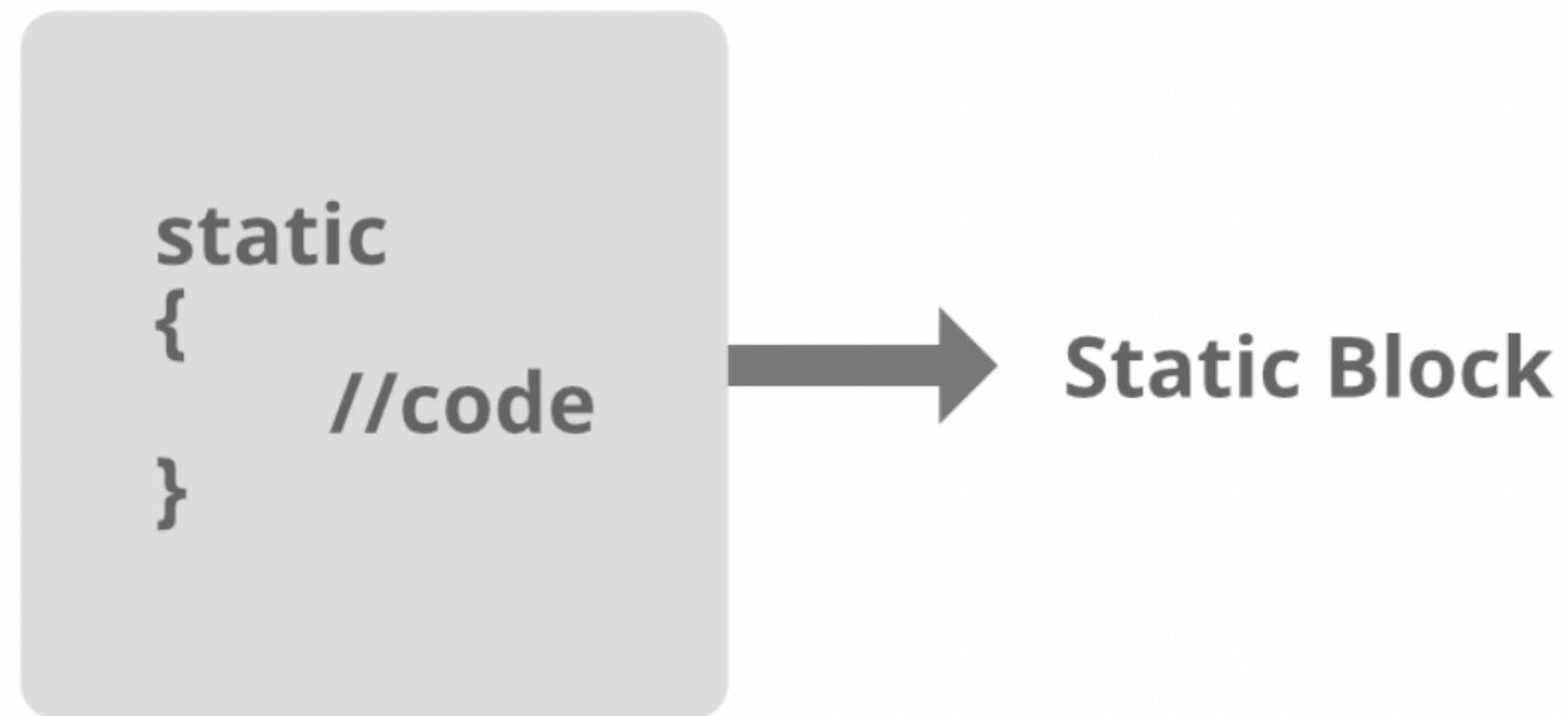


Static block: is a block of code with a static keyword. It's a set of instructions, that is run only once, when a class is loaded into memory. In general, these are used to initialize the static members of a class.

