

## Script generated by TTT

Title: groh: profile1 (10.07.2015)

Date: Fri Jul 10 09:15:10 CEST 2015

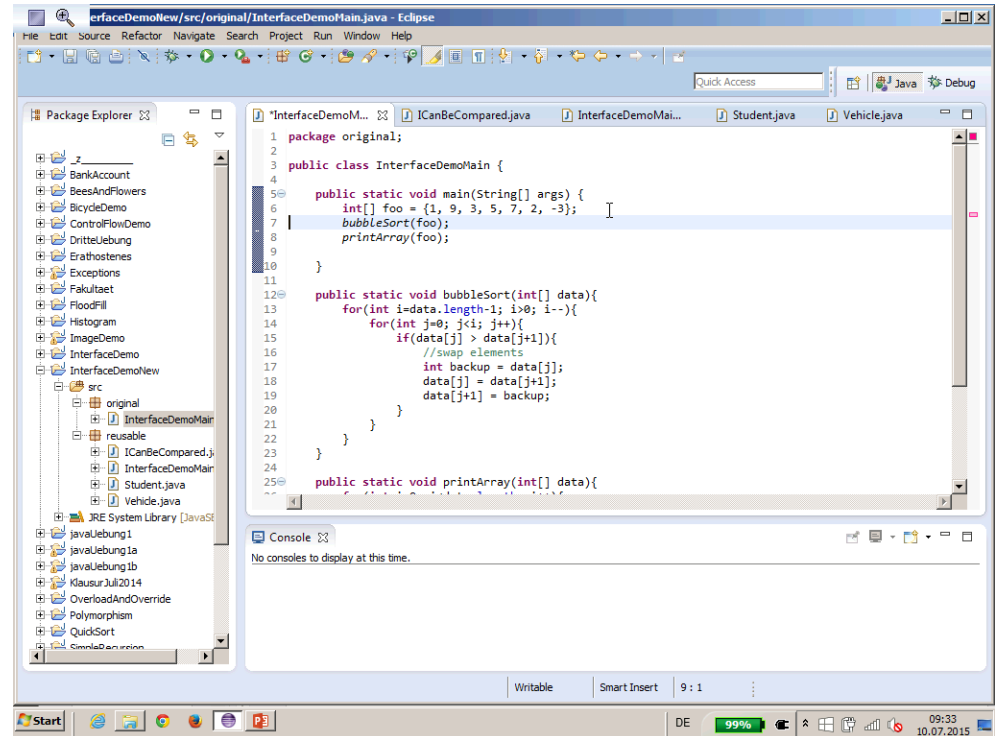
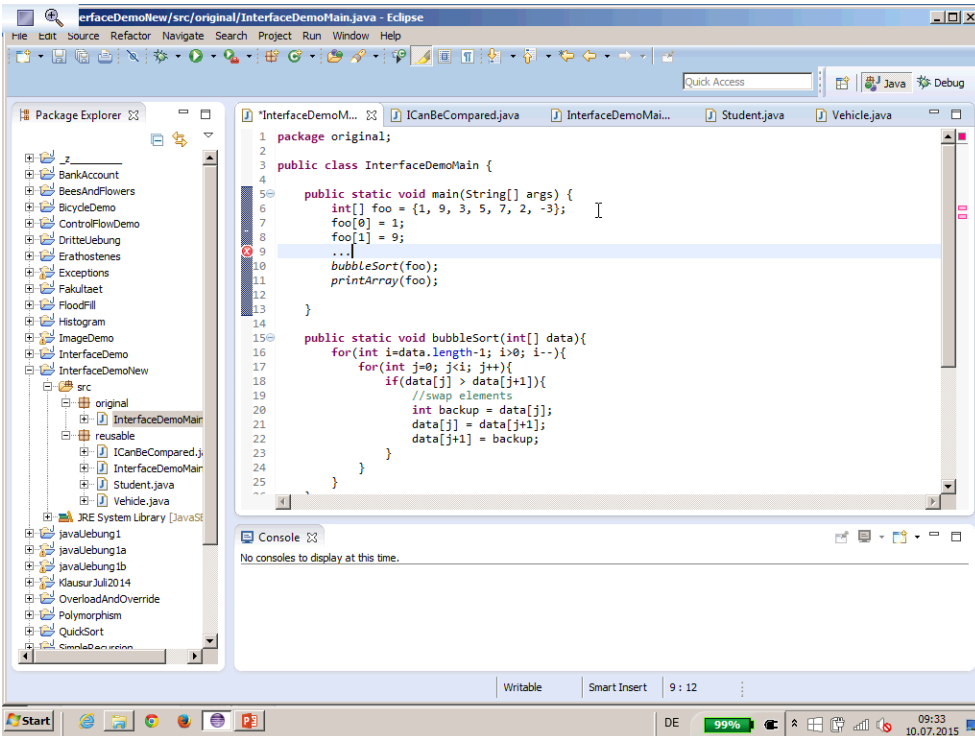
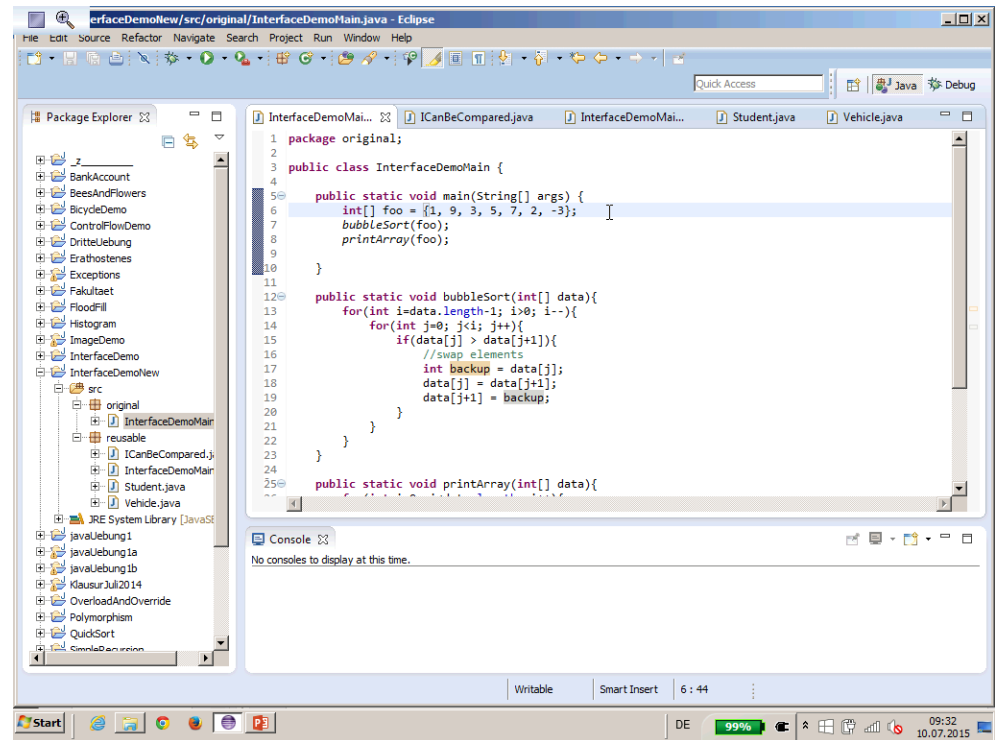
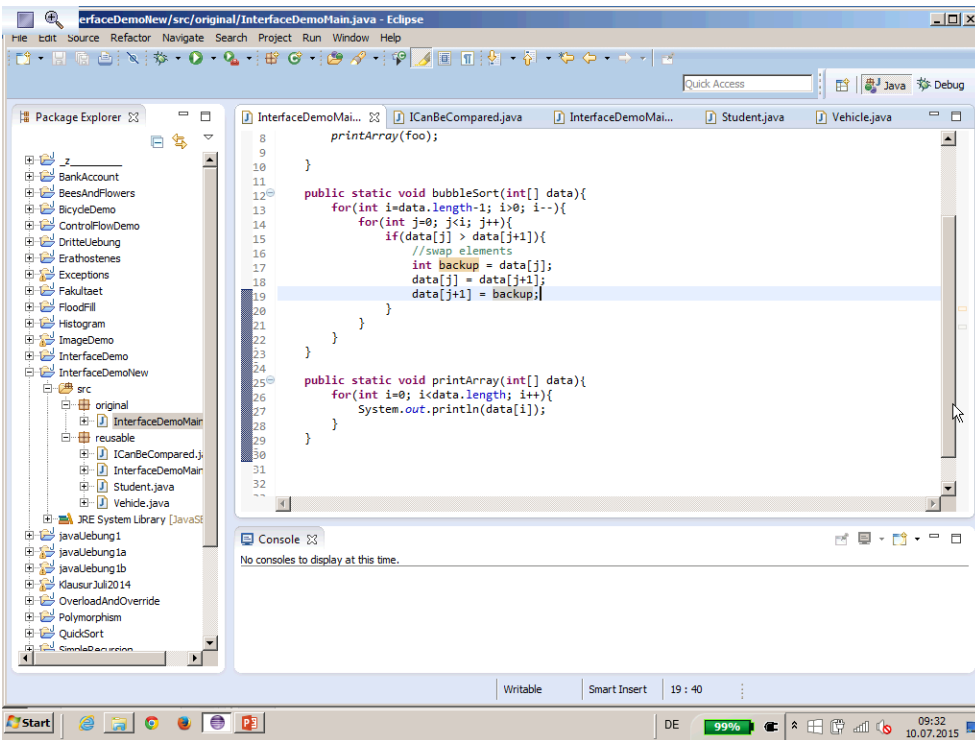
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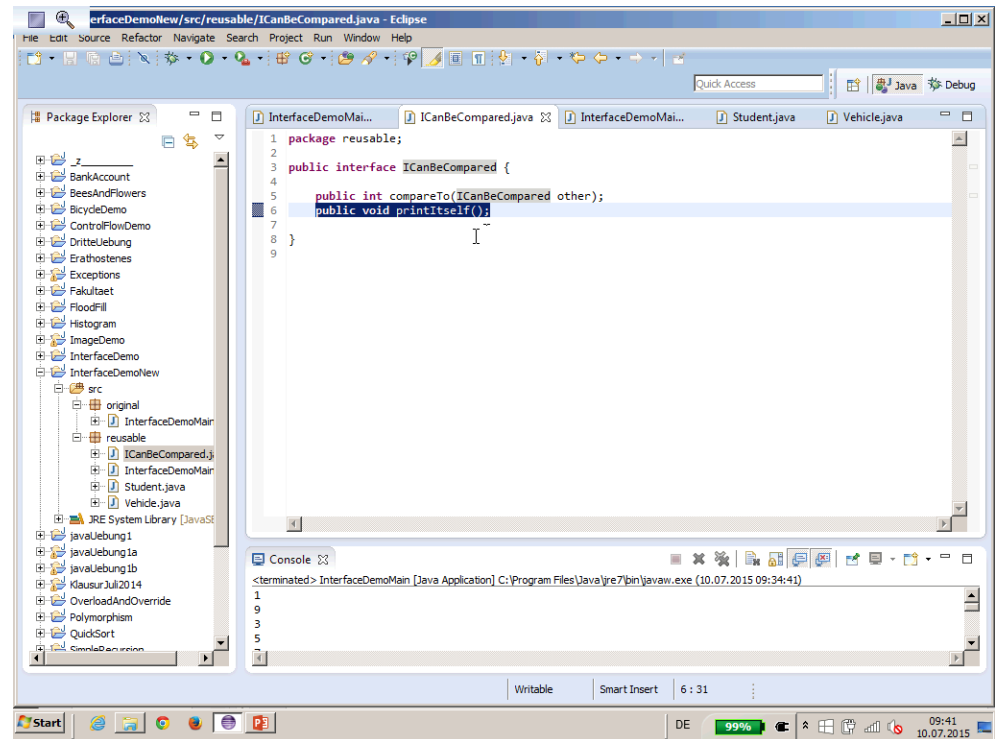
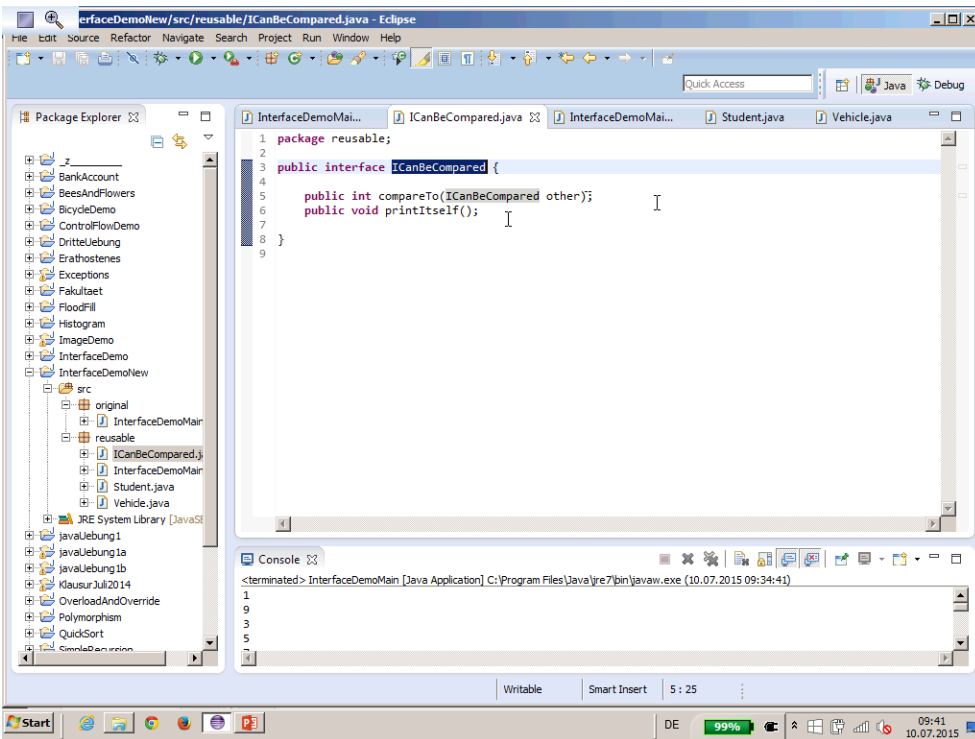
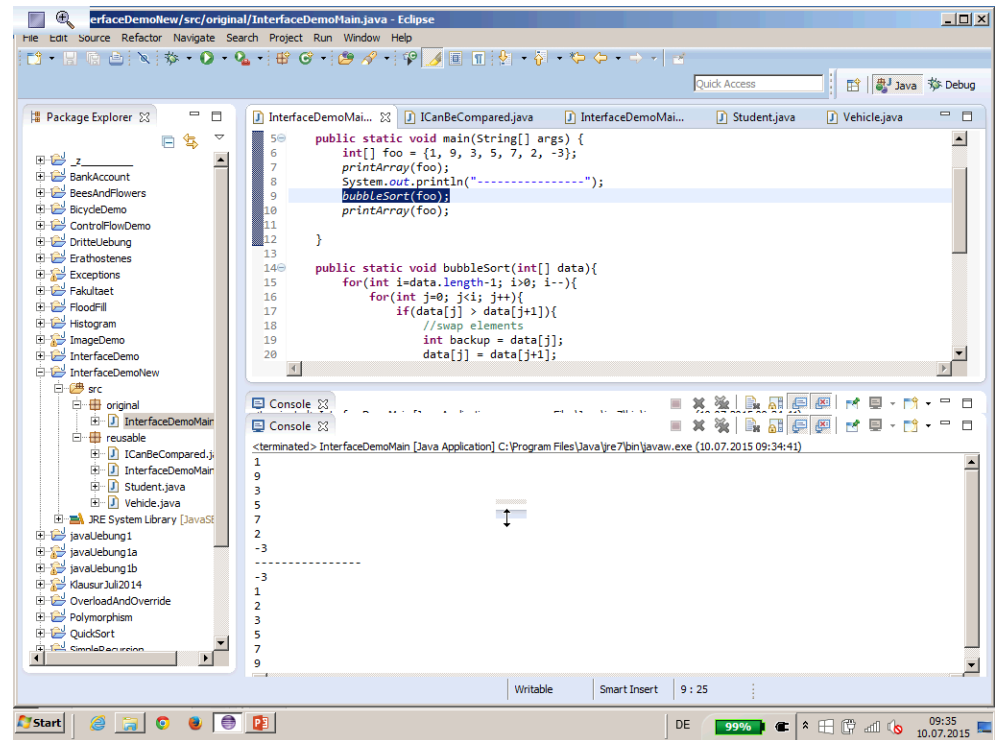
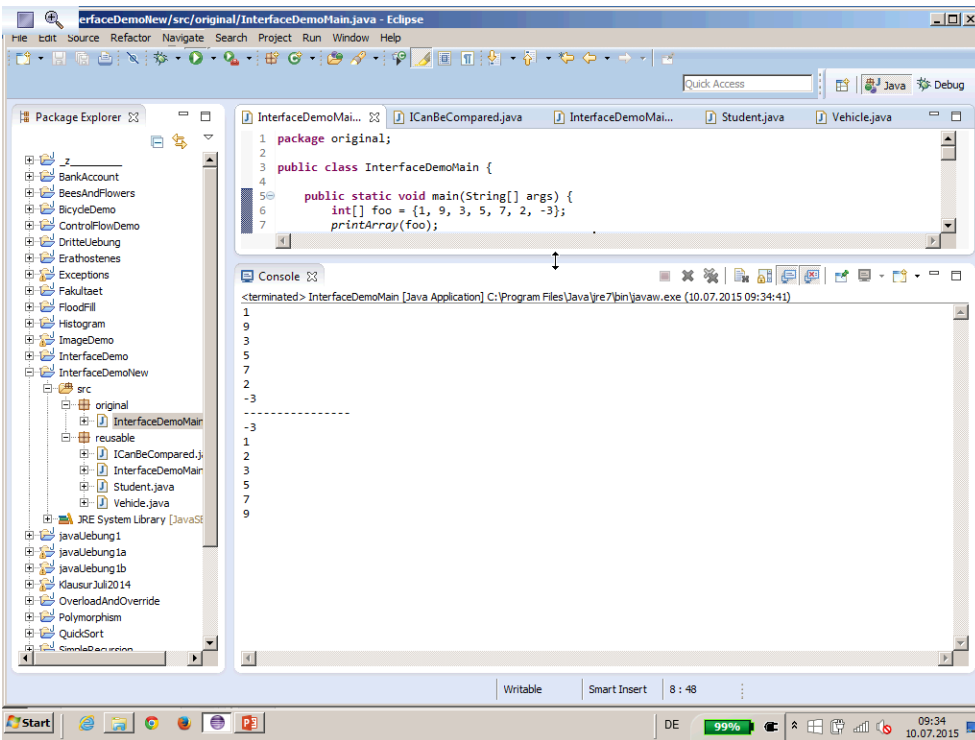
