

Q1 > What is the difference between the static and the non-static variables of a class explain it with an example?


Answer : The static variable will be loaded into RAM before execution directly hence they will be available for the CPU for the execution.

While non-static variables will not be present in the RAM before execution directly & will be stored in the secondary memory like Hard Disk or SSD.

Hence we cannot use the non-static variable directly for the execution, we have to load it into the RAM dynamically first if we want to use them.

Eg: Variables with Static written in front are Static Variables.

```
5 public class Student {
6
7     int roll;
8     String name;
9     int marks;
10
11     void displayStudentDetails() {
12         System.out.println("Roll is : "+roll);
13
14         System.out.println("Name is : "+name);
15
16         System.out.println("Marks is: "+marks);
17     }
18
19     public static void main(String[] args) {
20
21         Student s1 = new Student();
22
23         s1.roll = 45;
24         s1.name = "Vishal Singh";
25         s1.marks = 90;
26         s1.displayStudentDetails();
27         s1 = null;
28
29         Student s2 = s1;
30         s2.roll = 12;
31         s2.name = "Elon Musk";
32         s2.marks = 98;
33         s2.displayStudentDetails();
34         s2 = null;
35     }
36 }
```



The diagram shows a box containing the non-static variables `int roll;`, `String name;`, and `int marks;` from the code snippet. An arrow points from this box to a yellow box labeled *Non-Static Variables*.