Can main() method in Java be overloaded? Justify.

**Yes, the main method in java can be overloaded.** The main method is not any kind of different method in java, it’s just like any other method in java, the only speciality being that the program execution begins at the main. It can be overloaded in the same way as other methods.

So, Overloading in java is basically the ability of java to define more than one method with the same name in the class. The compiler distinguishes between the methods because of their method signatures. 2

The Java Virtual Machine (JVM) looks for the method signature to launch the program. The method signature that JVM looks for is **public static void main (String [] args).** This acts as the start point for the JVM to start the execution of the given program. The other methods may differ in the number of arguments or the type of arguments.

As a possible variation, in the main method, we can have Double [] args or Integer [] args, as the parameters for the main. Now, the task is as to how we call the overloaded methods. We can call it just like any other methods.

Here, we need a small example to understand the concept of main method overloading in java. This is separate from the example that should be given.

import java.io.\*;

public class index {

//Usual Main Method

public static void main(String[] args) {

System.out.println("Hello, this is Raghav from normal main method");

index.main("Raghav");

}

// Overloaded main methods

public static void main(Stringavr1) {

System.out.println("Hi, " + var1);

index.main("Raghav","Maheshwari");

}

//Overloaded main method

public static void main(String var1, String var2) {

System.out.println("Hi, " + var1 + " " +avr2);

}

}

The output will be:

C:\Users\lenovo\Documents\Edx Course>java index

Hello, this is from the Normal Main method

Hi, Raghav

Hi, Raghav Maheshwari.

The JVM or the java virtual machine will begin its execution at the usual main method and prints the message, it then gives a call to a method that takes one string as parameter, that main method is executed, which again gives a call to a main method with two string arguments, and in this way we generate the output given.

**Hence, in conclusion, it is concluded that the main method in java can be overloaded and the justification for the same is described above.**

References:

1. <https://www.tutorialspoint.com/Can-we-overload-the-main-method-in-Java>
2. <https://stackoverflow.com/questions/3759315/can-we-overload-the-main-method-in-java>