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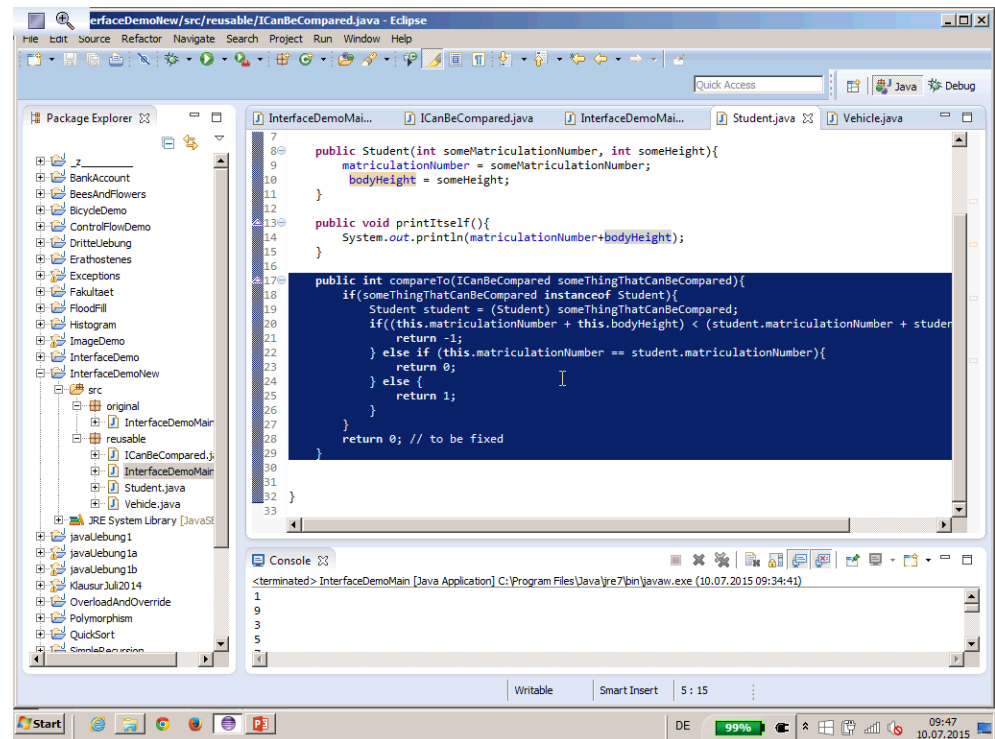
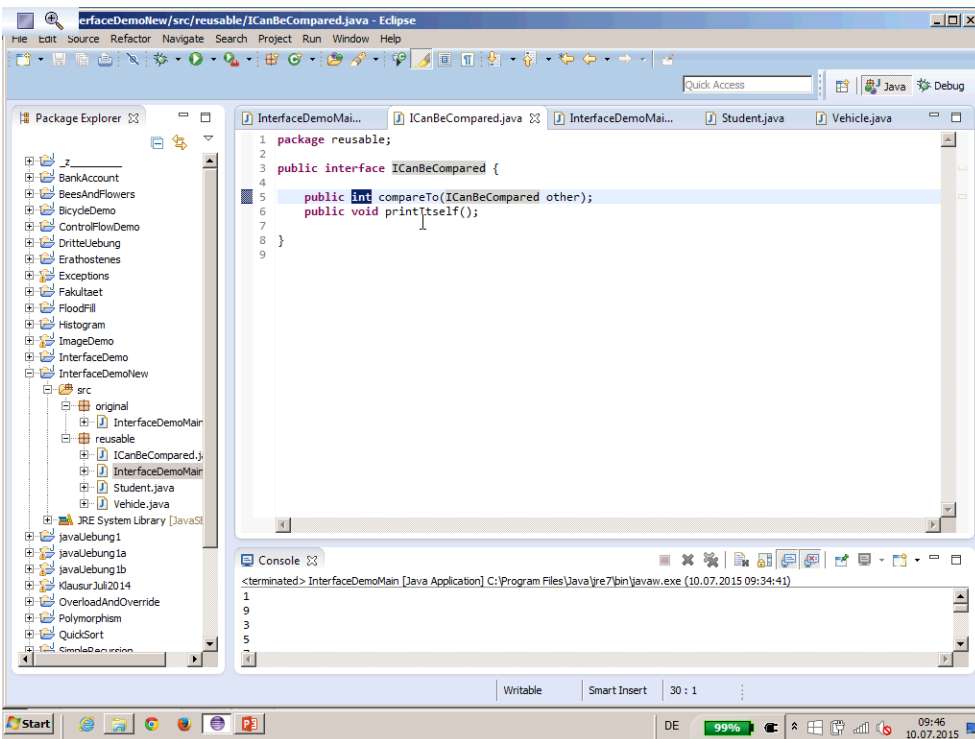
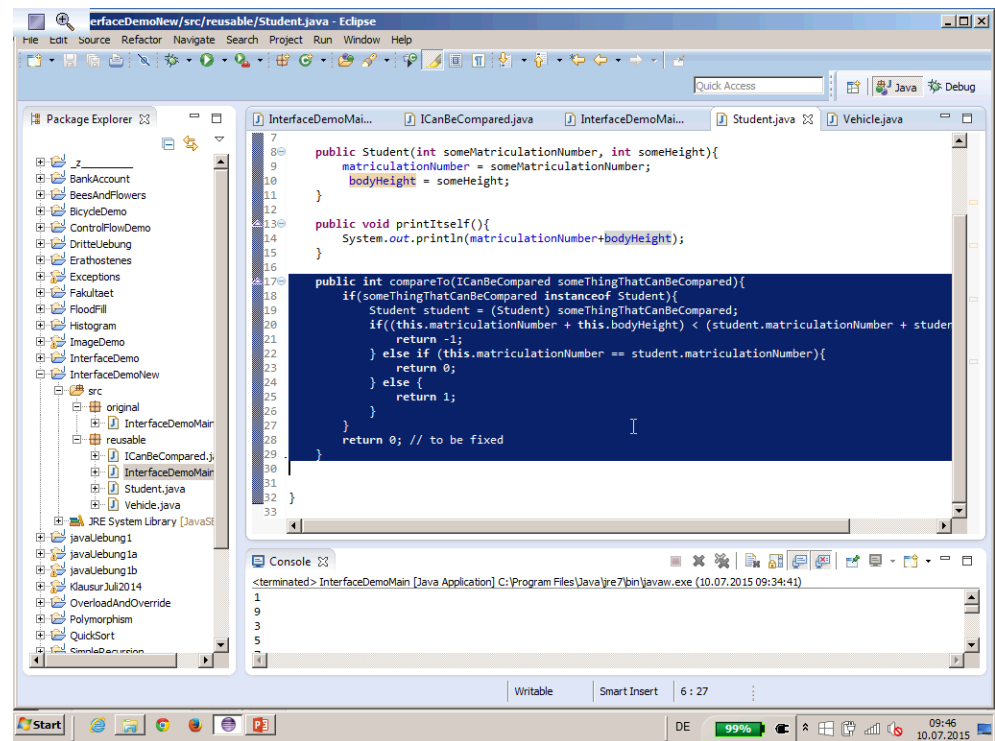
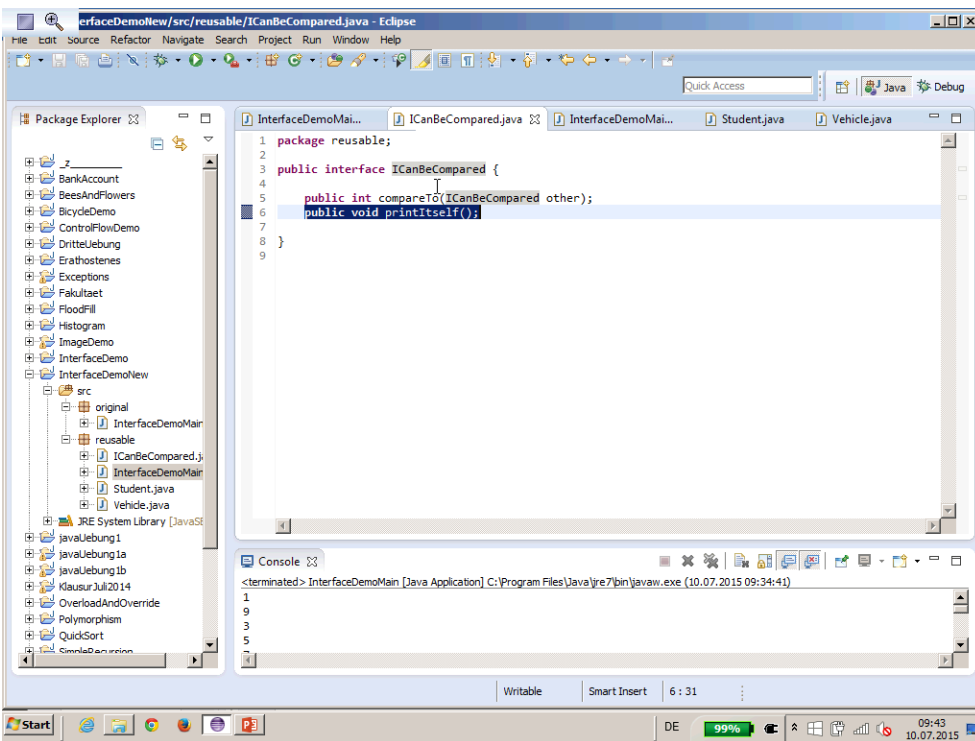
```
1 package original;
2
3 public class InterfaceDemoMain {
4
5     public static void main(String[] args) {
6         int[] foo = {1, 9, 3, 5, 7, 2, -3};
7         bubbleSort(foo);
8         printArray(foo);
9     }
10
11
12     public static void bubbleSort(int[] data){
13         for(int i=data.length-1; i>0; i--){
14             for(int j=0; j<i; j++){
15                 if(data[j] > data[j+1]){
16                     //swap elements
17                     int backup = data[j];
18                     data[j] = data[j+1];
19                     data[j+1] = backup;
20                 }
21             }
22         }
23     }
24
25     public static void printArray(int[] data){
26
27     }
28 }
```