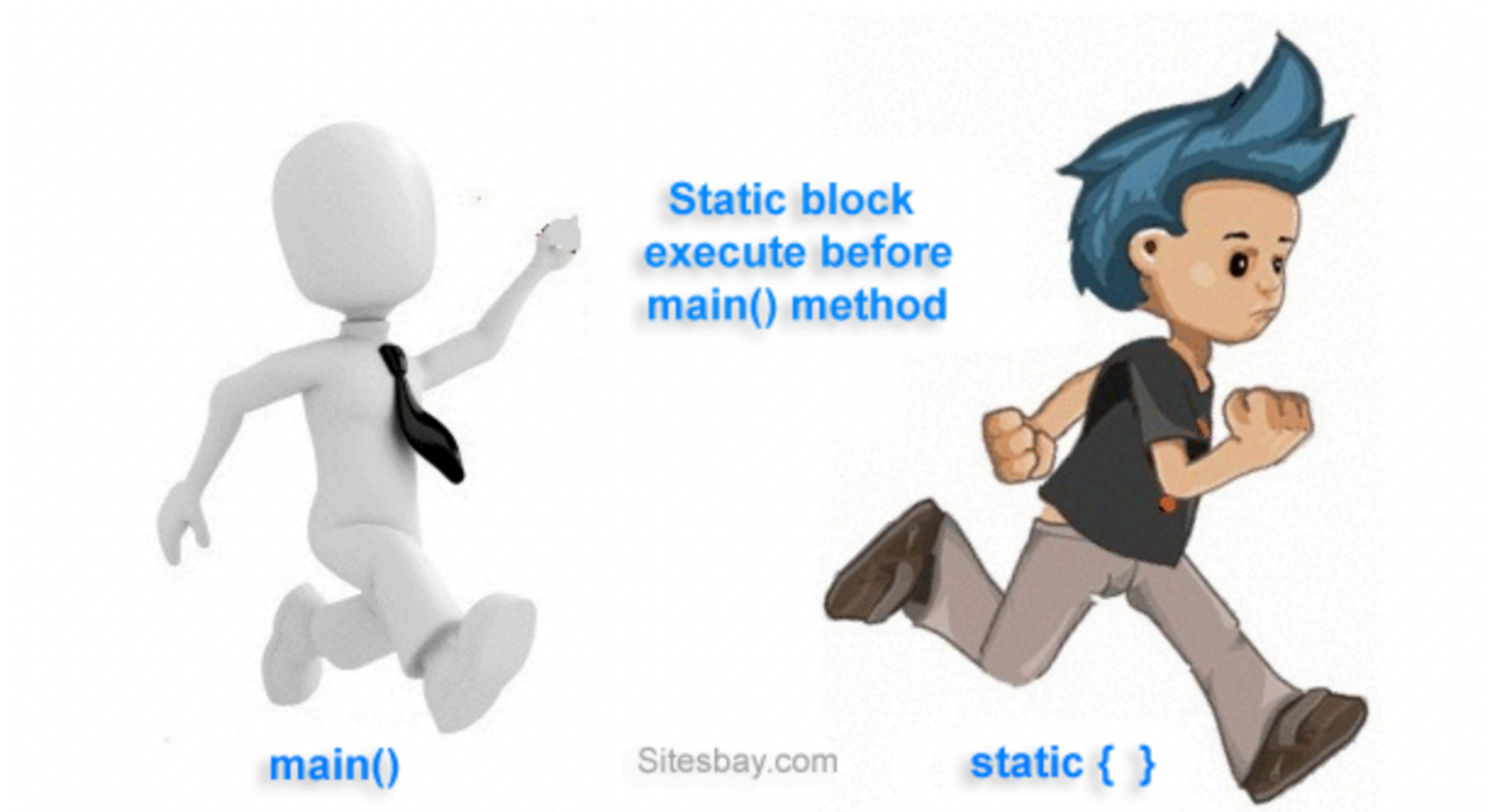


Static block also called Static initialization block or Static initializer.

We can say, that in this case “static” is a keyword, which allows you to have access to that block of code anytime from anywhere in the project.

