

# Script generated by TTT

Title: groh: profile1 (04.07.2014)

Date: Fri Jul 04 09:13:55 CEST 2014

Duration: 96:01 min

Pages: 73

```
public final class MyClass {
    public static int sameValueForAllInstances = 3;
    public final int constantValue;
    public static final int constantValueForAllInstances = 7;

    public MyClass(int cv) { constantValue = cv; }

    public static void methodOne() { /* ... */ }
    public final void methodTwo() { /* ... */ }
    public static final void methodThree() { /* ... */ }
}

public static void main(String[] args) {
    MyClass m1 = new MyClass(20);
    MyClass m2 = new MyClass(30);
    MyClass.sameValueForAllInstances = 99;
    System.out.println(m1.sameValueForAllInstances); // 99
    System.out.println(m2.sameValueForAllInstances); // 99
    System.out.println(MyClass.sameValueForAllInstances); // 99
    System.out.println(m1.constantValue); // 20
    m1.constantValue = 77; // ERROR
    MyClass.methodOne();
    m1.methodTwo();
    MyClass.methodThree();
}
```

- **Access modifiers:**
  - **static:** field or method **bound to class** instead of object *class-method, class-variable* as opposed to *instance-method, instance-variable*
  - **final:**
    - fields: cannot be changed (constants)
    - methods: cannot be **overridden** (later)
    - classes: cannot be subclassed

```
final class MyClass {
    static int sameValueForAllInstances = 3;
    final int constantValue = 5;
    static final int constantValueForAllInstances = 7;

    static void methodOne() { /* ... */ }
    final void methodTwo() { /* ... */ }
    static final void methodThree() { /* ... */ }
}
```

- **parameter list:** Passing parameters to methods or constructors

```
int doSomething(int primitiveParameter1,
               double primitiveParameter2,
               SomeClass referenceParameter)
{
    int someInt = 17 + 9;
    primitiveParameter1 = 0;
    referenceParameter = null;
    return someInt;
} // body
```

- **Passing primitive type parameters:** **Call By Value**  
Changes to parameter have no effect outside of method or constructor

```
int x = 1;
SomeClass someObject = new SomeClass();
int y = doSomething(x, 2.345, someObject);
// At this point, x still has value 1.
```

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### 3 Classes, Objects, Inheritance

#### Parameters

- parameter list:** Passing parameters to methods or constructors

```
int doSomething(int primitiveParameter1,
               double primitiveParameter2,
               SomeClass referenceParameter)
{
    int someInt = 17 + 9;
    primitiveParameter1 = 0;
    referenceParameter = null;
    return someInt;
}
```

} body

- Passing **primitive type** parameters: **Call By Value**  
Changes to parameter have no effect outside of method or constructor

```
int x = 1;
SomeClass someObject = new SomeClass();
int y = doSomething(x, 2.345, someObject);
// At this point, x still has value 1.
```

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Start

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### 3 Classes, Objects, Inheritance

#### Parameters

- parameter list:** Passing parameters to methods or constructors

```
int doSomething(int primitiveParameter1,
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               SomeClass referenceParameter)
{
    int someInt = 17 + 9;
    primitiveParameter1 = 0;
    referenceParameter = null;
    return someInt;
}
```

} body

- Passing **primitive type** parameters: **Call By Value**  
Changes to parameter have no effect outside of method or constructor

```
int x = 1;
SomeClass someObject = new SomeClass();
int y = doSomething(x, 2.345, someObject);
// At this point, x still has value 1.
```

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### 3 Classes, Objects, Inheritance

#### Parameters

- parameter list:** Passing parameters to methods or constructors

```
int doSomething(int primitiveParameter1,
               double primitiveParameter2,
               SomeClass referenceParameter)
{
    int someInt = 17 + 9;
    primitiveParameter1 = 0;
    referenceParameter = null;
    return someInt;
}
```

} body

- Passing **reference type** parameters: **ALSO Call By Value (!!)**  
Changes to parameter have no effect outside of method or constructor

```
int x = 1;
SomeClass someObject = new SomeClass();
int y = doSomething(x, 2.345, someObject);
// At this point, someObject still references
// the same object (someObject != null).
```

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Start

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New Java Class

Create a new Java class.

Package Explorer

Source folder: uebung4/src

Package: uebung4

Ending type:

Name:

Modifiers:  public  default  private  protected

abstract  final  static

Superclass: java.lang.Object

Interfaces:

Which method stubs would you like to create?

public static void main(String[] args)

Constructors from superclass

Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))

