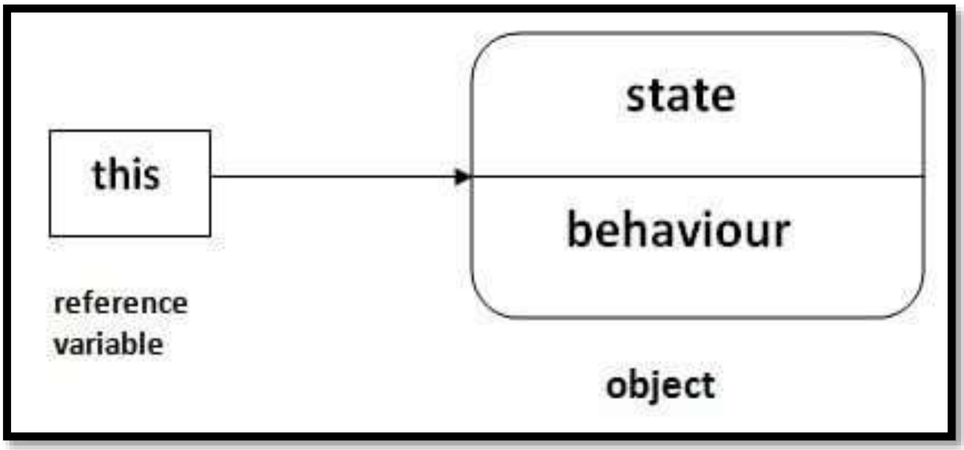
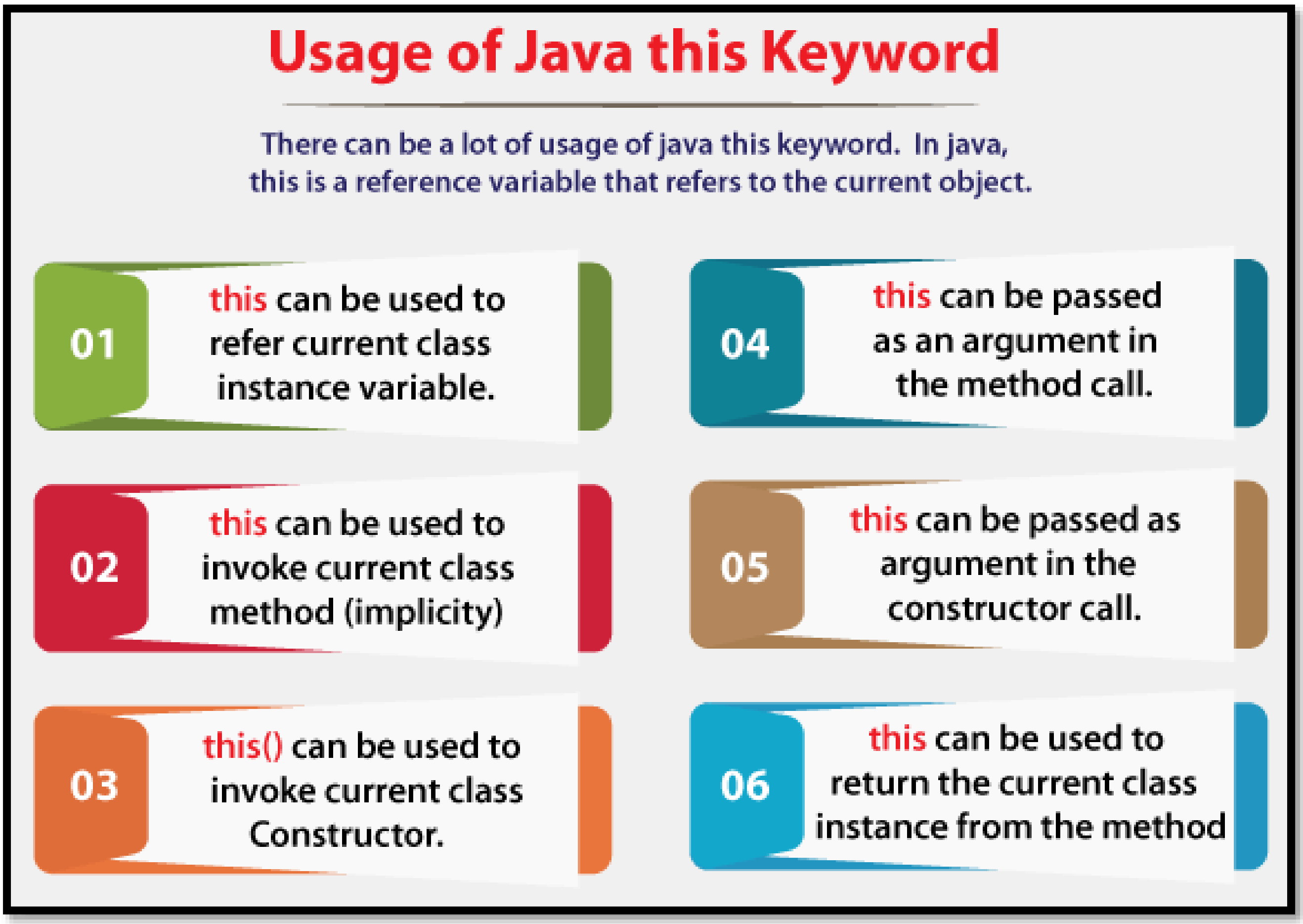
this keyword in Java

