# **Method Overloading**

**What is method overloading in java ?**

A class having two or more methods with same name but with different arguments then we say that those methods are overloaded. Static polymorphism is achieved in java using method overloading. Method overloading is used when we want the methods to perform similar tasks but with different inputs or values. When an overloaded method is invoked java first checks the method name, and the number of arguments, type of arguments; based on this compiler executes this method. Compiler decides which method to call at compile time. By using overloading static polymorphism or static binding can be achieved in java.

Note: Return type is not part of method signature. we may have methods with different return types but return type alone is not sufficient to call a method in java.

**Can a main() method be overloaded?**

Yes. You can have any number of main() methods with different method signature and implementation in the class.

**Why does Java not support operator overloading?**

Operator overloading makes the code very difficult to read and maintain. To maintain code simplicity, Java doesn't support operator overloading.

**What restrictions are placed on method overloading?**

Two methods may not have the same name and argument list but different return types.

**Can a method be overloaded based on different return type but same argument type ?**

No, because the methods can be called without using their return type in which case there is ambiquity for the compiler.