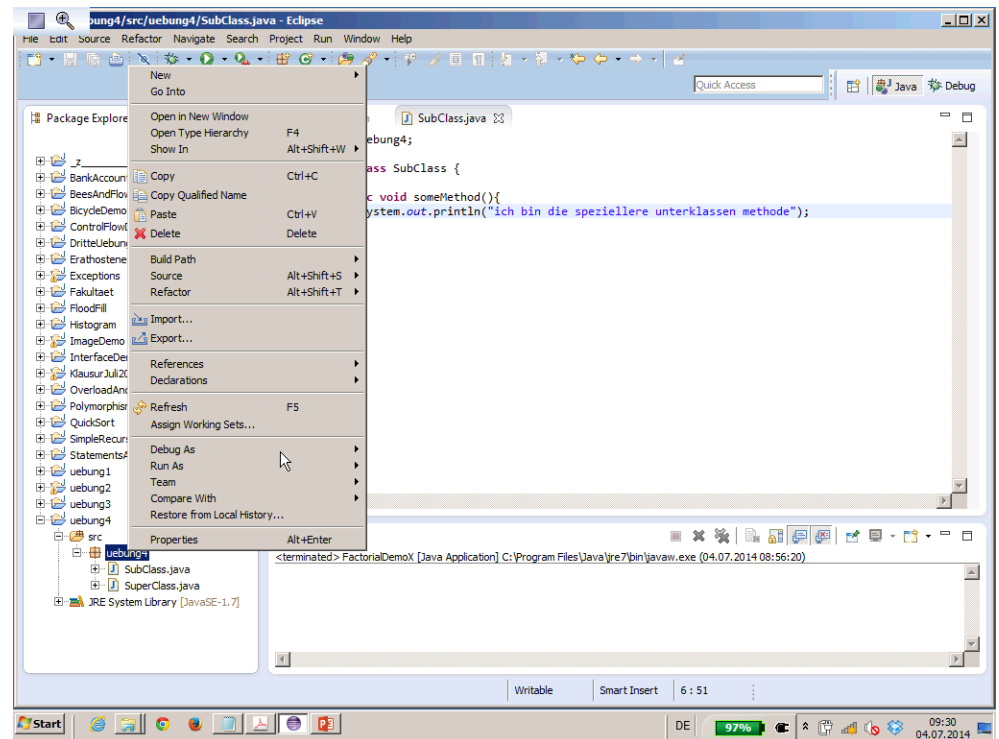
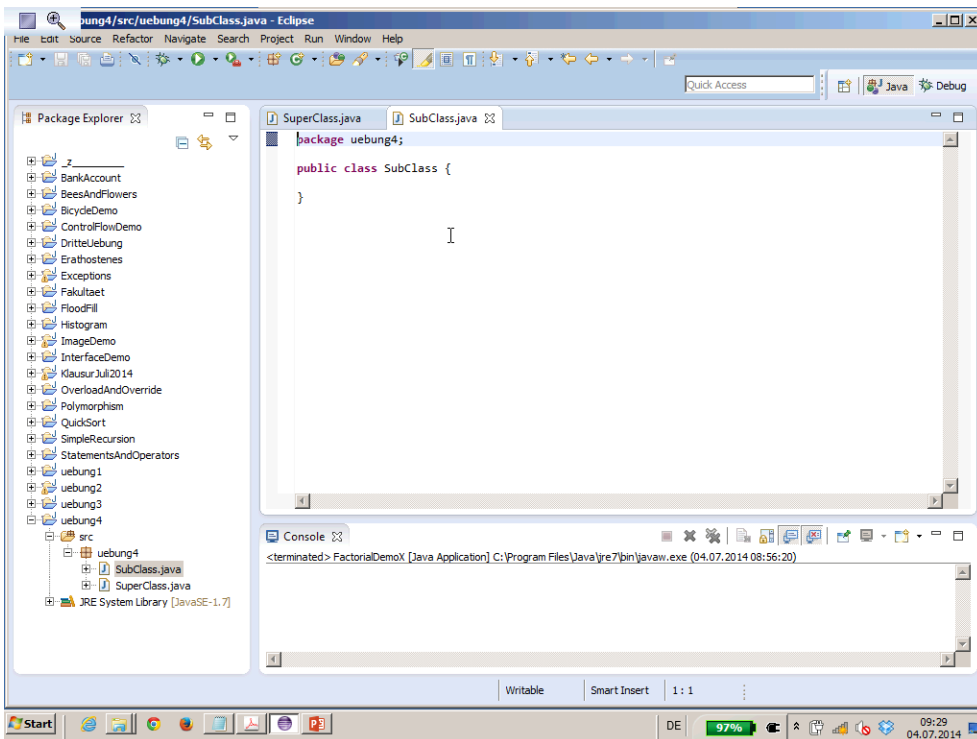
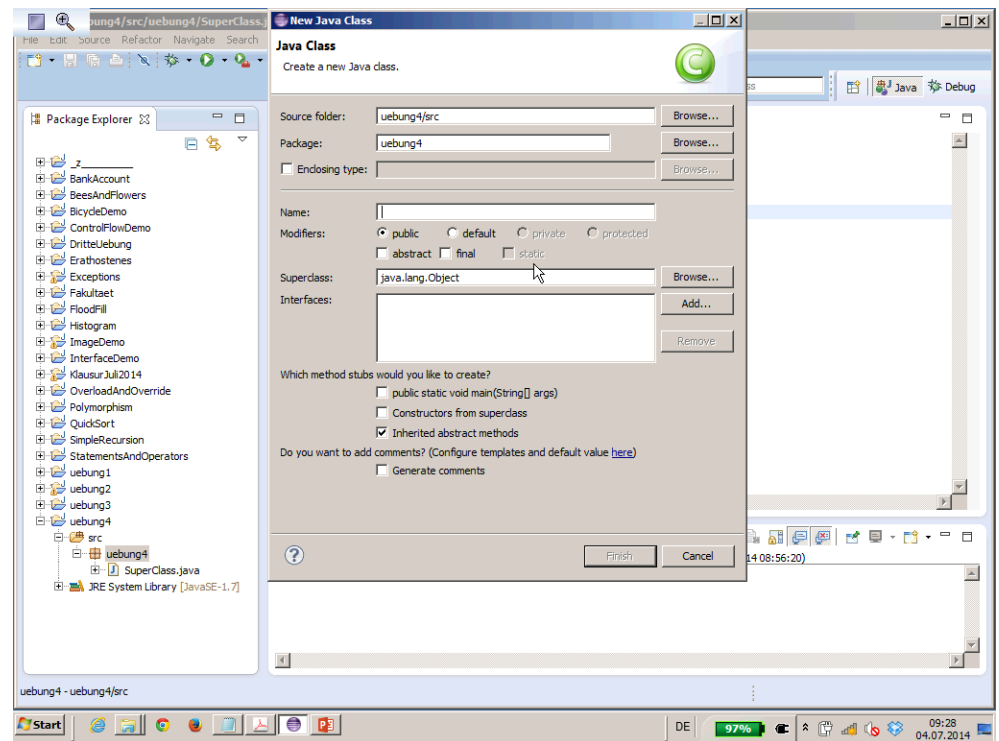
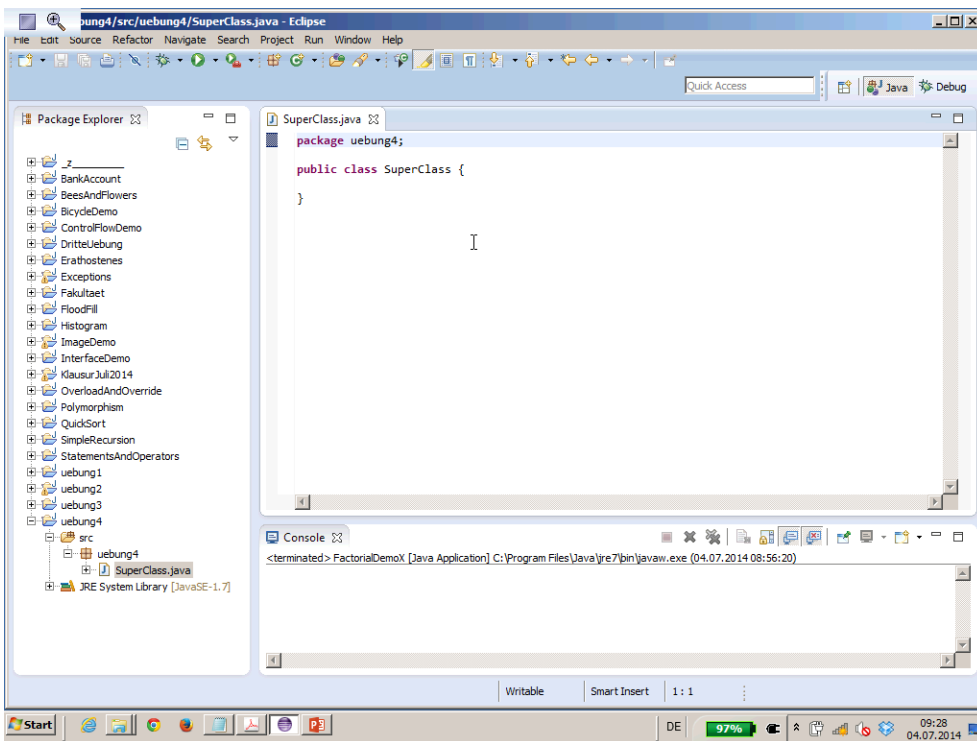
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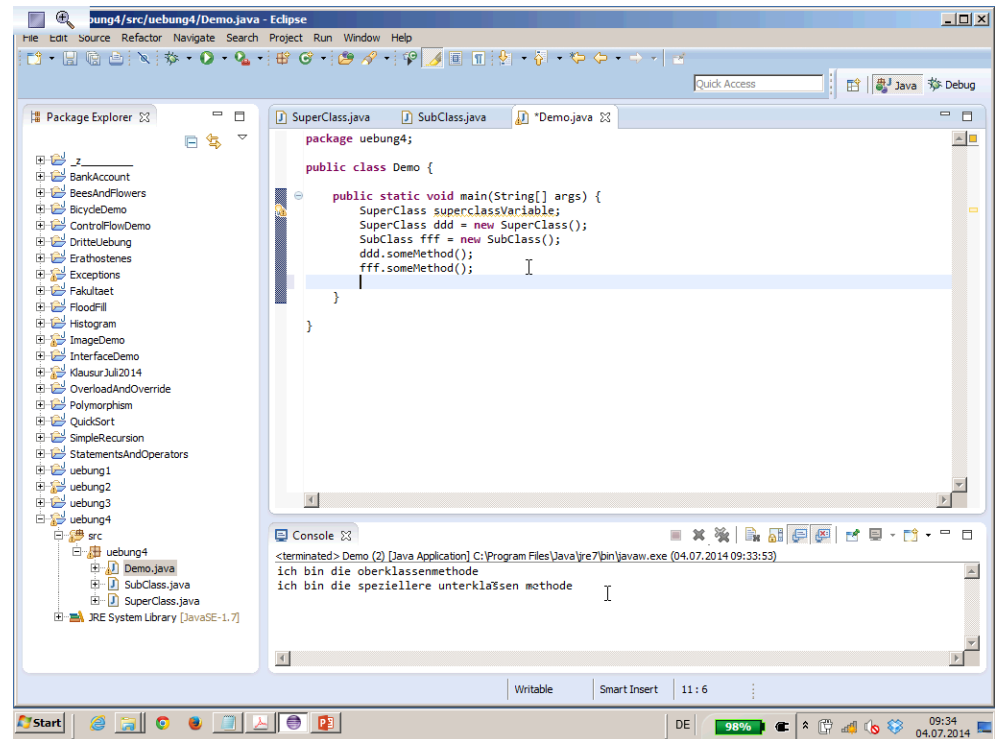
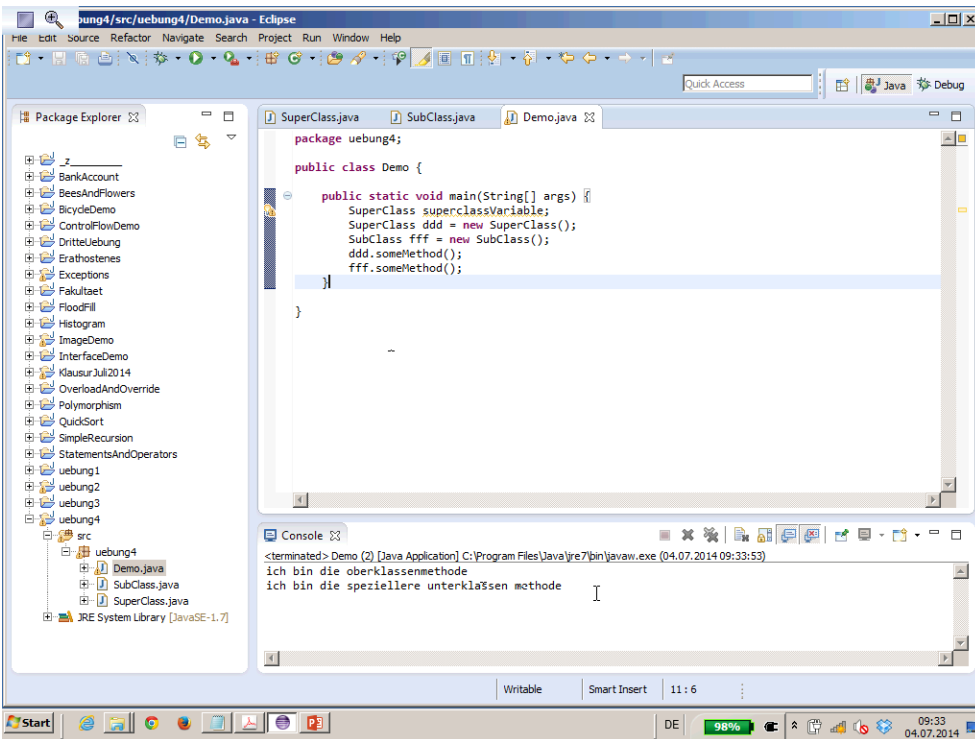
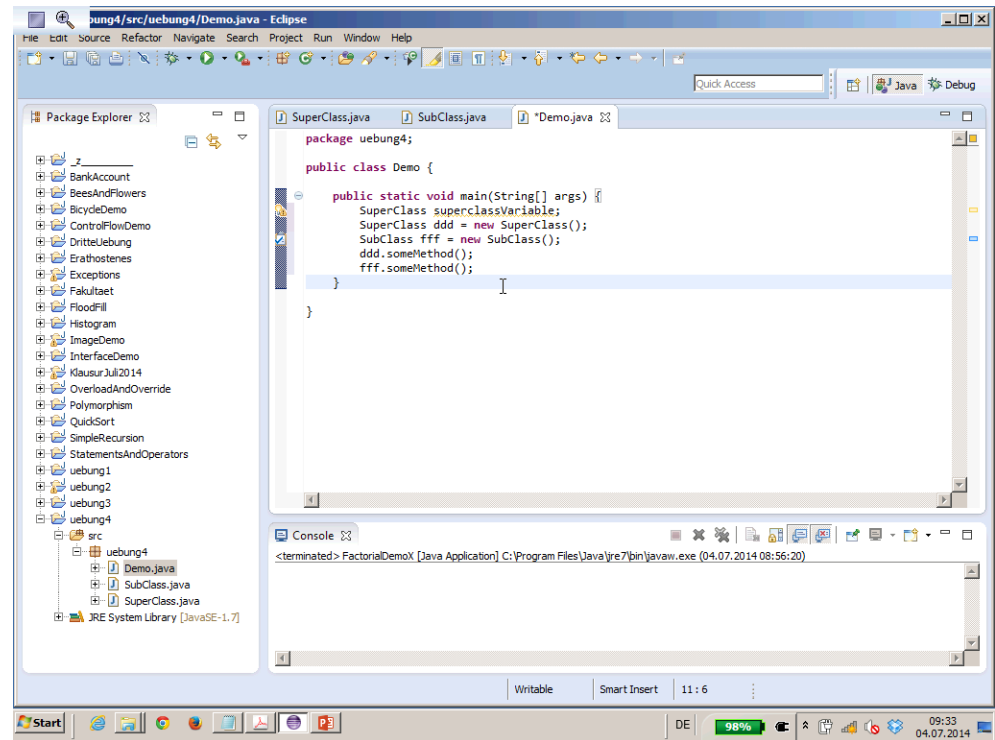
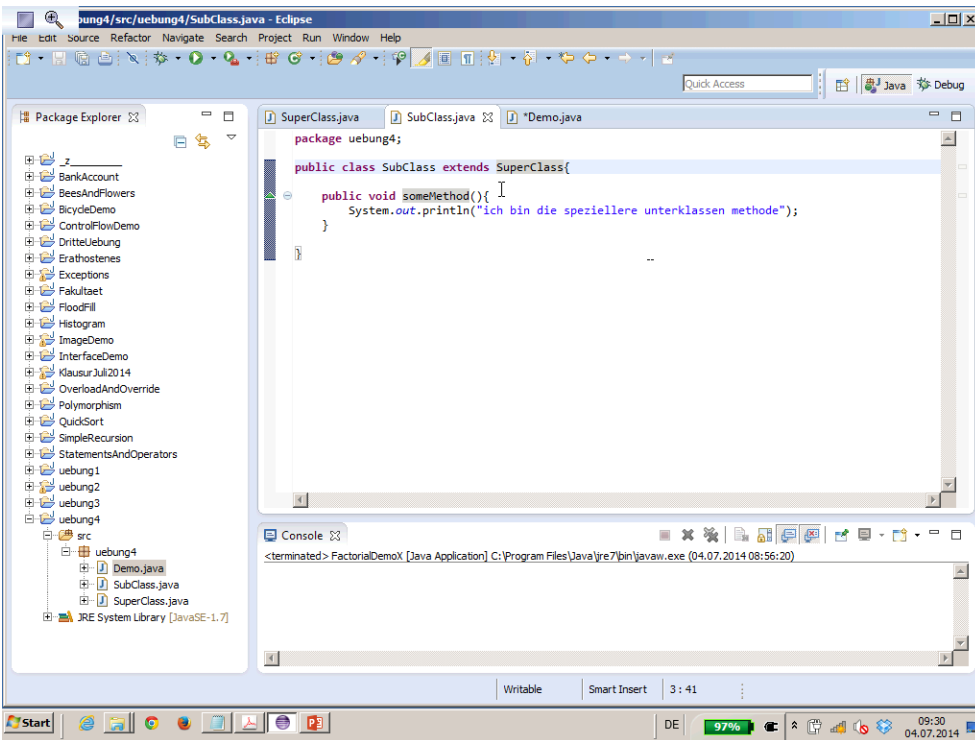