There can be a lot of usage of **Java this keyword**. In Java, this is a **reference variable** that refers to the current object.





Usage of Java this Keyword

There can be a lot of usage of java this keyword. In java, this is a reference variable that refers to the current object.

01 this can be used to refer current class instance variable.

02 this can be used to invoke current class method (implicity)

03 this() can be used to invoke current class Constructor.

04 this can be passed as an argument in the method call.

05 this can be passed as argument in the constructor call.

06 this can be used to return the current class instance from the method

1) this: to refer current class instance variable

The this keyword can be used to refer current class instance variable. If there is ambiguity between the instance variables and parameters, this keyword resolves the problem of ambiguity.

Let's understand the problem if we don't use this keyword by the example given below:

```
class Student
{
int rollno;
String name;
float fee;
Student(int rollno,String name,float fee)
{
rollno=rollno;
name=name;
fee=fee;
}
void display()
{
System.out.println(rollno+" "+name+" "+fee);
}
}
class TestThis1
```

```
{
public static void main(String args[])
{
Student s1=new Student(111,"ankit",5000f);
Student s2=new Student(112,"sumit",6000f);
s1.display();
s2.display();
}
}
```

Solution of the above problem by this keyword

```
class Student
{
int rollno;
String name;
float fee;
Student(int rollno,String name,float fee)
{
this.rollno=rollno;
this.name=name;
this.fee=fee;
}
void display()
{
System.out.println(rollno+" "+name+" "+fee);
}
}
class TestThis2
{
public static void main(String args[])
{
Student s1=new Student(111,"ankit",5000f);
Student s2=new Student(112,"sumit",6000f);
s1.display();
s2.display();
}
}
```

Program where this keyword is not required

```
class Student
{
int rollno;
String name;
float fee;
Student(int r,String n,float f)
{
rollno=r;
name=n;
fee=f;
}
void display()
{
System.out.println(rollno+" "+name+" "+fee);
}
}
class TestThis3
{
public static void main(String args[])
{
Student s1=new Student(111,"ankit",5000f);
Student s2=new Student(112,"sumit",6000f);
s1.display();
s2.display();
}
}
```

Real usage of this() constructor call

The this() constructor call should be used to reuse the constructor from the constructor. It maintains the chain between the constructors i.e. it is used for constructor chaining. Let's see the example given below that displays the actual use of this keyword.

```
class Student
{
int rollno;
String name,course;
```

```
float fee;
Student(int rollno,String name,String course)
{
this.rollno=rollno;
this.name=name;
this.course=course;
}
Student(int rollno,String name,String course,float fee)
{
this(rollno,name,course);//reusing constructor
this.fee=fee;
}
void display()
{
System.out.println(rollno+" "+name+" "+course+" "+fee);
}
}
class TestThis7
{
public static void main(String args[])
{
Student s1=new Student(111,"ankit","java");
Student s2=new Student(112,"sumit","java",6000f);
s1.display();
s2.display();

}

}
```