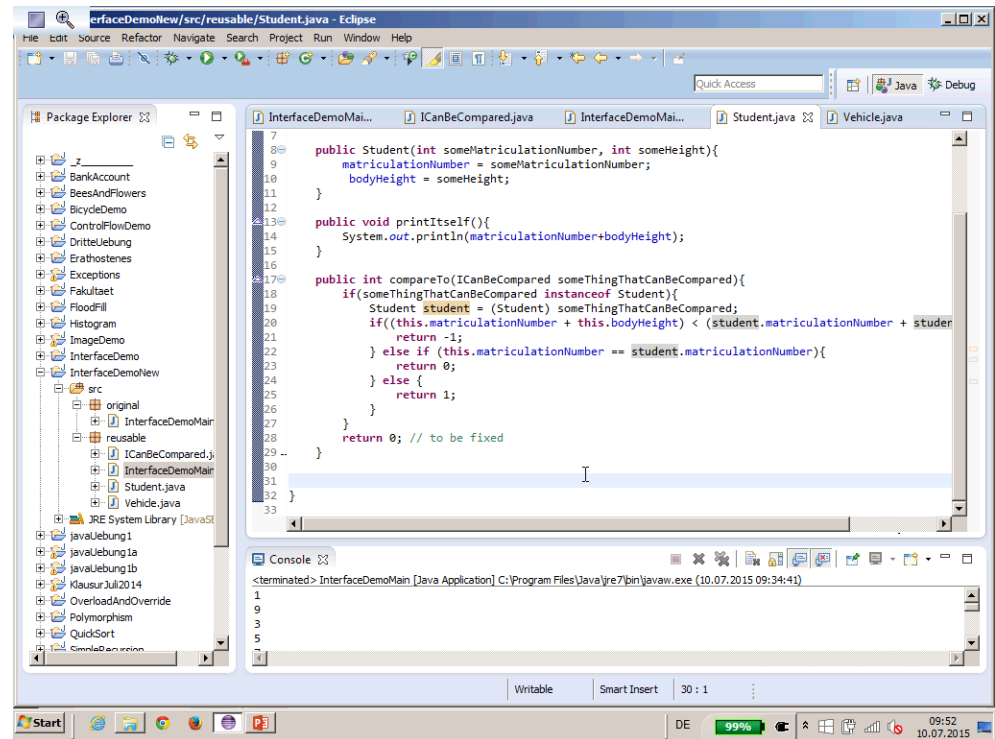
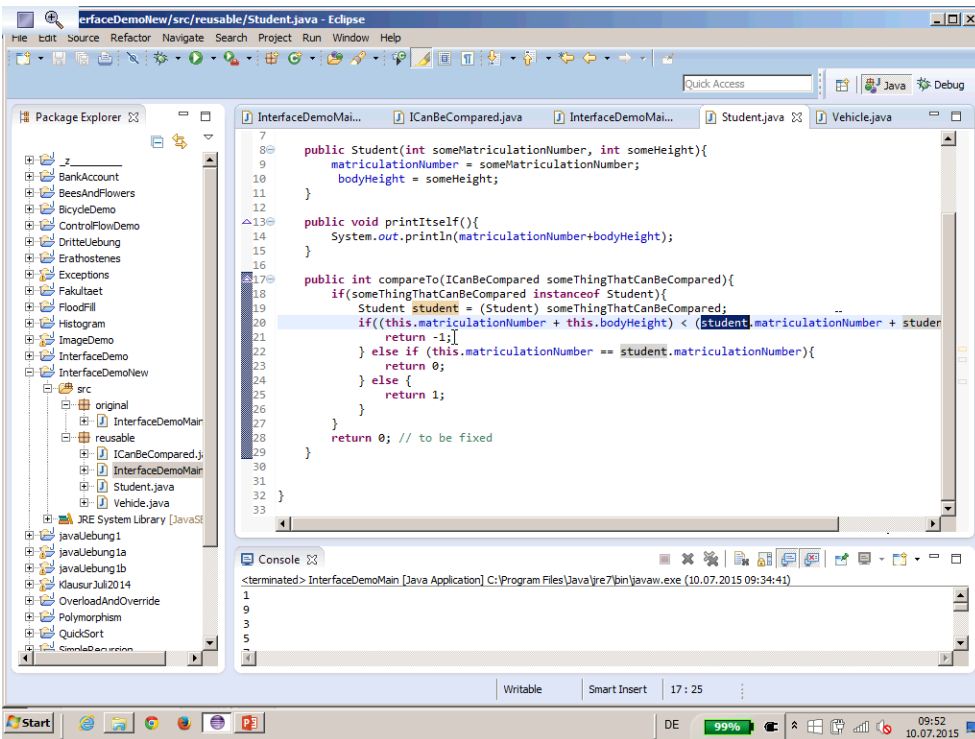
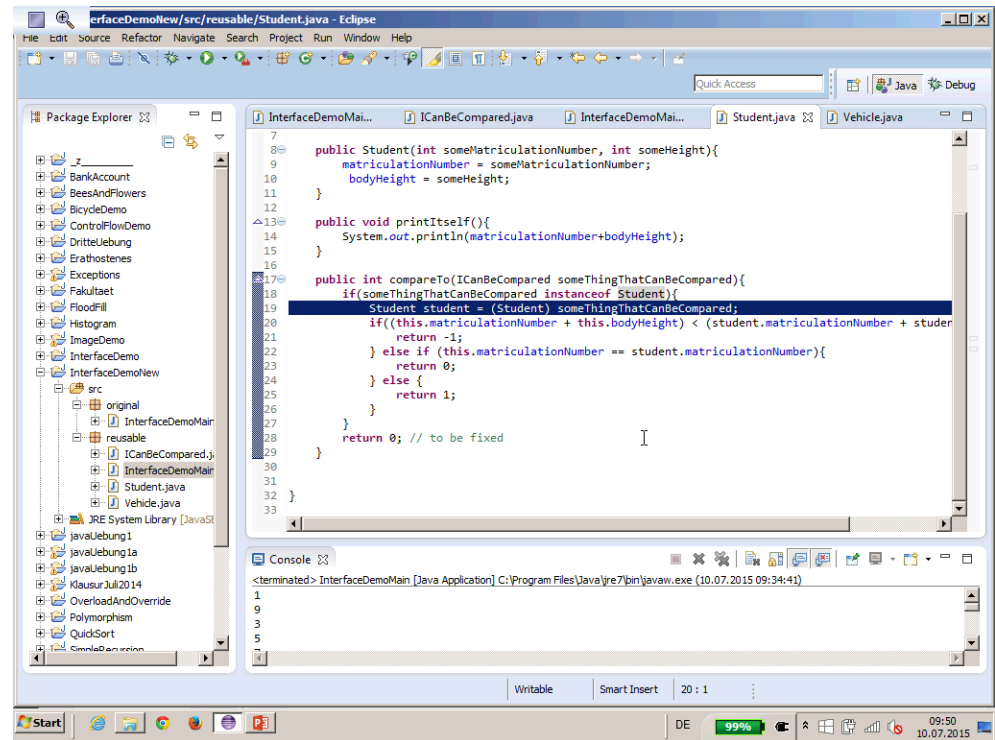
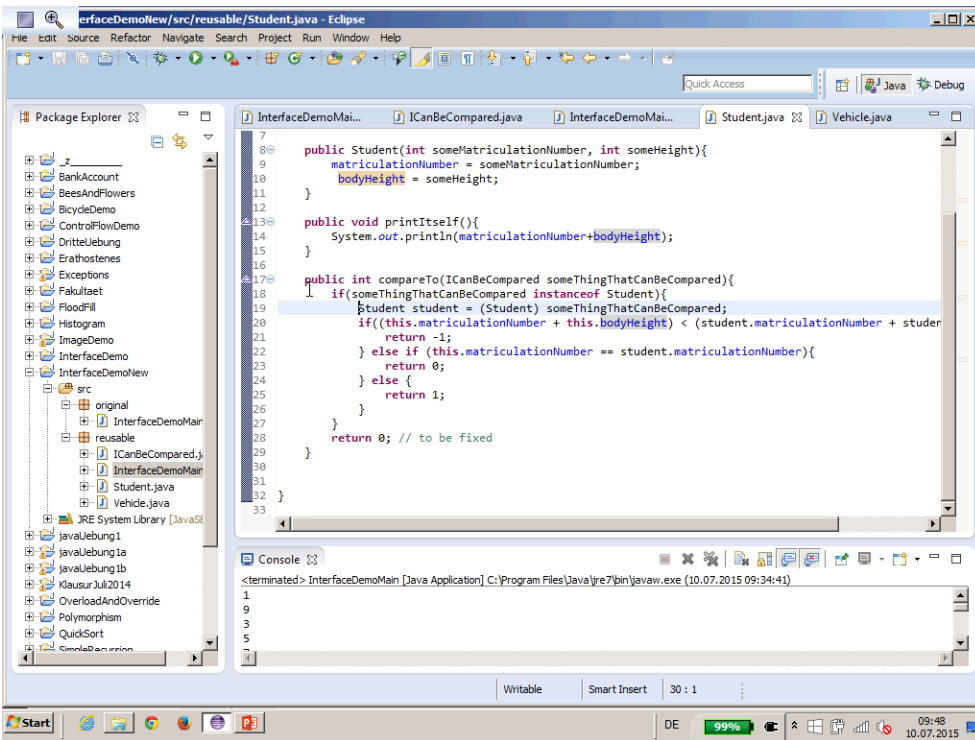
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```









```

1 package reusable;
2
3 public class InterfaceDemoMain {
4
5     public static void main(String[] args) {
6         Vehicle[] vehicles = new Vehicle[50];
7         for(int i = 0; i<vehicles.length; i++){
8             vehicles[i] = new Vehicle((int)(50 * Math.random()));
9         }
10        printArray(vehicles);
11        bubbleSort(vehicles);
12        System.out.println("-----");
13        printArray(vehicles);
14        //
15        Student[] students = {
16            new Student(1234, 184),
17            new Student(1235, 160),
18            new Student(1236, 190)
19        };
20        printArray(students);
21        bubbleSort(students);
22        System.out.println("-----");
23    }
24 }