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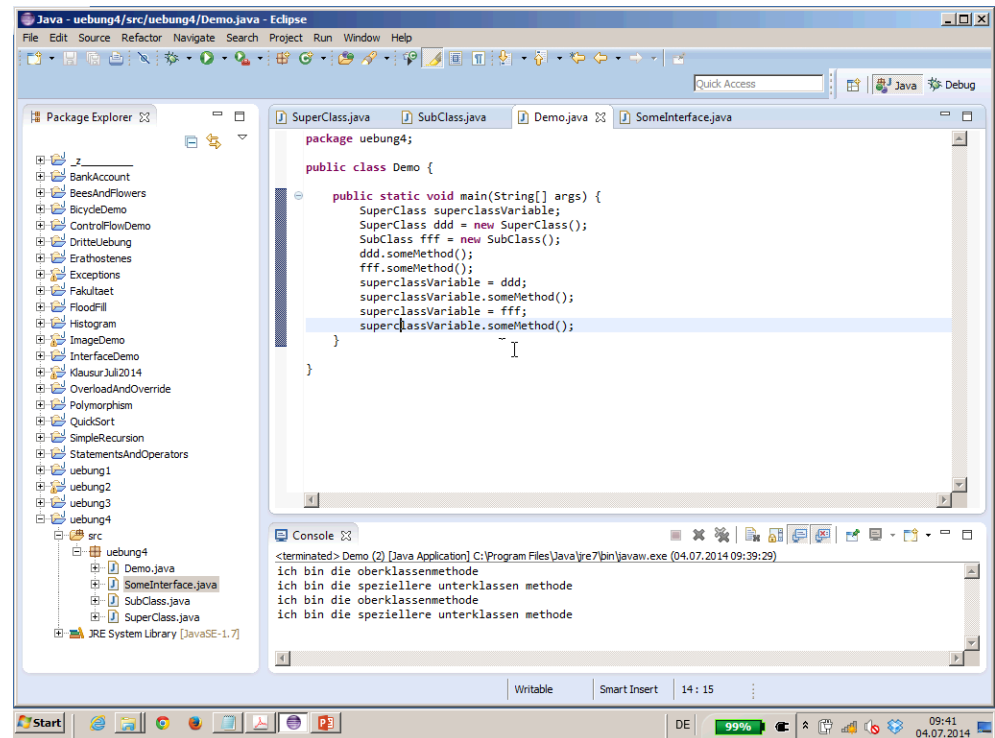
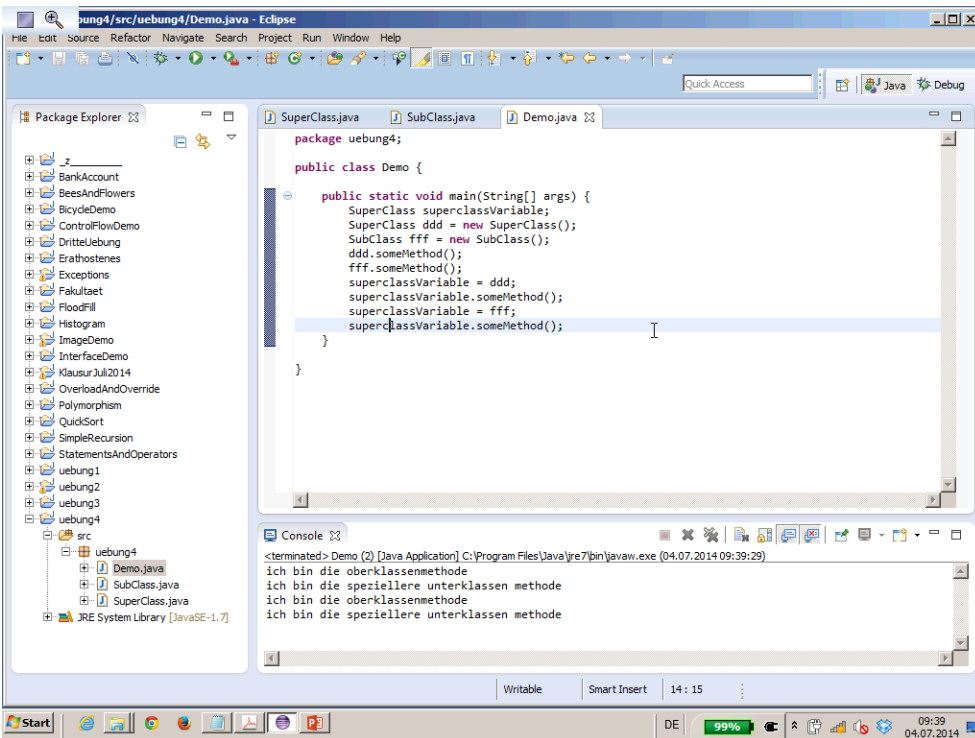
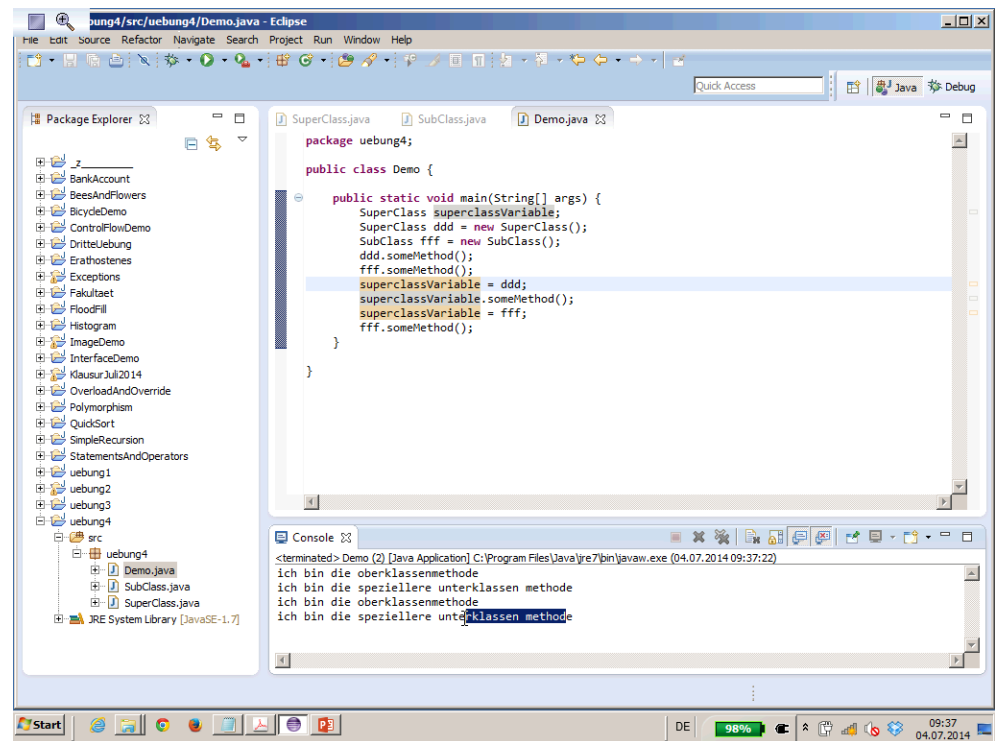
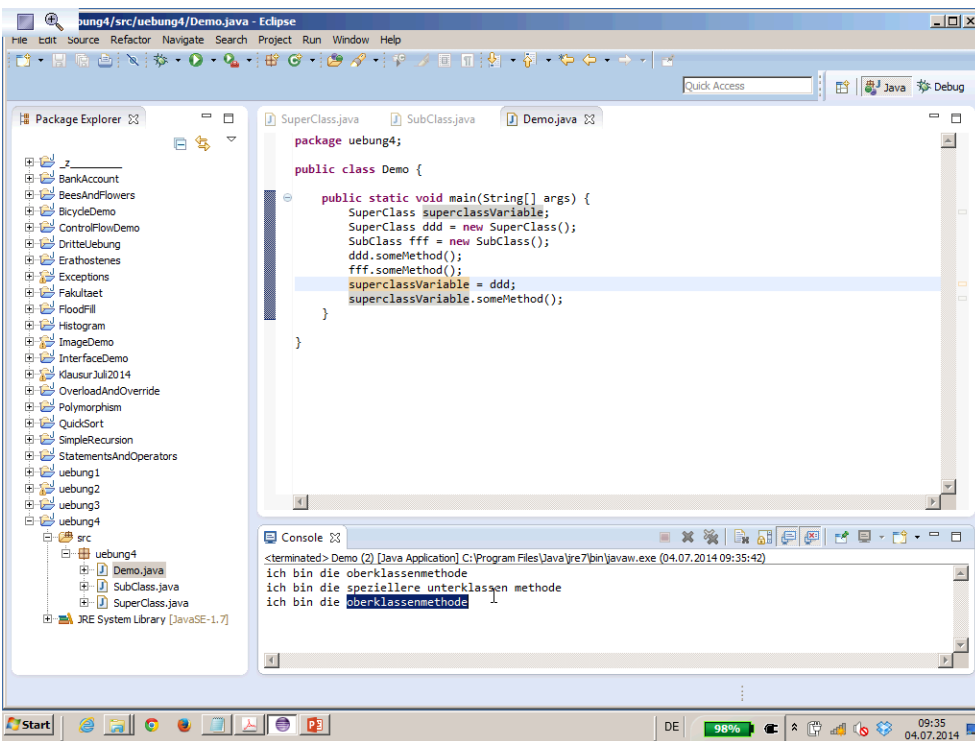
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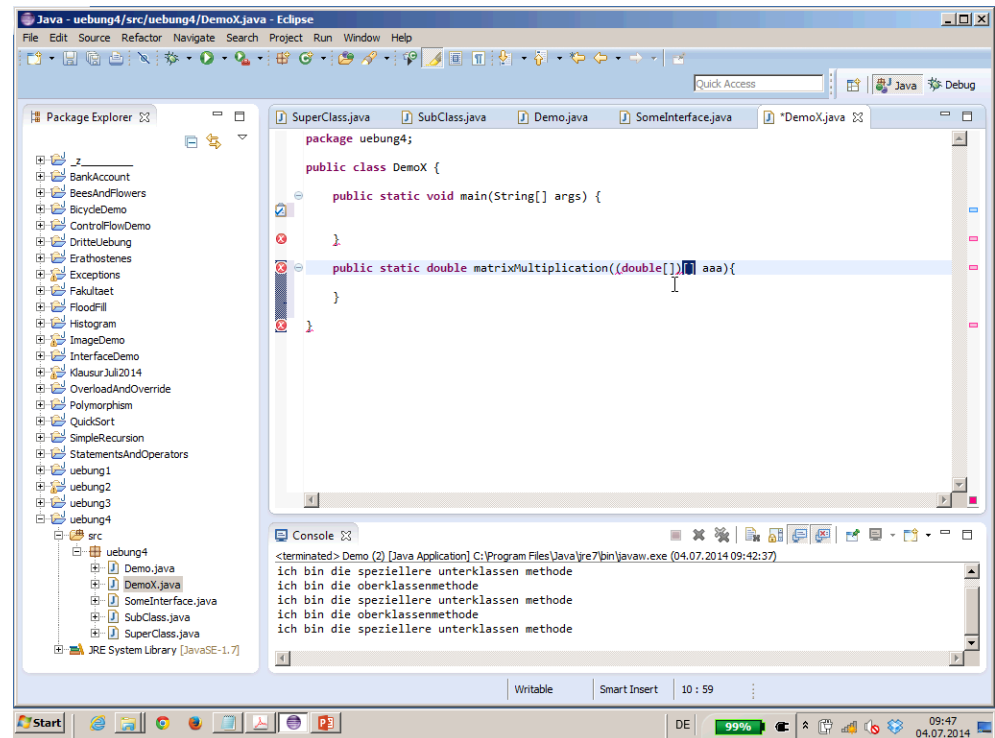
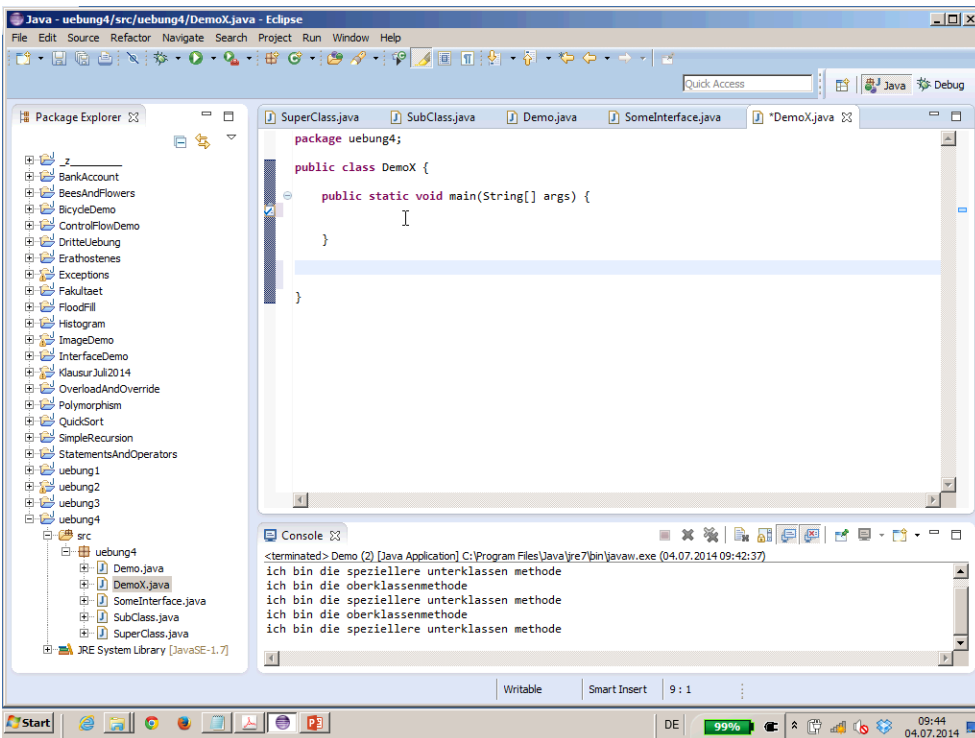
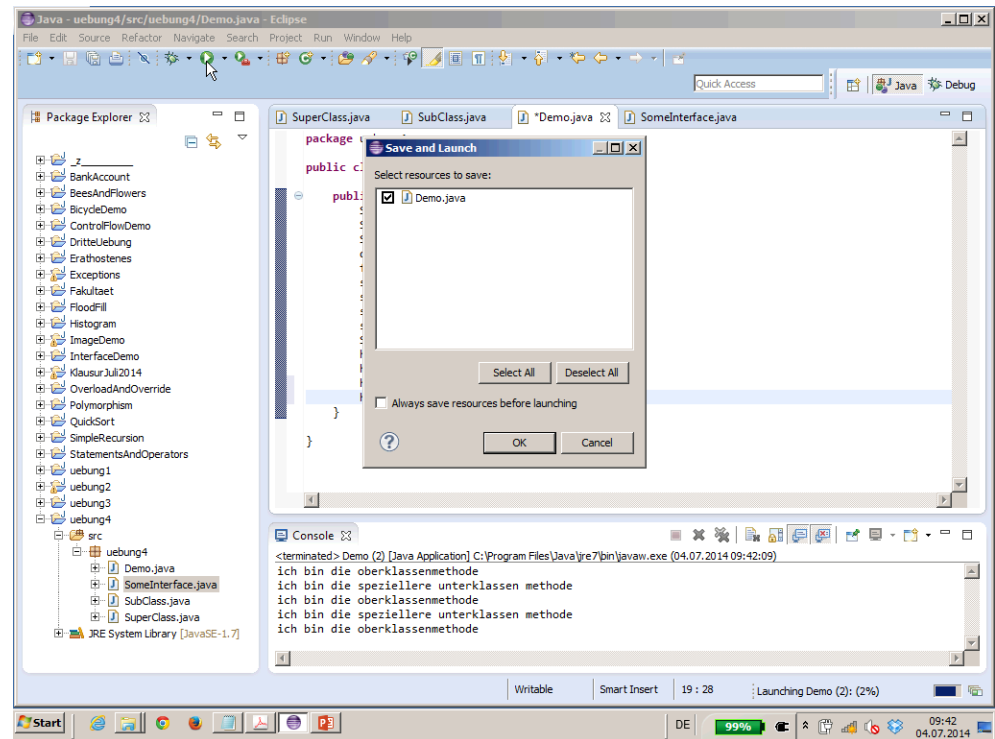
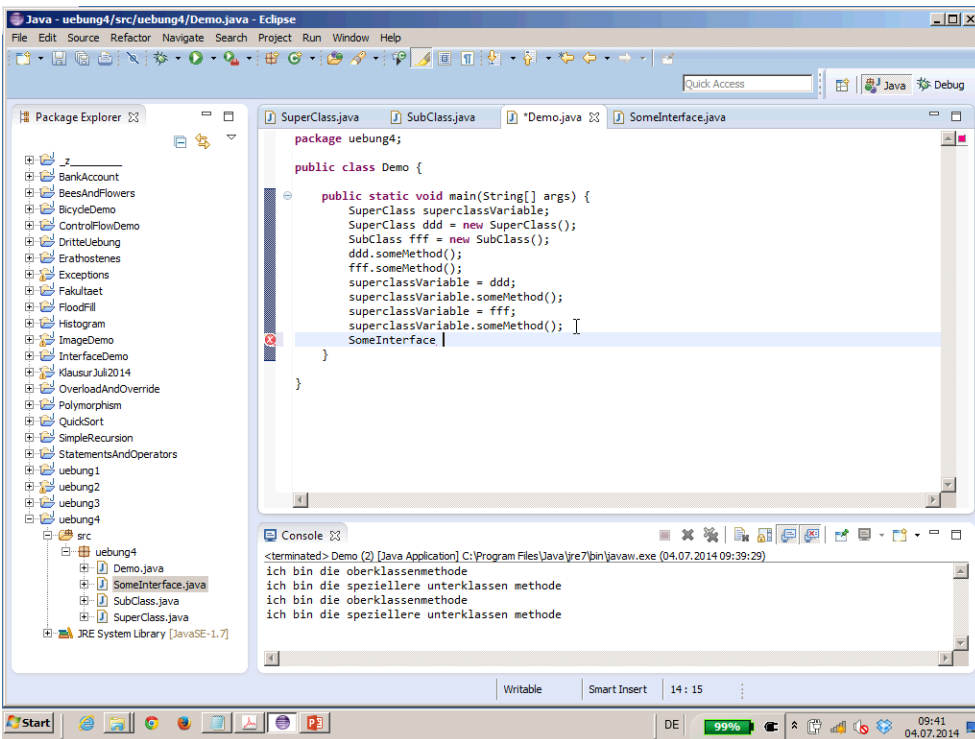