Static block, execution flow:

Static block runs once, **before** anything else, when the class is loaded(used) for the first time.



Example

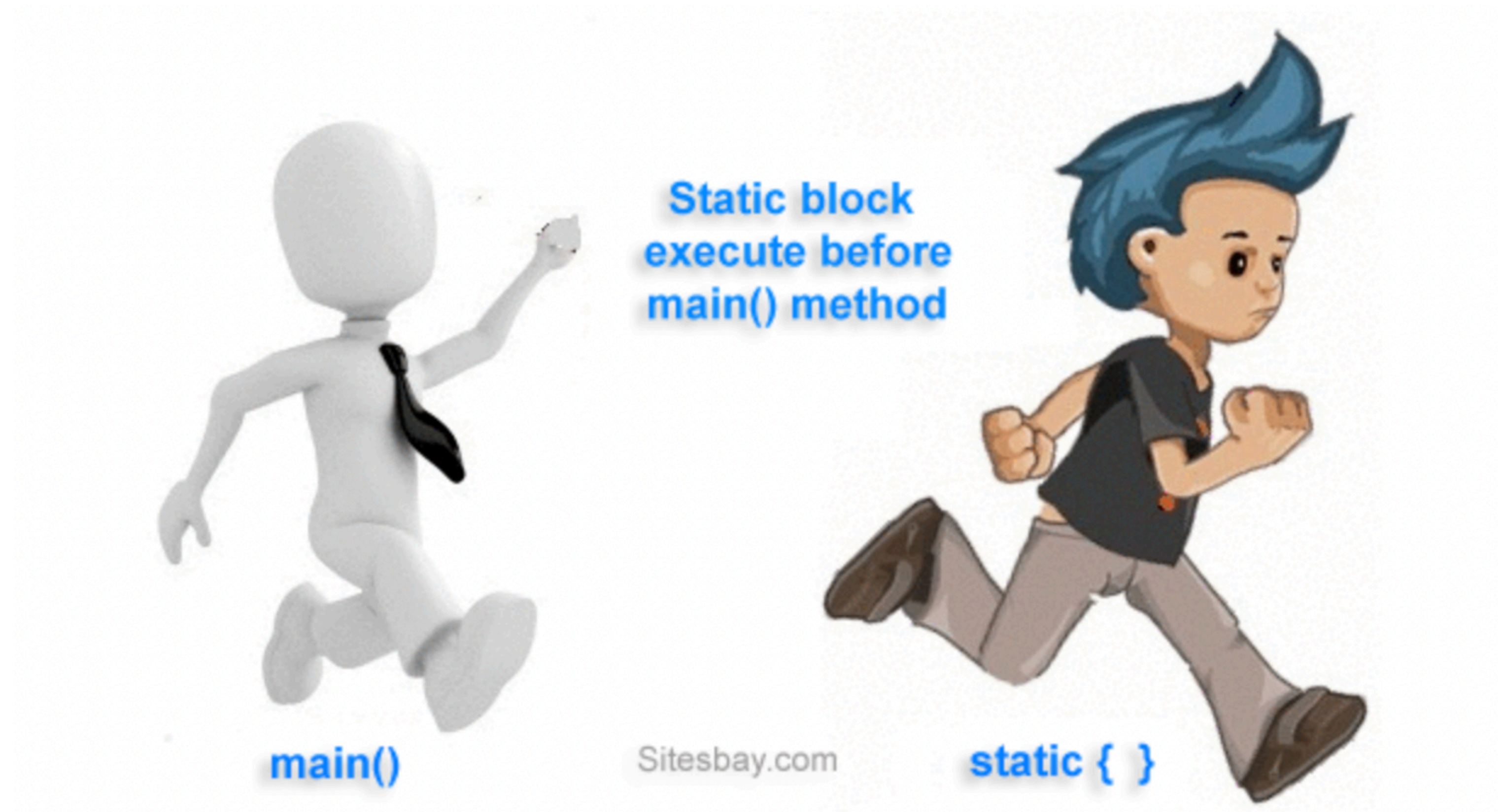
```
public class MyClass {  
    static{  
        System.out.println("Hello this is a static block");  
    }  
    public static void main(String args[]){  
        System.out.println("This is main method");  
    }  
}
```

