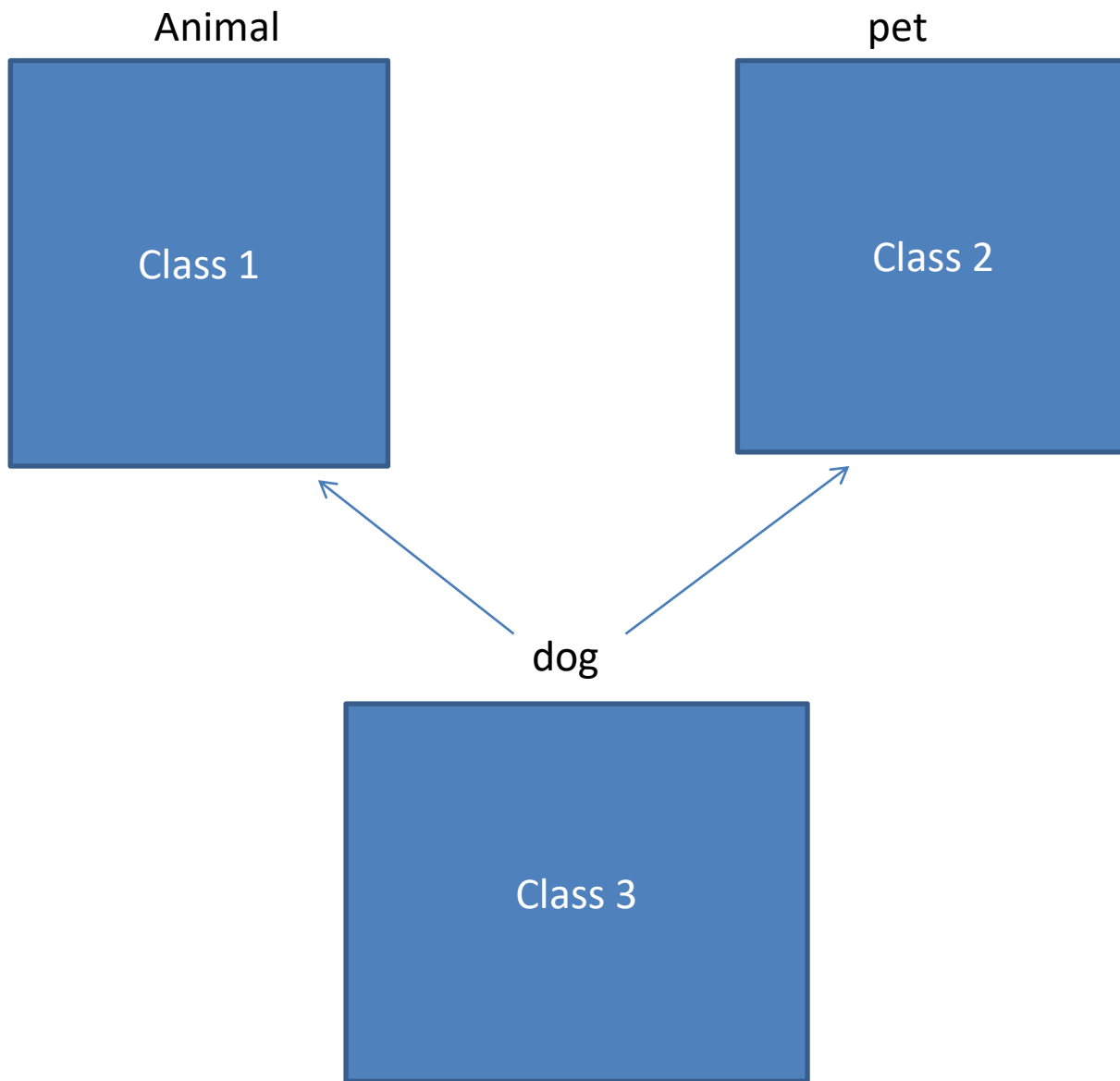


Interface

23-06-2020



Multiple Inheritance

Interface

- An interface is just like Java Class, but it only has static constants and abstract method. Java uses Interface to implement multiple inheritance. A Java class can implement multiple Java Interfaces. All methods in an interface are implicitly public and abstract.

Syntax for Declaring Interface

```
interface <interface name>
{
    //methods
}
```

```
Interface animal
```

```
{
```

```
}
```

```
Interface pet
```

```
{
```

```
}
```

```
Class dog implements animal,pet
```

```
{
```

```
}
```

```
class animal
```

```
{
```

```
}
```

```
Interface pet
```

```
{
```

```
}
```

```
Class dog extends animal implements
```

```
{
```

```
}
```

- To use an interface in your class, append the keyword "implements" after your class name followed by the interface name.
- A Java class can implement multiple Java Interfaces. It is necessary that the class must implement all the methods declared in the interfaces.
- Class should override all the abstract methods declared in the interface
- The interface allows sending a message to an object without concerning which classes it belongs.
- Class needs to provide functionality for the methods declared in the interface.
- All methods in an interface are implicitly public and abstract
- An interface cannot be instantiated
- An interface reference can point to objects of its implementing classes
- An interface can extend from one or many interfaces. Class can extend only one class but implement any number of interfaces
- An interface cannot implement another Interface. It has to extend another interface if needed.
- An interface which is declared inside another interface is referred as nested interface
- At the time of declaration, interface variable must be initialized. Otherwise, the compiler will throw an error.
- The class cannot implement two interfaces in java that have methods with same name but different return type.

Difference between Class and Interface

Difference between Class and Interface


Class	Interface
In class, you can instantiate variable and create an object.	In an interface, you can't instantiate variable and create an object.
Class can contain concrete(with implementation) methods	The interface cannot contain concrete(with implementation) methods
The access specifiers used with classes are private, protected and public.	In Interface only one specifier is used- Public.

- In Java Language use various pre-define Interface:-
 - ActionListener
 - FocusListener
 - ItemListener
 - KeyListener
 - MouseListener
 - EventListener
 - WindowListener

etc..

```
Class abc
{
    public void show()
    {
        System.out.print("hello");
    }
}
Class xyz extends abc ①
{
    abc.method(); ②
    abc obj=new abc(); ③
}
}
```

```
Interface abc
{
    public void show();
}
Class xyz implements abc ①
{
    public void show() //Implement
                        Interface Method
    {
    }
}
}
```



BRABU

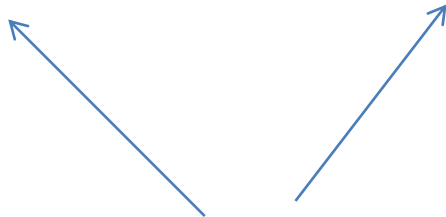
```
Static int reg=0;  
BCA()  
B.ED()  
BBA()
```

LNMU

```
MBA()  
BBA()  
MCA()
```

LNM

```
Public void bca()  
{  
    statement;  
}
```



```
Interface abc
{

}
Interface xyz
{

}
Interface mnp implements abc,xyz
{

}
```

```
Interface abc
{

}
Interface xyz
{

}
Interface mnp extends abc
{

}
```