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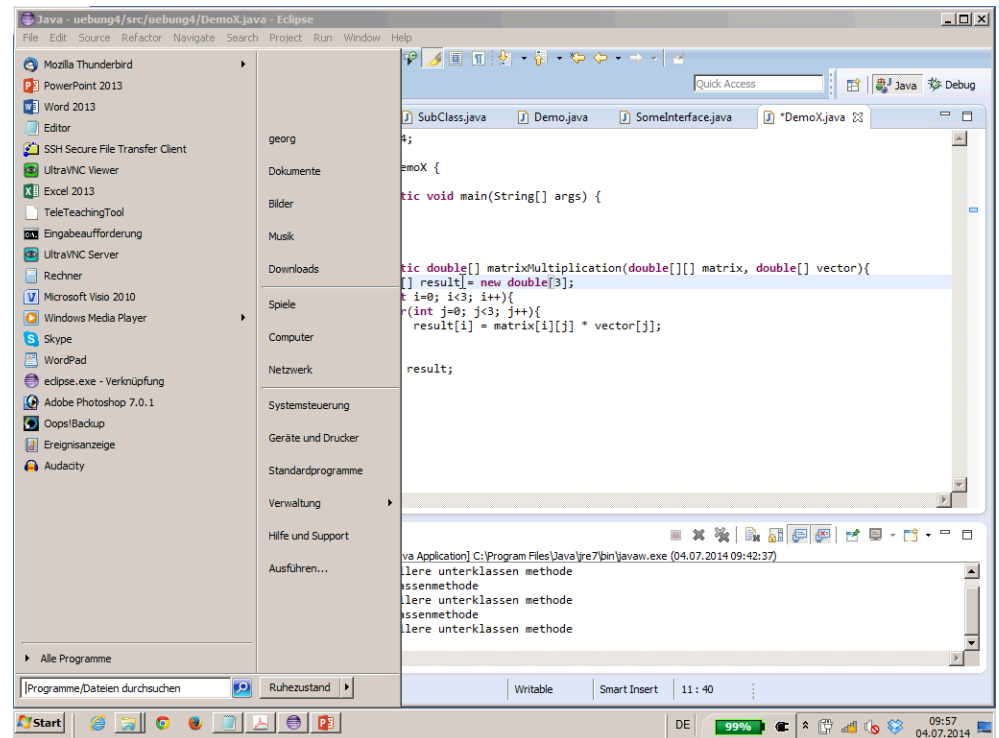
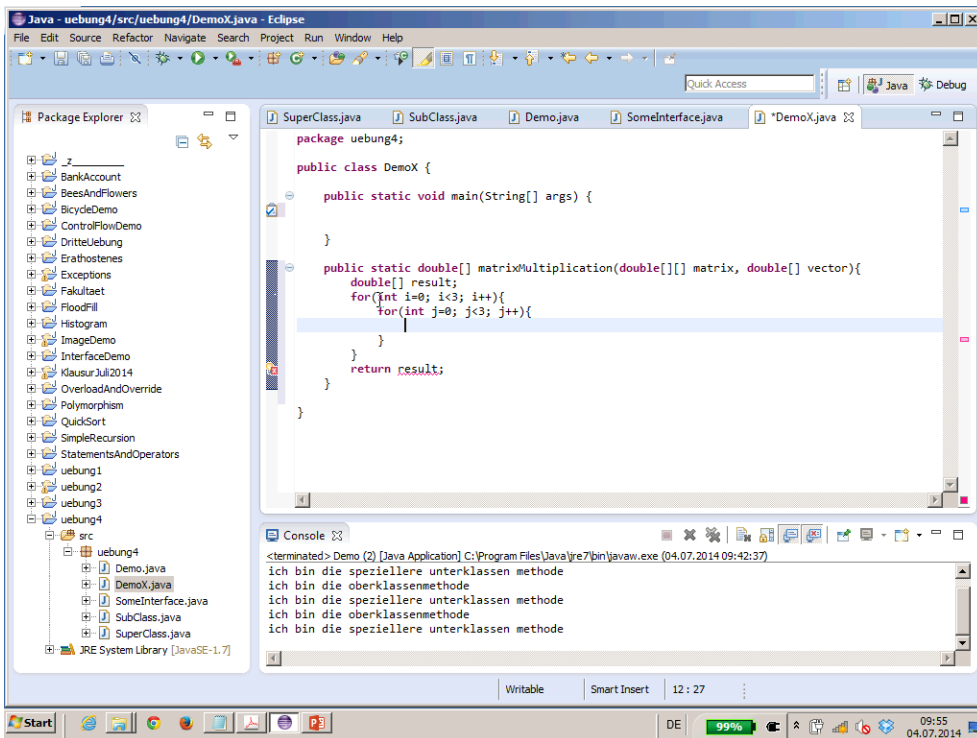
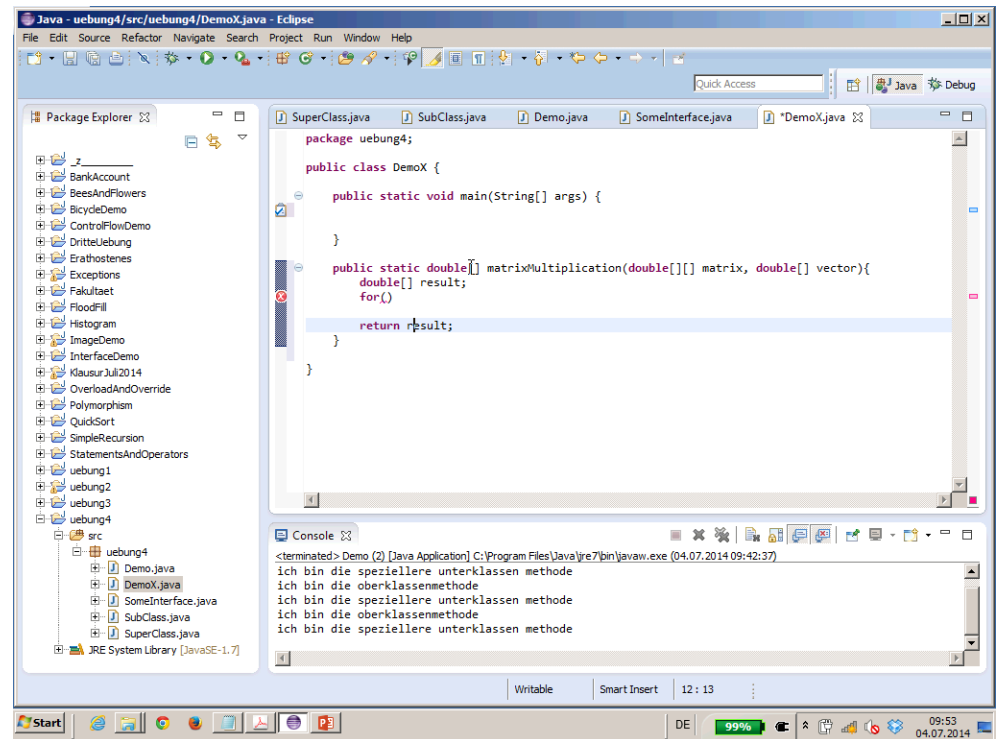
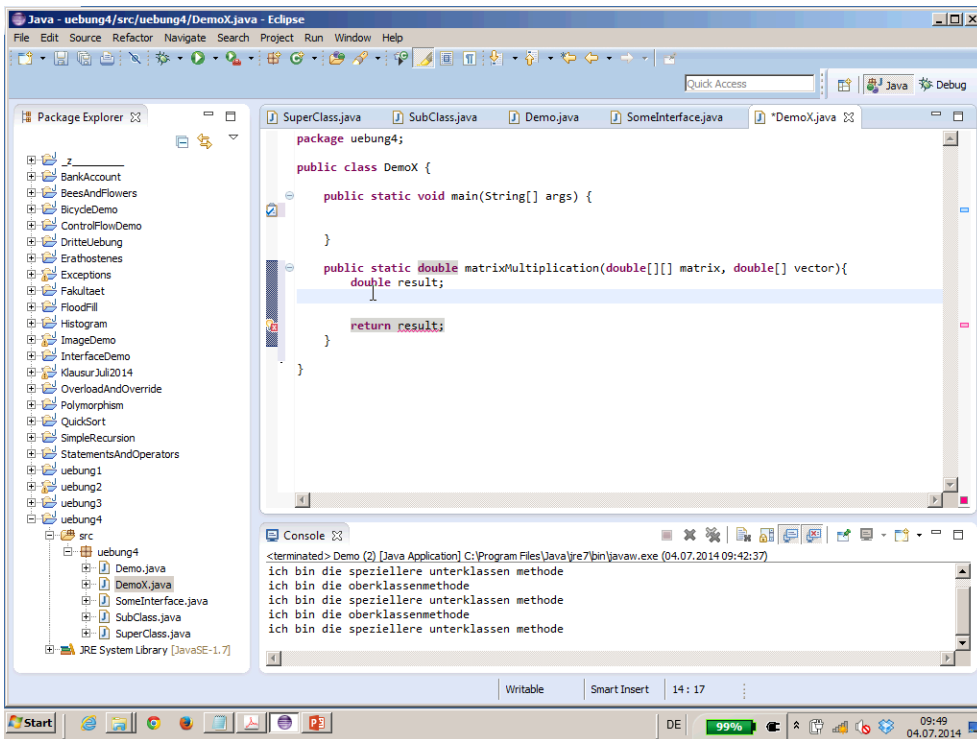
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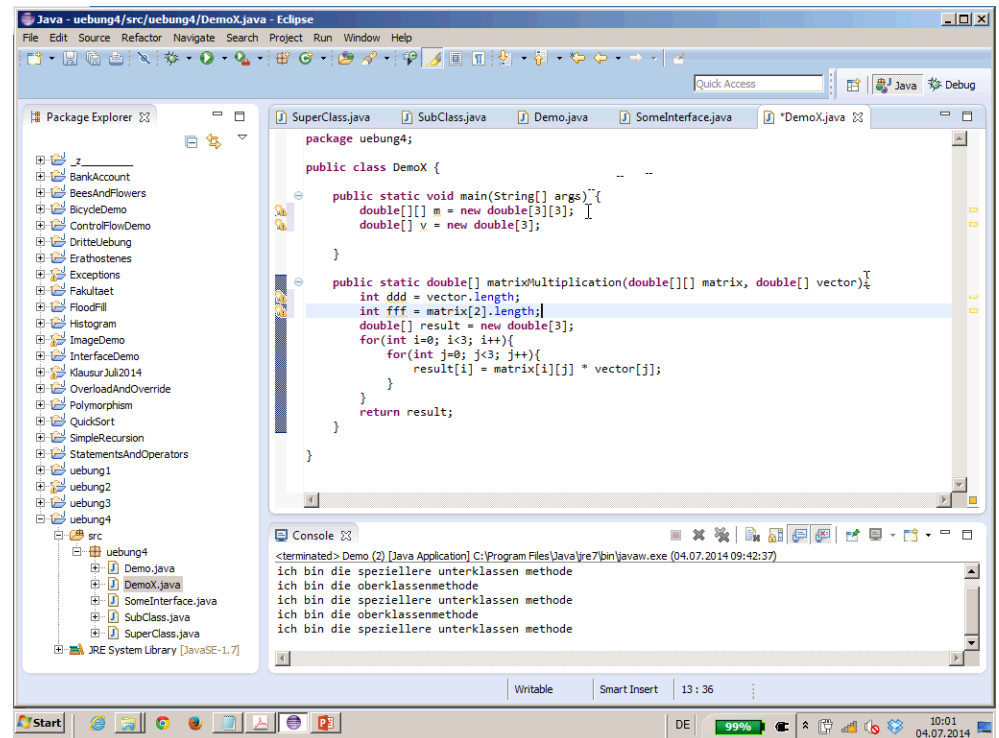
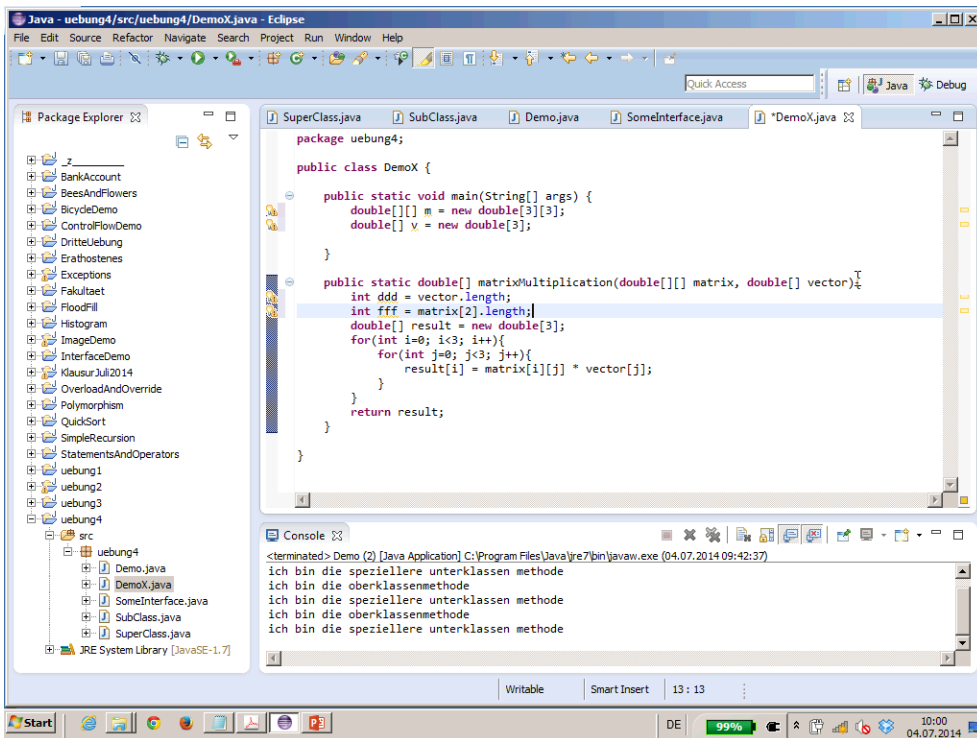
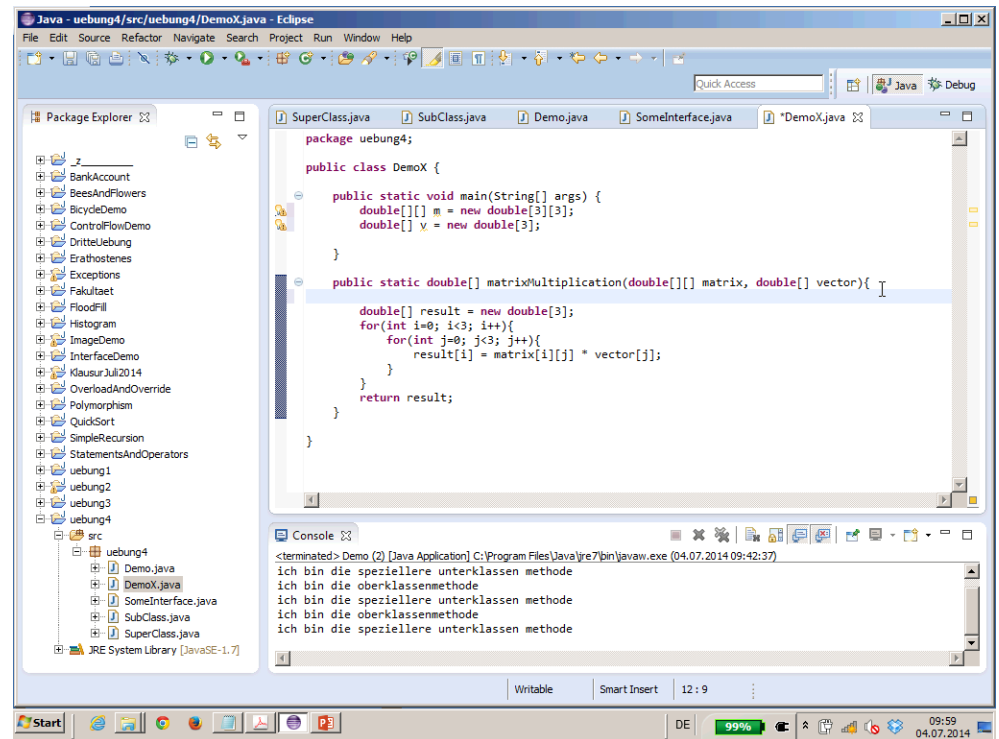
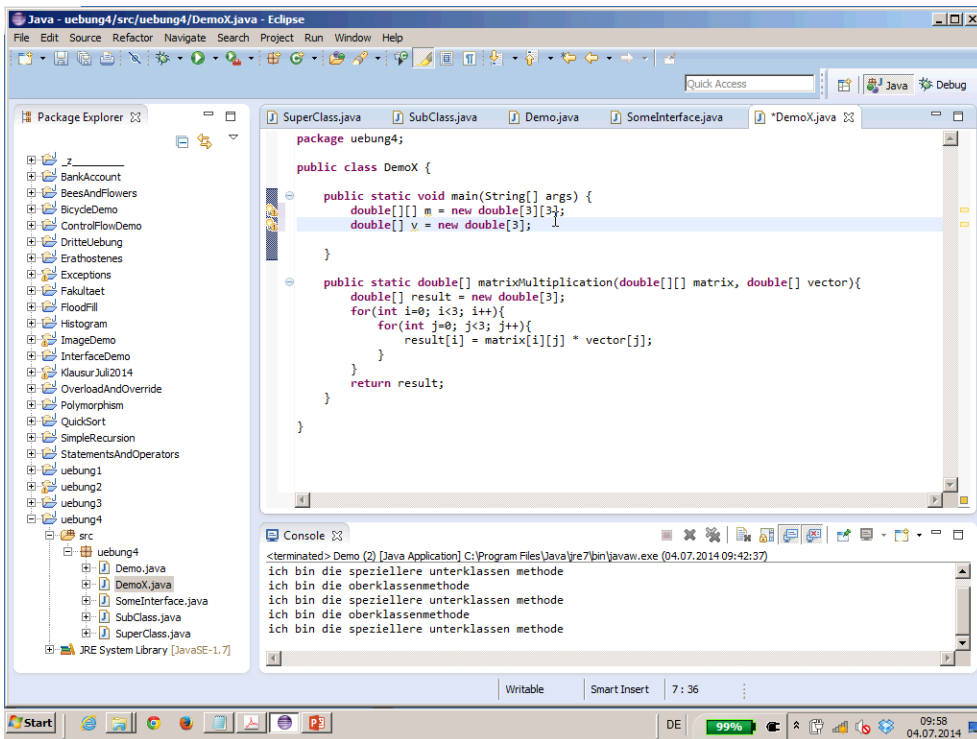




