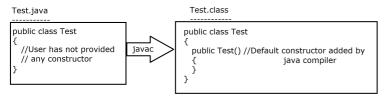
## Default constructor added by compiler :

\* In java, whenever we write a class and if we don't write any type of constructor in that particular class then automatically javac will add one default constructor to the class.



- \* Every java class must contain at-least one constructor either explicitly written by developer OR implicitly added by java compiler.
- \* The access modifier of default constructor depends upon class access modifier that means if class access modifier is public then the default constructor added by java compiler would also be public, on the other hand if class is non public then default contsructor access modifier is also non public.

```
Why default constructor is added by java compiler :
                                                                  Student Object (1000x)
public class Student
                                                                    roll = 0
  int roll:
                                                                    name = null
  String name;
   public Student() //default constructor
     super();
                                                raj
   public void show()
      System.out.println(roll);
System.out.println(name);
                                                                    show()
   }
                                                                    }
public class StudentDemo
  public static void main(String [] args)
      Student raj = \underline{\text{new Student()}};
      s1.show();
}
```

- \* new keyword is responsible to allocate the memory for all the non static members (non static field + non static method), now with the support of **java compiler**, new keyword is responsible to initialize all the non static field with defaults, This process is known as Instantation process.
- \* At the time of object creation by using new keyword, we depend upon **constructor** so, we can say without contsructor support object creation is not possible in java. default constructor is provided by compiler to support the Object creation in java.
- \* As we know, new keyword is responsible to initialize the non static field with the support of java compiler but the default values provided by new keyword is not useful for the developer hence by writing user-defined constructor, a developer can modify those default values with user-defined values.

## default values are :

```
Data type - Default value
short
                 0
long
                 0
                 0.0
double
                 0.0
                  '\u0000' [space]
char
boolean
                 false
 String
                 null
Integer
any ref. var
                  null
                 null
```