

Question :- what is an interface in java?

Interface in Java

Interface

Example of Interface

Multiple inheritance by Interface

Why multiple inheritance is supported in Interface while it is not supported in case of class.

Marker Interface

Nested Interface

An interface in Java is a blueprint of a class. It has static constants and abstract methods.

The interface in Java is a mechanism to achieve abstraction. There can be only abstract methods in the Java interface, not method body. It is used to achieve abstraction and multiple inheritance in Java.

In other words, you can say that interfaces can have abstract methods and variables. It cannot have a method body.

Java Interface also represents the IS-A relationship.

It cannot be instantiated just like the abstract class.

Since Java 8, we can have default and static methods in an interface.

Since Java 9, we can have private methods in an interface.

Why use Java interface?

There are mainly three reasons to use interface. They are given below.

It is used to achieve abstraction.

By interface, we can support the functionality of multiple inheritance.

It can be used to achieve loose coupling.

Question :- which modifiers are allowed for methods in an interface? Explain with example?

An interface in Java is a specification of method prototypes. Whenever you need to guide the programmer or, make a contract specifying how the methods and fields of a type should be you can define an interface.

In Java 7

As of Java 7 you can have only public, abstract as modifiers for the methods of an interface.

```
interface MyInterface{  
    public abstract void display();  
    public abstract void setName(String name);  
    public abstract void setAge(int age);  
}
```

Using any other modifier with the methods of an interface would lead to a compile time error.

From Java 8

From Java 8 onwards interfaces allow default methods and static methods.

Static methods - A static method is declared using the static keyword and it will be loaded into the memory along with the class. You can access static methods using class name without instantiation. You need to call static method of an interface using the name of the interface.

Example

Live Demo

```
interface MyInterface{  
    public void demo();  
    public static void display() {  
        System.out.println("This is a static method");  
    }  
}  
  
public class InterfaceExample{
```


Question :- what is the use of interface in java with example?

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Question :- What is the difference between interface and abstract class?

Difference between abstract class and interface:-

Definition: An abstract class is a class that cannot be instantiated and can contain both abstract and non-abstract methods. An interface, on the other hand, is a contract that specifies a set of methods that a class must implement.