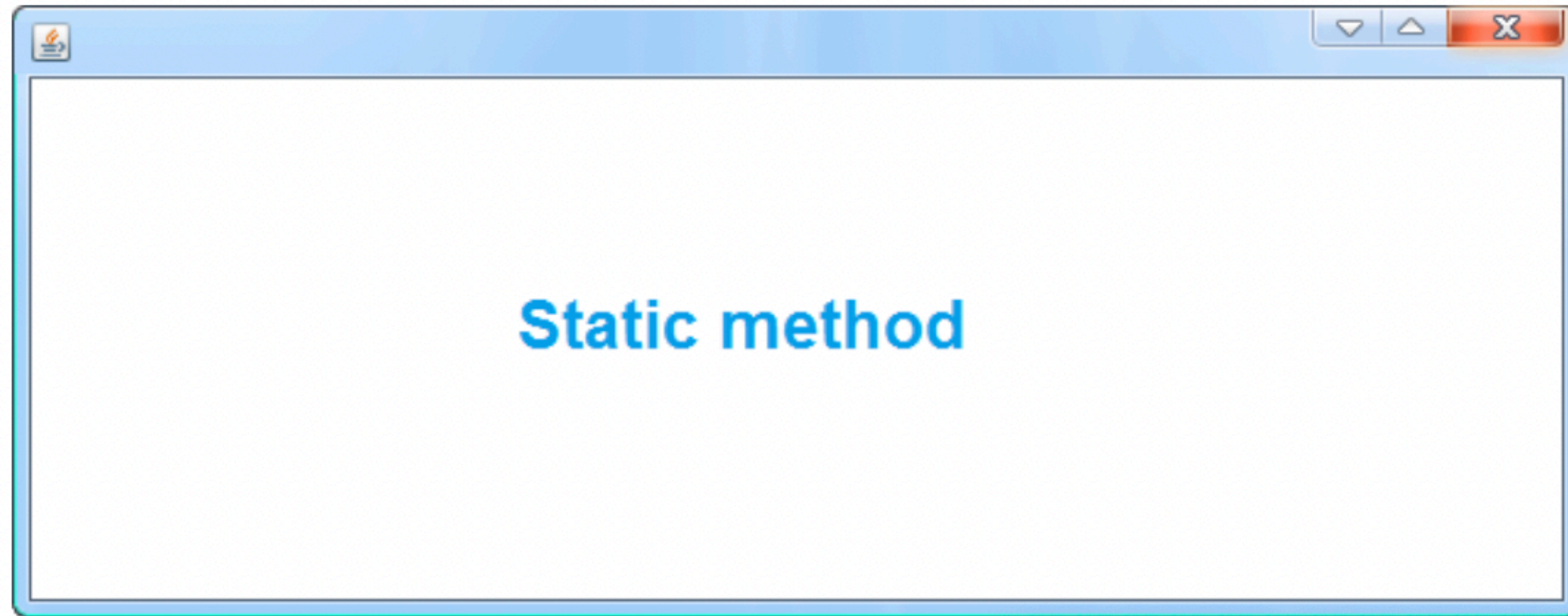
Output

```
Hello this is a static block  
This is main method
```

Why a static block executes before the main method ?

A class has to be loaded in main memory before we start using it. Static block is executed during class loading. This is the reason why a static block executes before the main method.





Static methods: are the methods in Java that **can be called without creating an object of class**. They are referenced by the class name itself.