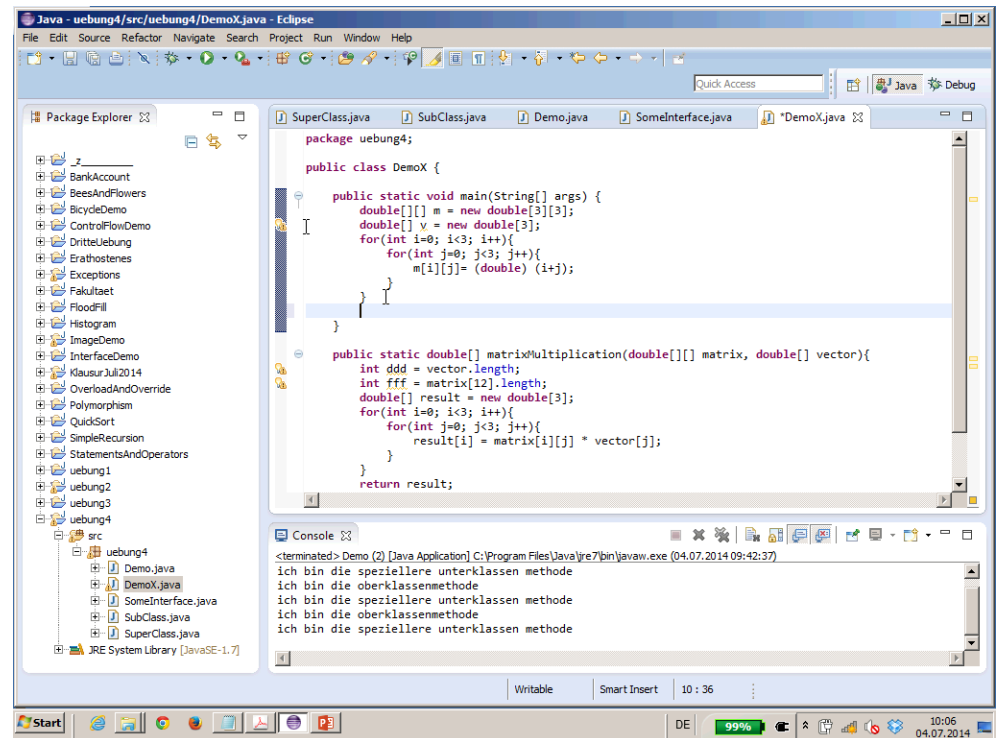
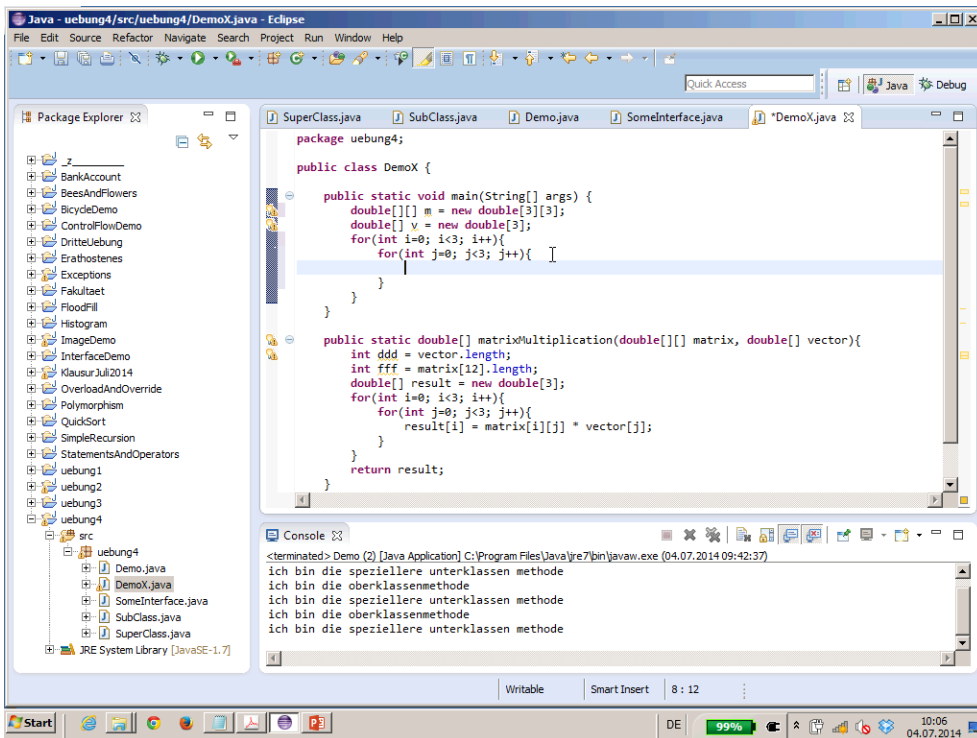
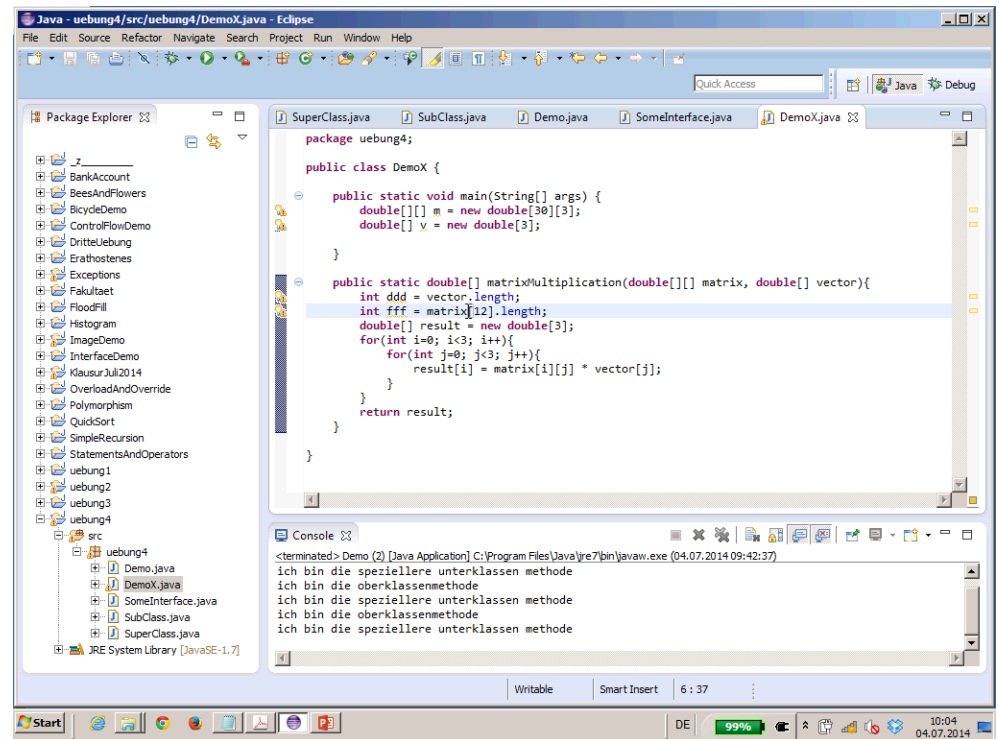
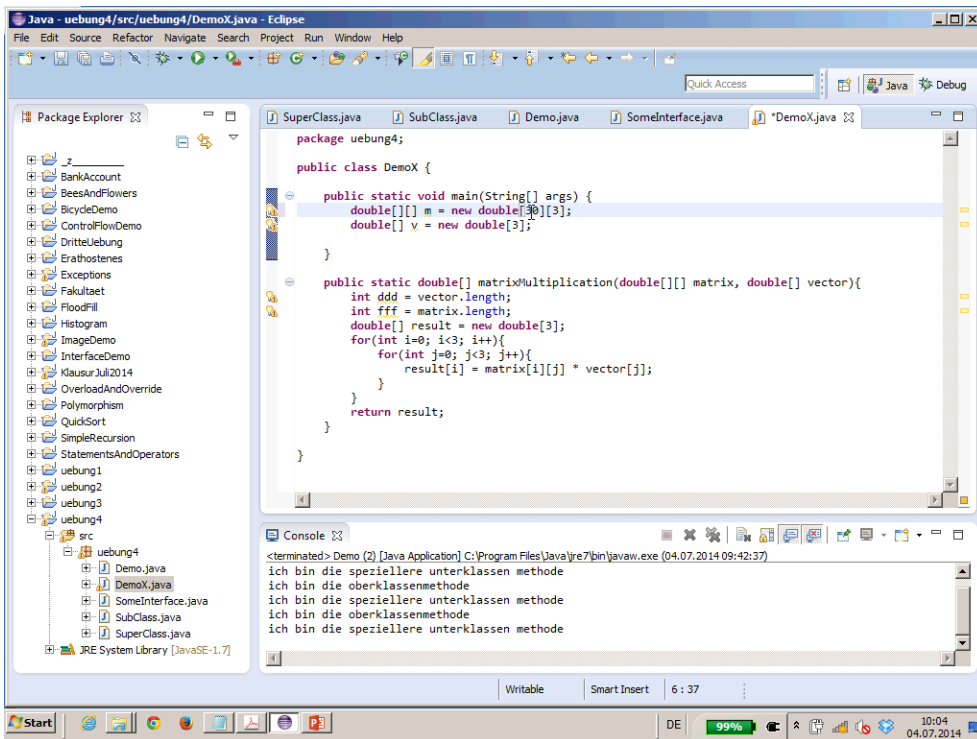


