



Custom Class: Statics

Static

- Declared with **static** keyword
- Belongs to the class, and can be called through the class
- There is only **one copy** of the static shared for all objects of the class
- All the Objects of the class shares the same copy

Statics Members

- **Static** is applicable for the following:
 - Variables
 - Methods
 - Blocks
 - Class

Static Variables

- Refer to the common property of all objects
- It gets memory only once in the class area at the time of class loading
- A single copy of a class 's static variable is shared by all objects of the class
- If changes are made to static variables, all other instances will see the effect of the change

Static Variables

Static variable

```
public class CydeoStudent {  
    public String name;  
    public int age;  
    public static String schoolName = "Cydeo School";  
}
```

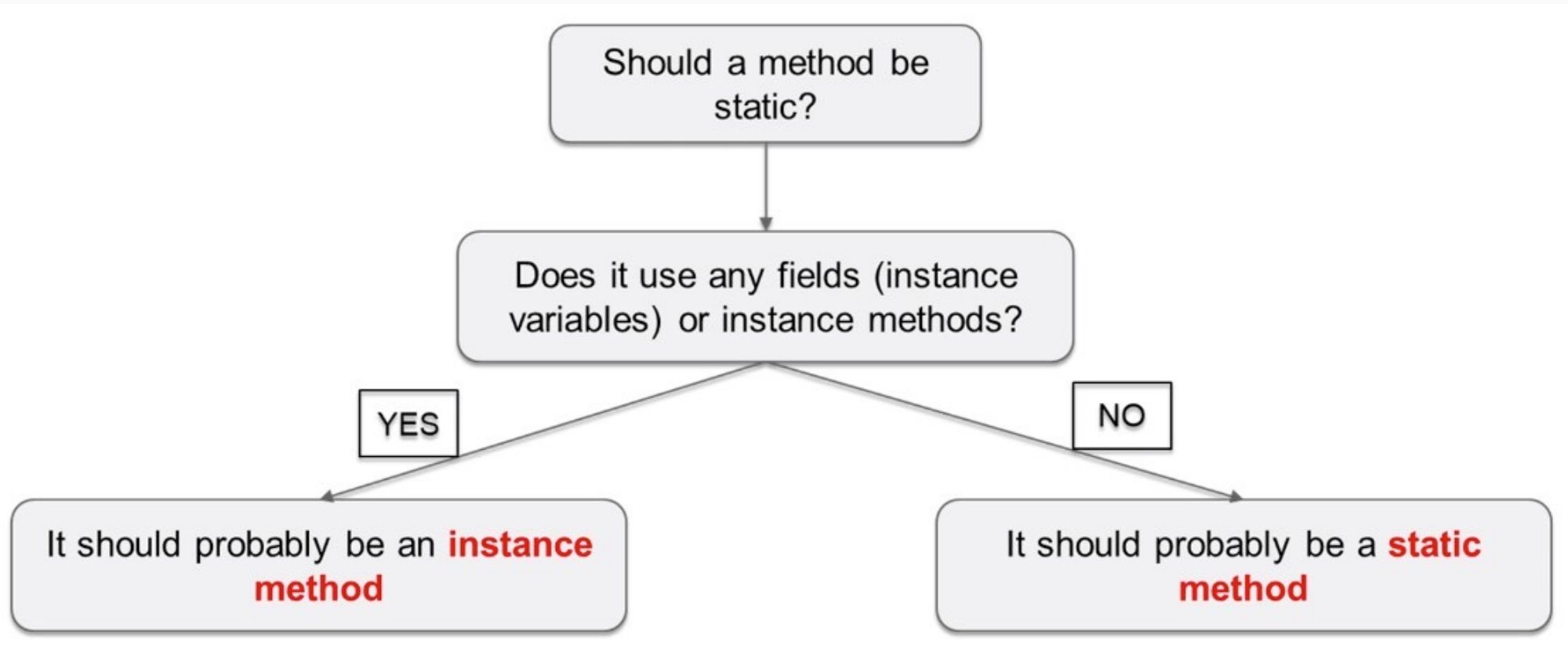
```
public class Circle {  
    public double radius;  
    public static double pi = 3.14;  
}
```

Static variable

Static Methods

- If we declare any methods as static, it's known as static methods
- A method that can be called using class name, without creating objects
- Objects can also call static methods
- Static methods only accept static members

Static or instance method?



Static Methods

```
public class CydeoStudent {  
    public String name;  
    public int age;  
  
    public static String schoolName = "Cydeo School";  
  
    public static void getSchoolInfo(){  
        System.out.println("School Name is " + schoolName);  
    }  
}
```

Static method

Static variable

```
public class Circle {  
    public double radius;  
  
    public static double pi = 3.14;  
  
    public static void displayPiValue(){  
        System.out.println("PI's value is " + pi);  
    }  
}
```

Static method

Static variable

Static method vs Instance method

Static method	Instance method
Static methods can not access instance methods and instance variables directly	Instance methods can access instance methods and instance variables directly
In static methods we can not use the “this” keyword	Instance methods can also access static methods and static variables directly

Static Block

- It's a set of instructions that is run only once when a class is loaded into memory
- A static block is also called static initialization block

```
public class Car {  
    static {  
        //static block  
    }  
}
```

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