Variable

In C language, Variables are of 2 types:

1. local variable (inside main ())
2. global variable (outside main ())

Ex:

```
#include<stdio.h>
#include<conio.h>
#define pi=3.14;// Global variable
main()
{
int i=10;// Local variable
clrscr();
---------
---------
---------
---------
---------
return 0;
}
```

In JAVA language, Variables are of 2 types:

1. Instance variable

----

a.) The variable which is declared inside a "Class".
b.) The contents here are known as " Non-static contents ".
c.) JVM gives the first priority to Non static contents only.

2. Local variable

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a.) The variable which is declared inside a "Method or Function".
b.) The contents here are known as " Static contents ".
c.) JVM gives the second priority to static contents.

new() operator

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1. It is a special kind of operator in JAVA.
2. It is used in Object creation.
3. It Reserves Some memory inside RAM for Object purpose.
4. It is used to transfer Non-Static contents from Hard disk to RAM.

*** **Default Memory of Object is " 64 KB ".**

Reference Variable

It is used to hold Objects Address.

Binding

Linking Method call to Function Definition.

Two types of Binding:

1.) Static Binding (Compile time) ---Early Binding
2.) Dynamic Binding (Runtime)-----Late Binding

Constructor

It is used in Creation of Object.

Two types of Constructors:
1.) Default (No-args)
2.) Parameterized

Method Signature

Method Signature= function name + parameters list

syntax: f1()

Function Declaration-------- void f1();

Function Definition

```
void f1()
{
----------
----------
----------
----------
----------
}
```

Function Example:

```
class A
{
void f1()
{
---
----
-----
----
}
}
```

Constructor Example:

```
class A
{
A ()
{
---
----
----
---
}
}
```

Differences between Function and Constructor are:

1.) void is presented before function and there is no necessity of mentioning void before constructor.
2.) class name and function name must not be same. class name and constructor name must be same.

Call by Value:

Conversion of Actual (or) Original Parameters to Formal Parameters.

Actual Parameter:

The Parameter which is declared inside “Method Call ".

Syntax----- obj.f1(10,20);

Here, 10&20 are Actual Parameters.

Formal Parameter:

The Parameter which is declared inside " Function Definition ".

Syntax------ void f1(int a,int b)

Here, int a & int b are Formal Parameters.