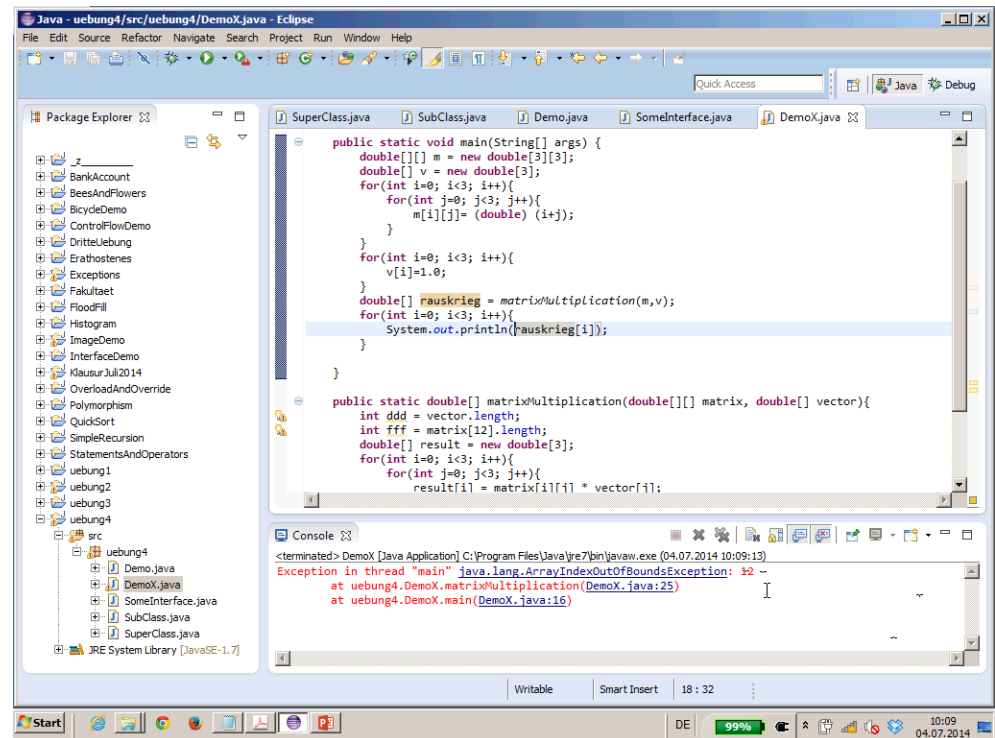
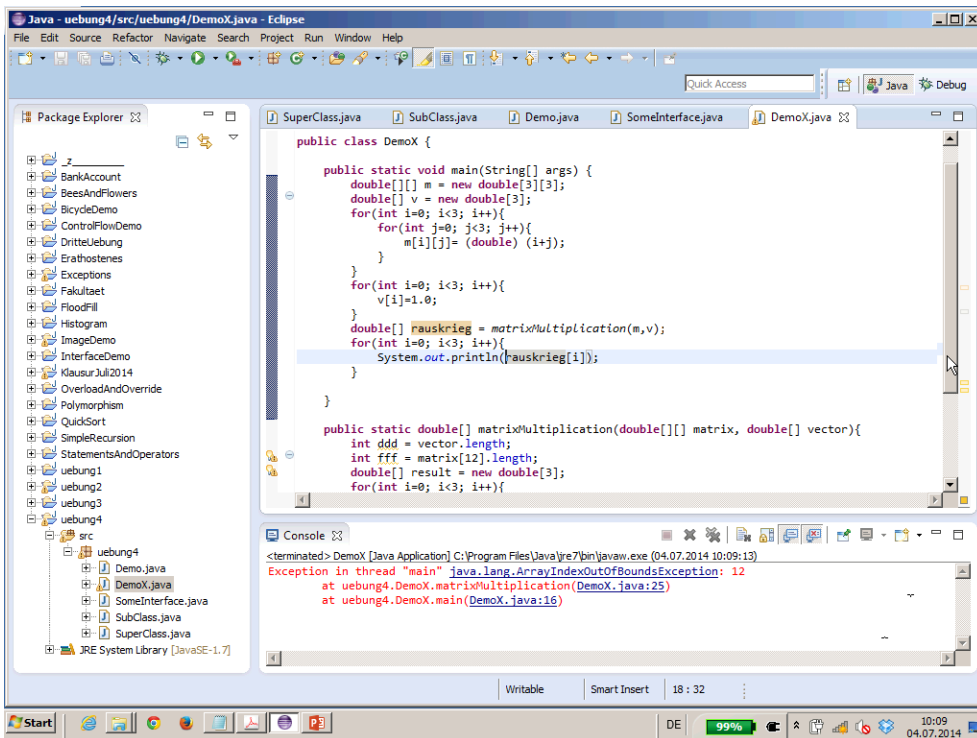
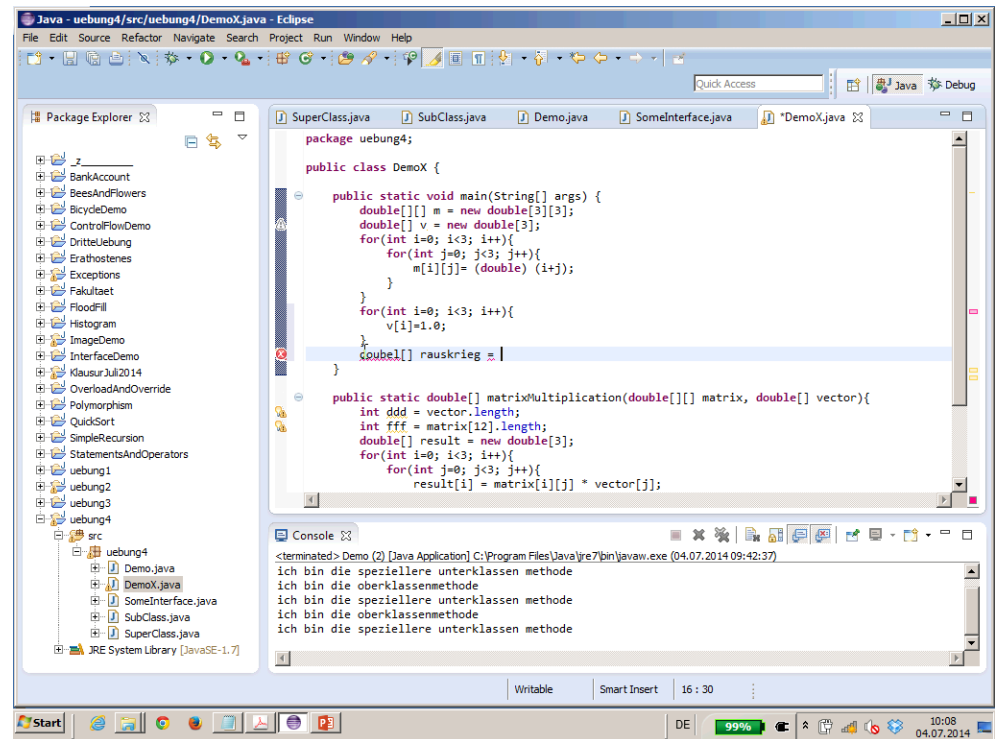
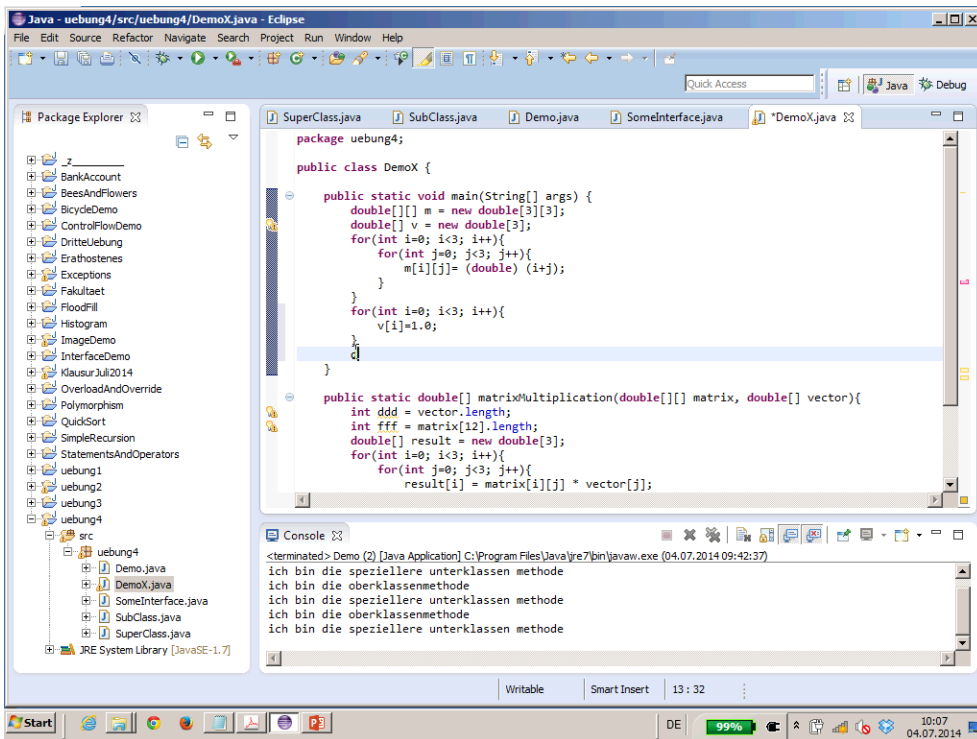


