Class and Object

- "class" is the keyword
- With the help the class keyword we can define our data type
- In the class we can declare variables called fields which are used to store the data
- In the class we can define functions called methods which are used to manipulate the values
- "class" is a collection of states and behaviors state is nothing but fields which are used to hold the values. Behaviors are nothing but methods which are used to manipulate the values
- "class" a blue print of an "Object"
- "class" a template
- Not compulsory to define a class with both fields and methods

Syn:

```
class  <ClassName>:
       Declare variables
            Fileds

       Define functions
            Methods
```

Eg: class Sample: [empty class]

```
      Pass
```

Object

- As we know that is class is a logical representation it doesn't occupy any space in the memory.
- To allocate the memory for the fields and to access the members of the class then we need to define an object
- An Object is the physical representation of the class
- An object is an "instance of a class"
- To Create an Object For the class

Syn:

<ref_variablename>=<className>([List of args])

S=Sample( ) [constructor]

- For the reference variable memory is allocated with in the stack.
- Constructor is as an initializer method which is used for object instantiation and initialization
- Whenever the constructor is called an Object of the class is created "Heap"
- For Every Object an unique identity is created called [hashcode] it will referred by the reference variable

Note: Based on your application requirements we can create N no.of.Objects for the class