**Method Overloading In Java**

When a class has more than one method with same name, then we call that method is overloaded. The overloaded methods will have different number of arguments or different types of arguments, but name of the methods remains same.

Compiler checks **method signature** for duplicate methods or for method overloading. method signature consist of three things, **1) Method Name   2) Number Of Arguments   3) Types of arguments.**

Overloaded methods may have same return types or different return types. It does not effect method overloading.Means returun type does not matter in method overloading.

**Important Note:**

1. **Return type:**

If two methods have same signature and different return types, then those methods will not be treated as two different methods or methods overloaded. For duplication, compiler checks only method signature not return types. If method signature is same, straight away it gives duplicate method error.

1. Access modifier:

Overloaded methods may have same access modifiers or different access modifiers. It also does not effect method overloading.

1. Static or not static does not matter

It is clear that compiler will check only method signature for method overloading or for duplicate methods. It does not check return types, access modifiers and static or non-static.