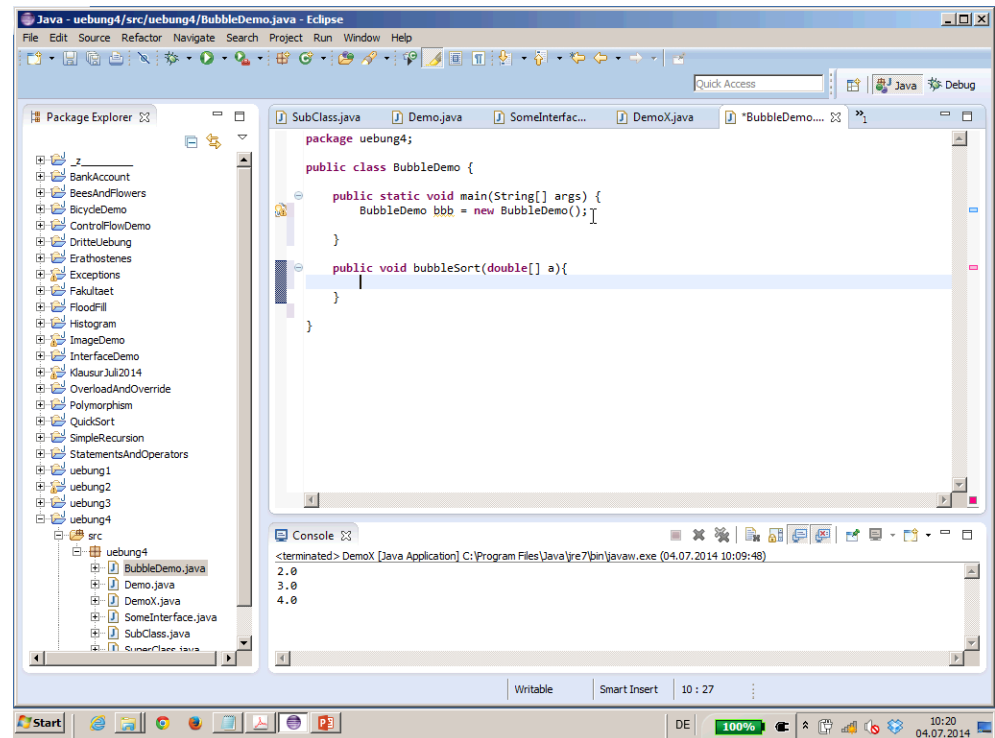
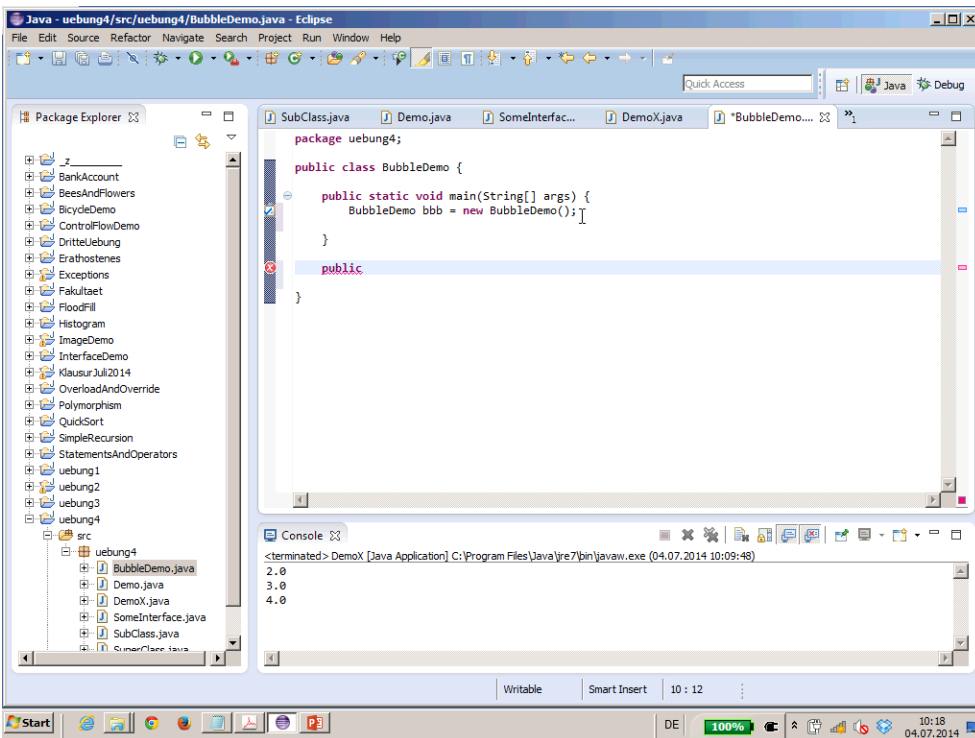
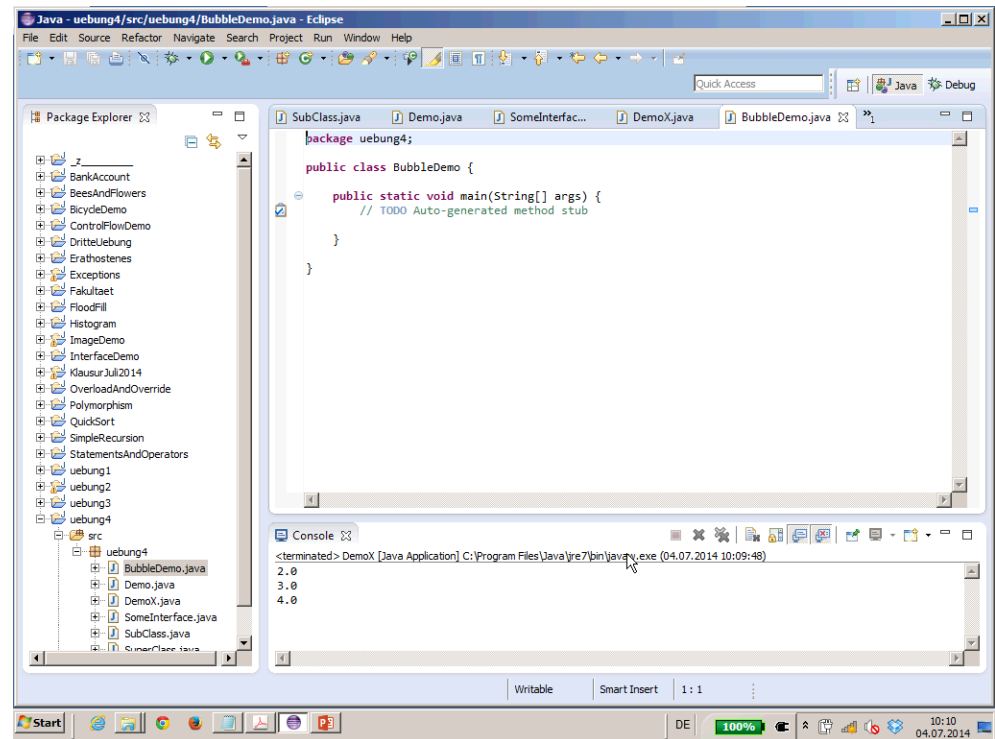
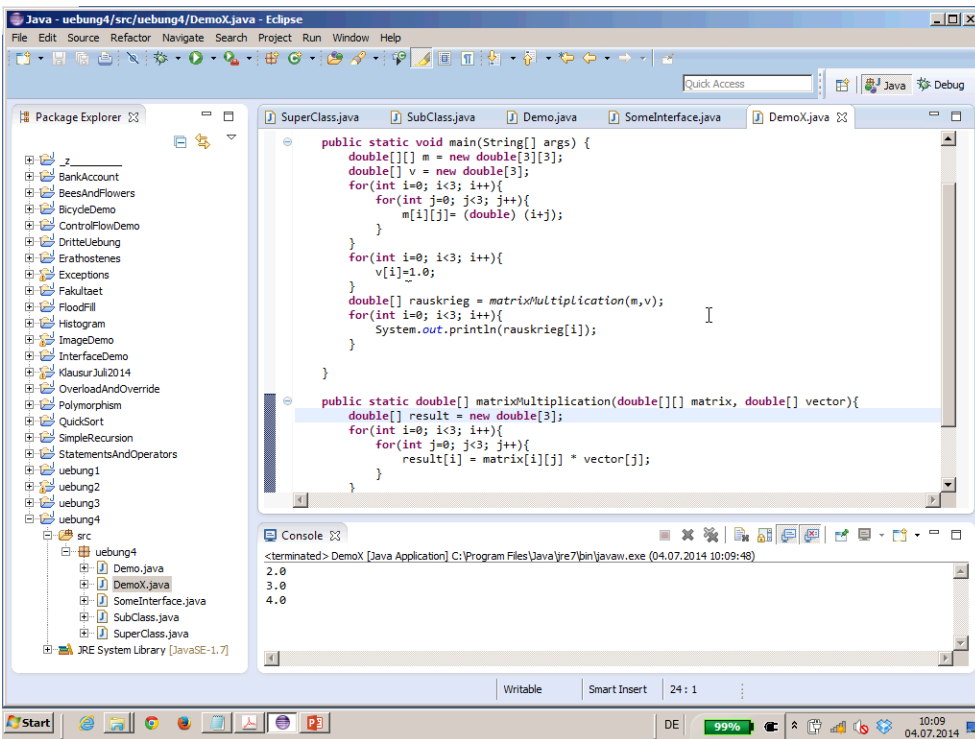


