**Class**

“Class is a blue print or a template to create an object”. A class specifies the design of an object. It states what data an object can hold and the way it can behave.

Example

Class Car{

Class Body

}

Class Fruit{

Class Body

}

**Members of class**

1. **Variables (Fields)**

Variable is named memory location which can hold value and the value can change any number of times during execution. It is also an identifier in java.

(Rules are same as class while naming the variable)

int i; //Declaration

i=10; //Initialization

int i=10; //both Declaration and Initialization

**Local variable:** Variable which is declared within a method or block.

Before utilize local variable it should be initialized.

**Global variable:** Variable which is declared within a class and outside of any method or a block. Declaration and initialization should be done in same line. If you are utilizing without initialization it will take default value.

**There are seven kinds of variables:**

**1.** A **class variable** is a field declared using the keyword static within a class declaration, or with or without the keyword static within an interface declaration

A class variable is created when its class or interface is prepared (and is initialized to a default value. The class variable effectively ceases to exist when its class or interface is unloaded.

**2.** An **instance variable** is a field declared within a class declaration without using the keyword static.

**3. Array components** are unnamed variables that are created and initialized to default values whenever a new object that is an array is created.

**4. Method parameters** name argument values passed to a method.

**5. Constructor parameters** name argument values passed to a constructor.

**6.** An **exception parameter** is created each time an exception is caught by a catch clause of a try statement.

**7. Local variables** are declared by local variable declaration statements.

Example. Different Kinds of Variables

class Point {

static int numPoints; // numPoints is a class variable

int x, y; // x and y are instance variables

int [] w = new int[10]; // w[0] is an array component

void setX(int a) { // a is a method parameter

int oldx = a; // oldx is a local variable

}

}