a* is declared as local as well as global.

### Example 4

```
# include <iostream.h>
```

```
int m = 2;
```

```
void main ( )
```

```
{
```

```
int m = 15;
```

```
{
```

```
int m = 10× :: m;
```

```
cout << "m = " << m << "\n";
```

```
cout << " :: m = " << :: m << "\n"
```

```
}
```

```
cout << "m = " << m << "\n";
```

```
cout << " :: m = " << :: m << "\n";
```

}The output of the above program is

```
m= 20
```

```
:: m = 2
```

```
m = 15
```

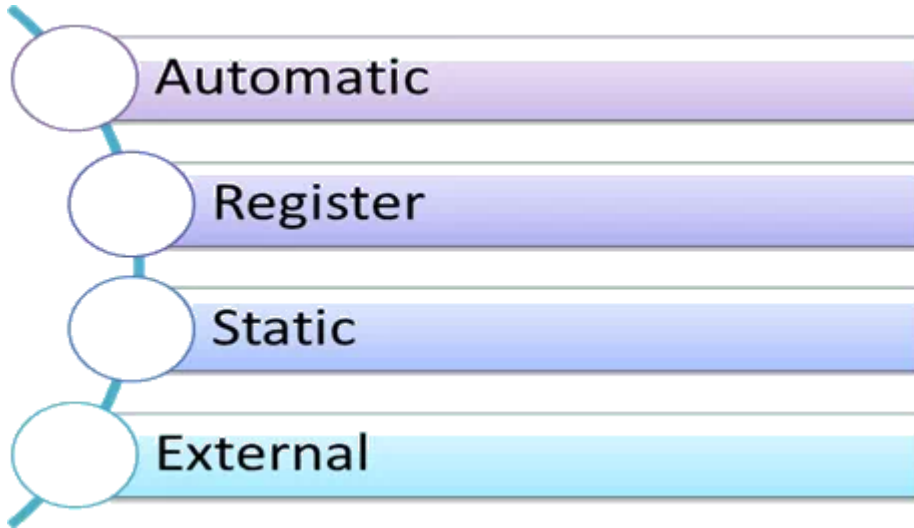
```
:: m = 2
```

## Variables and Storage Class

The storage class of a variable determines which parts of a program can access it and how long it stays in existence.

The storage class can be classified as

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*Image of Variables and Storage Class*