```

Console Output:

```

1418
1395
1426
-----
1395
1418
1426

```

```

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3 public class InterfaceDemoMain {
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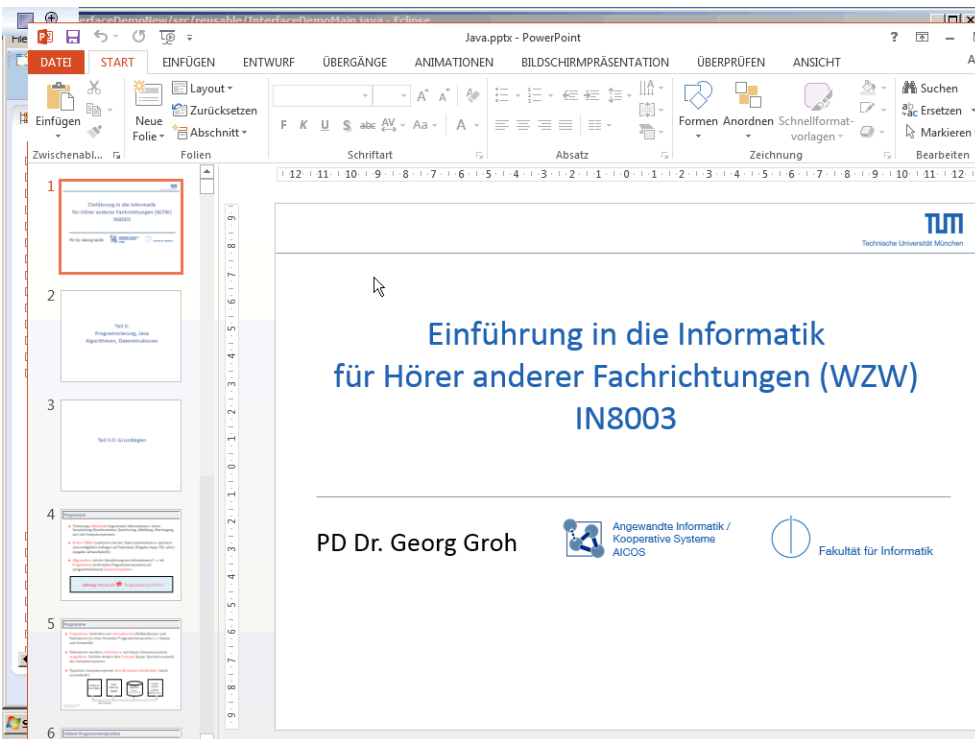
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Console Output:

```

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1418
1426
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1395
1418
1426

```



## Rekursion

- **Rekursion:**
  - Definiere eine Funktion **durch sich selbst** bzw.
  - formuliere **Lösung** eines Problems durch **Rückgriff** auf die **Lösung selbst**: Gebe Lösung für **Basisfälle** an und gib **Regeln** an, wie sich allg. Problem in Richtung der Basisfälle **aufteilen** lässt.
  - d.h. bspw. durch eine **Methode**, die sich **selbst wieder aufruft**

Bsp:

- **Fakultät** 
$$n! = \begin{cases} 1 & \text{if } n = 0, \\ (n - 1)! \cdot n & \text{if } n > 0. \end{cases}$$

- **Fibonacci** 
$$f(n) = \begin{cases} 1 & \text{if } n = 1, \\ 1 & \text{if } n = 2, \\ f(n - 1) + f(n - 2) & \text{if } n > 2. \end{cases}$$

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**Fakultät**

$$n! = \begin{cases} 1 & \text{if } n = 0, \\ (n - 1)! \cdot n & \text{if } n > 0. \end{cases}$$



```
long factorial(int n) {
    long temp;
    if (n == 0) {
        return 1;
    } else {
        temp = factorial(n-1);
        return n * temp;
    }
}
```

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# Call Stack

Für jeden Methodenaufruf (auch Klassenmethoden oder nicht rekursive Methodenaufrufe) werden lokale Variablen + Parameter + Rücksprungadresse („von wem (von wo aus) wurde die Methode aufgerufen?“) auf **Call-Stack** gespeichert

```
public class someClass {
    int a;
    int b;

    int someMethodOne(int paramOne1, int paramOne2){
        int localOne = 5;
        int result = someMethodTwo(17) + localOne;
        return result;
    }

    int someMethodTwo(int paramTwo){
        int localTwo = 8;
        return paramTwo * localTwo;
    }
}
```

```
SomeClass someObject = new SomeClass();
int bbb = someObject.someMethodOne(12, 34);
```



...	...	...
2345	someObject	<2346>
2346	someObject.a	
2347	someObject.b	
...	...	...
5467	int result =	someMethodTwo(17) +
	localOne;	
...	...	...
5899	int bbb =	someObject.someMethodOne(
	12, 34);	
...	...	...
6000	(Rücksprung-Adresse)	<5467>
6001	(Aufruf-Objekt)	<2346>
6002	paramTwo	17
6003	localTwo	8
6004	(Rücksprung-Adresse)	<5899>
6005	(Aufruf-Objekt)	<...>
6006	paramOne1	12
6007	paramOne2	34
6008	localOne	5
...	...	...

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## Call Stack

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    int a;
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```
    int someMethodOne(int paramOne1, int paramOne2){
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    int someMethodTwo(int paramTwo){
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}
```

```
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SomeClass someObject = new SomeClass();
int bbb = someObject.someMethodOne(12, 34);
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2345	someObject	<2346>
2346	someObject.a	
2347	someObject.b	
...	...	...

5467	int result =	someMethodTwo(17) +	localOne;
...	...	...	...
5899	int bbb =	someObject.someMethodOne(	12, 34);
...	...	...	...

6000	(Rücksprung-Adresse)	<5467>	
6001	(Aufruf-Objekt)	<2346>	
6002	paramTwo	17	
6003	localTwo	8	
6004	(Rücksprung-Adresse)	<5899>	
6005	(Aufruf-Objekt)	<...>	
6006	paramOne1	12	
6007	paramOne2	34	
6008	localOne	5	149
...	...	...	...

## Call Stack

Für jeden Methodenaufruf (auch Klassenmethoden oder nicht rekursive Methodenaufrufe) werden lokale Variablen + Parameter + Rücksprungadresse („von wem (von wo aus) wurde die Methode aufgerufen?“) auf **Call-Stack** gespeichert

```
public class someClass {
```

```
    int a;
    int b;
```

```
    int someMethodOne(int paramOne1, int paramOne2){
        int localOne = 5;
        int result = someMethodTwo(17) + localOne;
        return result;
    }
```

```
    int someMethodTwo(int paramTwo){
        int localTwo = 8;
        return paramTwo * localTwo;
    }
}
```

```
...
SomeClass someObject = new SomeClass();
int bbb = someObject.someMethodOne(12, 34);
...
```

Speicherbereich für Objekte: „Heap“

Einfügende des Call Stacks →

„Call Stack“

...	...	...
2345	someObject	<2346>
2346	someObject.a	
2347	someObject.b	
...	...	...

5467	int result =	someMethodTwo(17) +	localOne;
...	...	...	...
5899	int bbb =	someObject.someMethodOne(	12, 34);
...	...	...	...

6000	(Rücksprung-Adresse)	<5467>	
6001	(Aufruf-Objekt)	<2346>	
6002	paramTwo	17	
6003	localTwo	8	
6004	(Rücksprung-Adresse)	<5899>	
6005	(Aufruf-Objekt)	<...>	
6006	paramOne1	12	
6007	paramOne2	34	
6008	localOne	5	150
...	...	...	...

## Rekursive Methodenaufrufe – Call Stack

```
long factorial(int n) {
    long temp;
    if (n == 0) {
        return 1;
    } else {
        temp = factorial(n-1);
        return n * temp;
    }
}
```

```
...
int ccc = factorial(3);
...
```

n	3	
temp	0	
ccc	...	
...	...	
...	...	154
...	...	...

## Rekursive Methodenaufrufe – Call Stack

```
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    long temp;
    if (n == 0) {
        return 1;
    } else {
        temp = factorial(n-1);
        return n * temp;
    }
}
```

```
...
int ccc = factorial(3);
...
```

n	2	
temp	0	
n	3	
temp	0	
ccc	...	
...	...	
...	...	157
...	...	...



## Rekursive Methodenaufrufe – Call Stack

```
long factorial(int n) {
    long temp;
    if (n == 0) {
        return 1;
    } else {
        temp = factorial(n-1);
        return n * temp;
    }
}
```

```
...
int ccc = factorial(3);
...
```

n	1
temp	0
n	2
temp	0
n	3
temp	0
ccc	...
...	...
...	159
...	...



## Rekursive Methodenaufrufe – Call Stack

```
long factorial(int n) {
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        return n * temp;
    }
}
```

```
...
int ccc = factorial(3);
...
```

n	0
temp	0
n	1
temp	0
n	2
temp	0
n	3
temp	0
ccc	...
...	...
...	161
...	...



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```
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n	0
temp	0
n	1
temp	0
n	2
temp	0
n	3
temp	0
ccc	...
...	...
...	162
...	...



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}
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```
...
int ccc = factorial(3);
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```

n	3
temp	2
ccc	...
...	...
...	167
...	...



## Rekursive Methodenaufrufe – Call Stack

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    long temp;
    if (n == 0) {
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        return n * temp;
    }
}
```

```
...
int ccc = factorial(3);
...
```

n	3
temp	2
ccc	...
...	...
...	168
...	...