In the **static** method, the method can only access static data members and static methods of another class or same class but **cannot** access non-static (instance) methods and variables.

```
public static void geek(String name)
{
    // code to be executed....
}

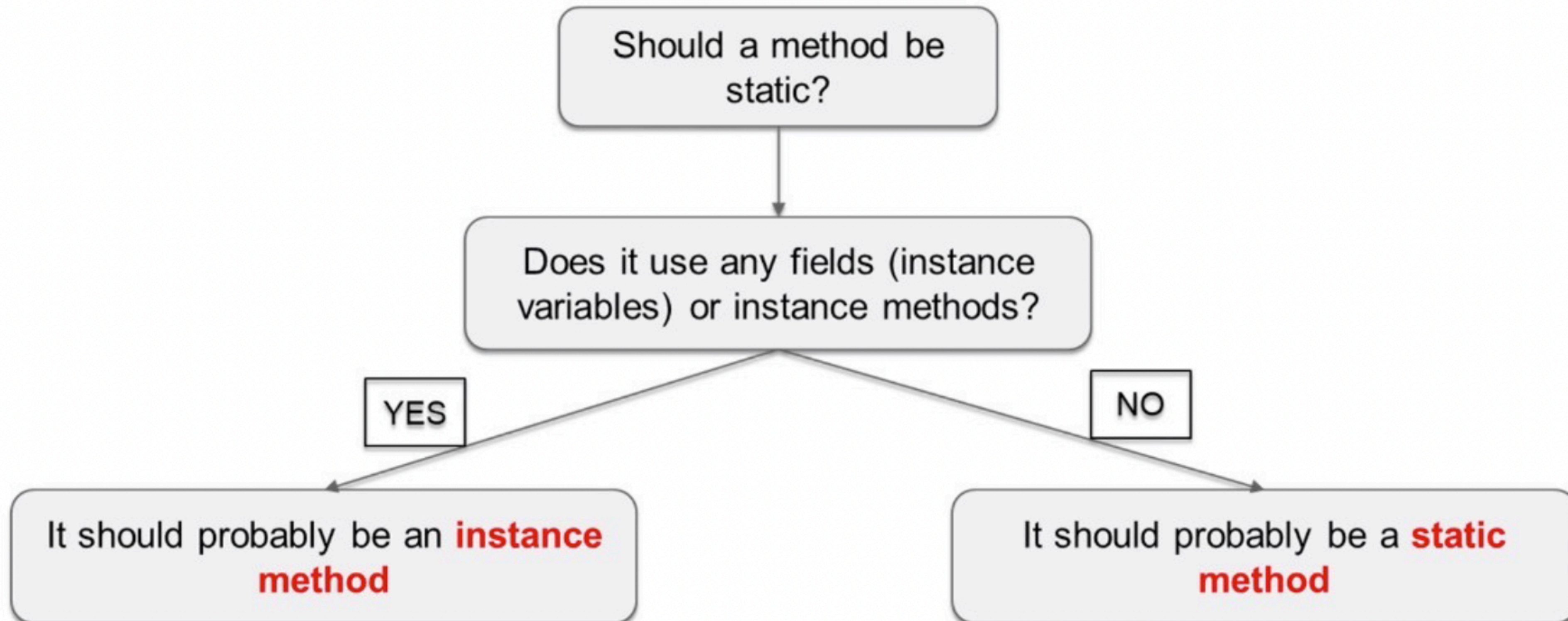
// Must have static modifier in their declaration.
// Return type can be int, float, String or user defined data type
```

- Static methods have one single copy belonging to the class (it means when you declare a field in a class as static and set it to a value, every instance object of that class refer to the same value. If you change the value, all instances will see that change)
- Static methods are accessed quickly
- Static methods are **utility methods**

Why the main () method in Java is always static?

Java main() method is always static, so that compiler can call it without the creation of an object or before the creation of an object of the class. In any Java program, the main() method is the starting point from where compiler starts program execution.

Static or instance method?



Static objects in other classes

A static variable can be accessed inside any other class using the class name.

Static Imports

- With the help of **import**, we are able to access classes and interfaces which are present in any package. But using **static import**, we can access all the static members (variables and methods) of a class directly without explicitly calling class name

```
import static packageName.className.staticMember;
```

Imports **one** static member from a class

```
import static packageName.className.*;
```

Imports **all** the static members from a class