## Java Klassenbibliothek

Java Klassenbibliothek: <http://java.sun.com/javase/7/docs/api/>  
(Äquivalentes gibt es auch für andere Sprachen (bspw. .NET mit C#))

Package	Description
java.applet	Provides the classes necessary to create an applet and the classes an applet uses to communicate with its applet context.
java.awt	Contains all of the classes for creating user interfaces and for painting graphics and images.
java.awt.color	Provides classes for color spaces.
java.awt.datatransfer	Provides interfaces and classes for transferring data between and within applications.
java.awt.dnd	Drag and Drop is a direct manipulation gesture found in many Graphical User Interface systems that provides a mechanism to transfer information between two entities logically associated with presentation elements in the GUI.
java.awt.event	Provides interfaces and classes for dealing with different types of events fired by AWT components.
java.awt.font	Provides classes and interface relating to fonts.
java.awt.geom	Provides the Java 2D classes for defining and performing operations on objects related to two-dimensional geometry.
java.awt.im	Provides classes and interfaces for the input method framework.
java.awt.im.spi	Provides interfaces that enable the development of input methods that can be used with any Java runtime environment.
java.awt.image	Provides classes for creating and modifying images.
java.awt.image.renderable	Provides classes and interfaces for producing rendering-independent images.
java.awt.print	Provides classes and interfaces for a general printing API.
java.beans	Contains classes related to developing beans – components based on the JavaBeans™ architecture.
java.beans.beancontext	Provides classes and interfaces relating to bean context.
java.io	Provides for system input and output through data streams, serialization and the file system.
java.lang	Provides classes that are fundamental to the design of the Java programming language.

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## Packages

- Java Klassen sind in Hierarchie von **packages** organisiert

```
java.lang.String
java.net.URLConnection
java.util.Collection
javax.xml.parsers.SAXParser
org.w3c.dom.events.DocumentEvent
```

- Klassen die man nutzen möchte, muss man **importieren**.  
Alle Klassen aus java.lang werden automatisch importiert

```
import java.net.URLConnection;
import java.util.Collection;
import some.other.package.*; // * means all classes

class SomeClass{
    ...
}
```

Package	Description
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## Packages

- Java Klassen sind in Hierarchie von **packages** organisiert

```
java.lang.String
java.net.URLConnection
java.util.Collection
javax.xml.parsers.SAXParser
org.w3c.dom.events.DocumentEvent
```

- Klassen die man nutzen möchte, muss man **importieren**.  
Alle Klassen aus java.lang werden automatisch importiert

```
import java.net.URLConnection;
import java.util.Collection;
import some.other.package.*;    // * means all classes

class SomeClass{
    ...
}
```



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## Generics

- Manche Klassen kann man mit anderen Klassen **parametrisieren**
- Typisches **Beispiel: Datenstrukturen**
- **Vorteil:** Algorithmen und Datenstrukturen können **generisch** implementiert und genutzt werden.

ohne Generics:

```
Vector nonGenericVector = new Vector();
nonGenericVector.add( 1234 );
nonGenericVector.add( "Hello world" );
Object typeUnknown = nonGenericVector.get(0);
```

mit Generics:

```
Vector<Bicycle> bicycles = new Vector<Bicycle>();
bicycles.add( new Bicycle() );
bicycles.add( 123 ); // Compile time error!
Bicycle typeKnown = bicycles.get(0);
```



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174

## Wrapper Classes

- Für **jeden primitiven Typ** gibt es eine entsprechende **Wrapper-Klasse**

```
java.lang.Short
java.lang.Integer
java.lang.Long
java.lang.Float
java.lang.Double
java.lang.Boolean
...
```

- Zur Bequemlichkeit im Umgang mit diesen Wrapper Klassen gibt es **Boxing**:

statt:

```
Integer someInteger = new Integer(723);
```

kann man schreiben:

```
Integer someInteger = 723;
```



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Integer someInteger = 723;
```

- Bsp.-Problem:** Ein Bild aus dem Web laden und in einem Fenster darstellen

- Wie löse ich das Problem?

1. Googlen
2. Java Tutorial zu Rate ziehen
3. Entsprechende Klassen, Methoden, Attribute in API-Doc nachschlagen
4. Programm schreiben, testen
5. Wenns nicht klappt : Gehe zu (1)



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The Java™ Tutorials

Working with Images

Reading/Loading an Image

Reading/Loading an Image

When you think of digital images, you probably think of sampled image formats such as the JPEG image format used in digital photography, or GIF images commonly used on web pages. All programs that can use these images must first convert them from that external format into an internal format.

Java 2D™ supports loading these external image formats into its `BufferedImage` format using its Image I/O API which is in the `javax.imageio` package. Image I/O has built-in support for GIF, PNG, JPEG, BMP, and WBMP. Image I/O is also extensible so that developers or administrators can "plug-in" support for additional formats. For example, plug-ins for TIFF and JPEG 2000 are separately available.

To load an image from a specific file use the following code:

```
BufferedImage img = null;
try {
    img = ImageIO.read(new File("strawberry.jpg"));
} catch (IOException e) {
}
```

Image I/O recognises the contents of the file as a JPEG format image, and decodes it into a `BufferedImage` which can be directly used by Java 2D.

`LoadImageApp.java` shows how to display this image.

If the code is running in an applet, then its just as easy to obtain the image from the applet codebase :

```
try {
    URL url = new URL(getCodeBase(),
        "strawberry.jpg");
    img = ImageIO.read(url);
} catch (IOException e) {
}
```

The `getCodeBase` method used in this example returns the URL of the directory containing this applet.

The following example shows how to use the `getCodeBase` method to load the `strawberry.jpg` file.

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URL (Java Platform SE 6)

http://ioo.com/HelloWorld/ and http://ioo.com/Hello2UWorld

would be considered not equal to each other.

Note, the `URL` class does perform escaping of its component fields in certain circumstances. The recommended way to manage the encoding and decoding of URLs is to use `URI`, and to convert between these two classes using `toURI()` and `toURL()`.

The `URLEncoder` and `URLDecoder` classes can also be used, but only for HTML form encoding, which is not the same as the encoding scheme defined in RFC2396.

Since: JDK1.0

See Also: [Serialized Form](#)

**Constructor Summary**

<code>URL(String spec)</code>	Creates a URL object from the <code>String</code> representation.
<code>URL(String protocol, String host, int port, String file)</code>	Creates a URL object from the specified protocol, host, port number, and file.
<code>URL(String protocol, String host, int port, String file, URLStreamHandler handler)</code>	Creates a URL object from the specified protocol, host, port number, file, and handler.
<code>URL(String protocol, String host, String file)</code>	Creates a URL from the specified protocol name, host name, and file name.
<code>URL(URL context, String spec)</code>	Creates a URL by parsing the given spec within a specified context.
<code>URL(URL context, String spec, URLStreamHandler handler)</code>	Creates a URL by parsing the given spec with the specified handler within a specified context.

**Method Summary**

<code>boolean equals(Object obj)</code>	Compares this URL for equality with another object.
<code>String getAuthority()</code>	Gets the authority part of this URL.
<code>Object getContent()</code>	Gets the contents of this URL.

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URL (Java Platform SE 6)

http://docs.oracle.com/javase/6/docs/api/java/net/URL.html

http://100.com/hello world/ and http://100.com/hello?world

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Reading/Loading an Image (The Java™ Tutorials > 2D Graphics > Working with Images)

http://docs.oracle.com/javase/tutorial/2d/images/loadimage.html

java load picture from url and display

The Java™ Tutorials

Working with Images

Reading/Loading an Image

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### Reading/Loading an Image

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The following example shows how to use the `getCodeBase` method to load the `strawberry.jpg` file.

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The following example shows how to use the `getCodeBase` method to load the `strawberry.jpg` file.



**Note:**

If you don't see the applet running, you need to install [release 6 \(or later\) of the Java SE Development Kit \(JDK\)](#).

`LoadImageApp.java` contains the complete code for this example and this applet requires the `strawberry.jpg` image file.

In addition to reading from files or URLs, Image I/O can read from other sources, such as an `InputStream`. `ImageIO.read()` is the most straightforward convenience API for most applications, but the `javax.imageio.ImageIO` class provides many more static methods for more advanced usages of the Image I/O API. The collection of methods on this class represent just a subset of the rich set of APIs for discovering information about the images and for controlling the image decoding (reading) process.

We will explore some of the other capabilities of Image I/O later in the [Writing/Saving an Image](#) section.

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What's an easy way to display an Image in Java/Scala? - Stack Overflow

http://stackoverflow.com/questions/9027257/whats-an-easy-way-to-display-an-image-in

50.4k • 4 = 20 • 54

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91% accept rate

scala × 9773

asked 5 months ago

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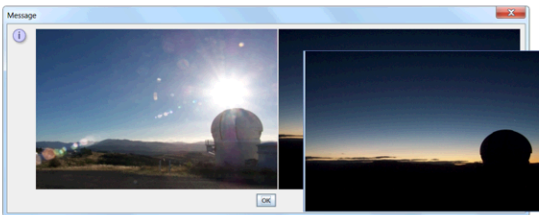
2 Answers

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OptionPane.showMessageDialog(parent, new JLabel(new ImageIcon(theImage)));

Of course, if you have an URL for the image (or can form one from a File path), it can also be displayed as a tool-tip using HTML.



See Show full Image when hover over thumbnail for source.

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edited Jan 28 at 2:18

answered Jan 27 at 0:06

Andrew Thompson

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Show full Image when hover over thumbnail as Popup/Overlay

Related

How can I display a bitmap image in

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JOptionPane (Java Platform SE 6)

Overview Package **Class** Use Tree Deprecated Index Help

java.swing  
**Class JOptionPane**

All Implemented Interfaces:  
 ImageObserver, MenuContainer, Serializable, Accessible

public class JOptionPane  
 extends JComponent  
 implements Accessible

JOptionPane makes it easy to pop up a standard dialog box that prompts users for a value or informs them of something. For information about using JOptionPane, see [How to Make Dialogs](#), a section in *The Java Tutorial*.

While the JOptionPane class may appear complex because of the large number of methods, almost all uses of this class are one-line calls to one of the static showxxxDialog methods shown below:

Method Name	Description
showConfirmDialog	Asks a confirming question, like yes/no/cancel.
showInputDialog	Prompt for some input.
showMessageDialog	Tell the user about something that has happened.
showOptionDialog	The Grand Unification of the above three.

Each of these methods also comes in a showInternalxxx flavor, which uses an internal frame to hold the dialog box (see [JInternalFrame](#)). Multiple convenience methods have also been defined -- overloaded versions of the basic methods that use different parameter lists.

All dialogs are modal. Each showxxxDialog method blocks the caller until the user's interaction is complete.

The basic appearance of one of these dialog boxes is generally similar to the picture at the right, although the various look-and-feels are

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JOptionPane (Java Platform SE 6)

showMessageDialog

```
public static void showMessageDialog(Component parentComponent,
                                   Object message)
    throws HeadlessException
```

Brings up an information-message dialog titled "Message".

**Parameters:**  
 parentComponent - determines the Frame in which the dialog is displayed; if null, or if the parentComponent has no Frame, a default Frame is used  
 message - the object to display

**Throws:**  
 HeadlessException - if GraphicsEnvironment.isHeadless returns true

**See Also:**  
 GraphicsEnvironment.isHeadless()

---

showMessageDialog

```
public static void showMessageDialog(Component parentComponent,
                                   String title,
                                   Object message,
                                   int messageType)
    throws HeadlessException
```

Brings up a dialog that displays a message using a default icon determined by the messageType parameter.

**Parameters:**  
 parentComponent - determines the Frame in which the dialog is displayed; if null, or if the parentComponent has no Frame, a default Frame is used  
 message - the object to display  
 title - the title string for the dialog  
 messageType - the type of message to be displayed: ERROR\_MESSAGE, INFORMATION\_MESSAGE, WARNING\_MESSAGE, QUESTION\_MESSAGE, or PLAIN\_MESSAGE

**Throws:**  
 HeadlessException - if GraphicsEnvironment.isHeadless returns true

**See Also:**  
 GraphicsEnvironment.isHeadless()

showMessageDialog

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JOptionPane (Java Platform SE 6)

showMessageDialog

All dialogs are modal. Each showxxxDialog method blocks the caller until the user's interaction is complete.

The basic appearance of one of these dialog boxes is generally similar to the picture at the right, although the various look-and-feels are ultimately responsible for the final result. In particular, the look-and-feels will adjust the layout to accommodate the option pane's componentOrientation property.

message

icon

input value

option buttons

**Parameters:**  
 The parameters to these methods follow consistent patterns:

**parentComponent**  
 Defines the component that is to be the parent of this dialog box. It is used in two ways: the frame that contains it is used as the frame parent for the dialog box, and its screen coordinates are used in the placement of the dialog box. In general, the dialog box is placed just below the component. This parameter may be null, in which case a default frame is used as the parent, and the dialog will be centered on the screen (depending on the L&F).

**message**  
 A descriptive message to be placed in the dialog box. In the most common usage, message is just a string or string constant. However, the type of this parameter is actually object. Its interpretation depends on its type:

**Object[]**  
 An array of objects is interpreted as a series of messages (one per object) arranged in a vertical stack. The interpretation is recursive -- each object in the array is interpreted according to its type.

**Component**  
 The component is displayed in the dialog.

**Icon**  
 The icon is wrapped in a JLabel and displayed in the dialog.

**others**  
 The object is converted to a string by calling its toString method. The result is wrapped in a JLabel and displayed.

**messageType**  
 Defines the style of the message. The Look and Feel manager may lay out the dialog differently depending on this value, and will often provide a default icon. The possible values are:

- ERROR\_MESSAGE
- INFORMATION\_MESSAGE
- WARNING\_MESSAGE
- QUESTION\_MESSAGE
- PLAIN\_MESSAGE

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Java - ImageDemo/src/ImageDemo.java - Eclipse

```
import java.awt.image.BufferedImage;
import java.io.IOException;
import java.net.URL;

import javax.imageio.ImageIO;
import javax.swing.ImageIcon;
import javax.swing.JLabel;
import javax.swing.JOptionPane;

public class ImageDemo {

    public static void main(String[] args) {
        try {
            URL url = new URL("http://www.google.com/intl/en_ALL/images/logos/images_logo_lg.gif");
            BufferedImage image = ImageIO.read(url);
            JOptionPane.showMessageDialog(null, new JLabel(new ImageIcon(image)));
        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}
```

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ImageIcon (Java Platform SE 6)

protected class **ImageIcon.AccessibleImageIcon**  
This class implements accessibility support for the ImageIcon class.

### Field Summary

protected static	<a href="#">Component</a>	component
protected static	<a href="#">MediaTracker</a>	tracker

### Constructor Summary

**ImageIcon()**  
Creates an uninitialized image icon.

**ImageIcon(byte[] imageData)**  
Creates an ImageIcon from an array of bytes which were read from an image file containing a supported image format, such as GIF, JPEG, or (as of 1.3) PNG.

**ImageIcon(byte[] imageData, String description)**  
Creates an ImageIcon from an array of bytes which were read from an image file containing a supported image format, such as GIF, JPEG, or (as of 1.3) PNG.

**ImageIcon(Image image)**  
Creates an ImageIcon from an image object.

**ImageIcon(Image image, String description)**  
Creates an ImageIcon from the image.

**ImageIcon(String filename)**  
Creates an ImageIcon from the specified file.

**ImageIcon(String filename, String description)**  
Creates an ImageIcon from the specified file.

**ImageIcon(URL location)**  
Creates an ImageIcon from the specified URL.

**ImageIcon(URL location, String description)**  
Creates an ImageIcon from the specified URL.

### Method Summary

AccessibleImageIcon  
AccessibleImageIcon(...)

What's an easy way to display an Image in Java/Scala? - Stack Overflow

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256 = 1 • 5  
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scala × 9773

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Of course, if you have an URL for the image (or can form one from a File path), it can also be displayed as a tool-tip using HTML.

`JOptionPane.showMessageDialog(parent, new JLabel(new ImageIcon(theImage)));`

Message

See [Show full image when hover over thumbnail](#) for source.

link | improve this answer edited Jan 28 at 2:18 answered Jan 27 at 0:06

Andrew Thompson  
50.4k • 4 = 20 • 54

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How can I display a bitmap image in Java

Java - ImageDemo/src/ImageDemo.java - Eclipse - /Users/alex/rep/svn/wzw\_ss2012/teil\_java/workspace

Package Explorer

ImageDemo.java

```

import java.awt.image.BufferedImage;
import java.io.IOException;
import java.net.URL;

import javax.imageio.ImageIO;
import javax.swing.ImageIcon;
import javax.swing.JOptionPane;

public class ImageDemo {

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        try {
            URL url = new URL("http://www.google.com/intl/en_ALL/images/logos/images_logo_lg.gif");
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        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}

```

Problems | Javadoc | Declaration | Console

<terminated> ImageDemo [Java Application] /System/Library/Java/JavaVirtualMachines/1.6.0.jdk/Contents/Home/bin/java (Jul 5, 2012 2:09:06 F