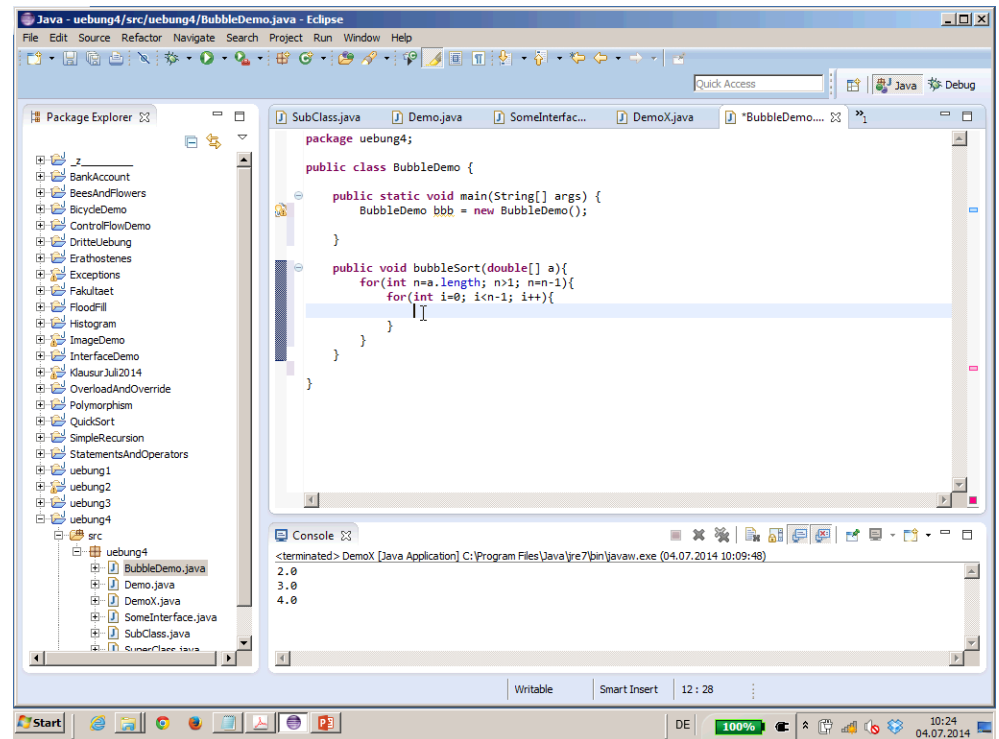
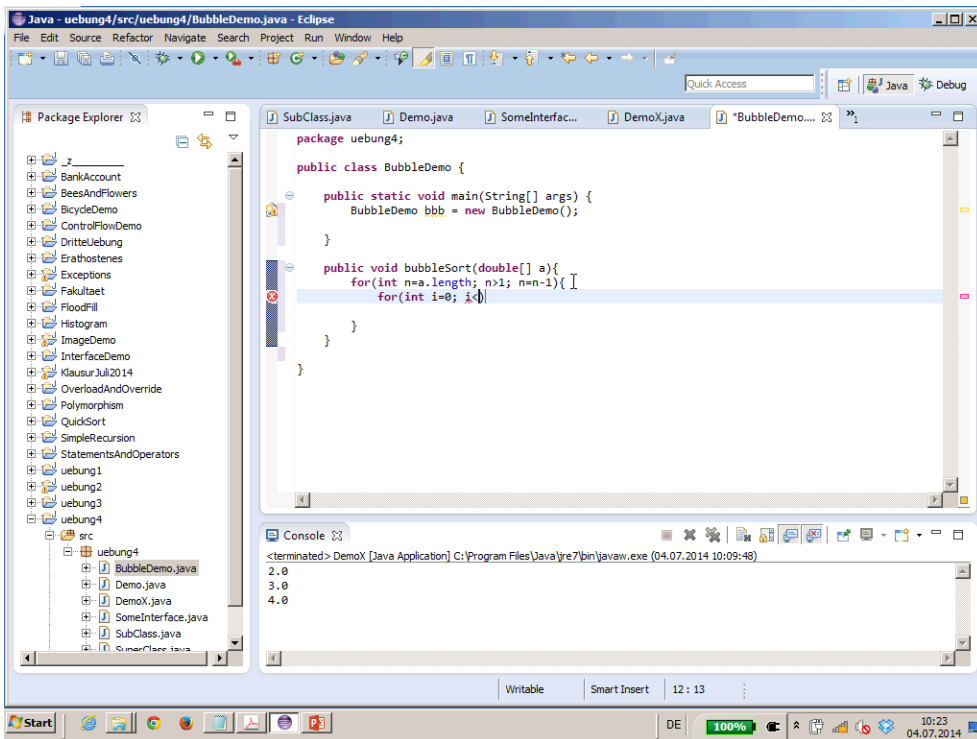
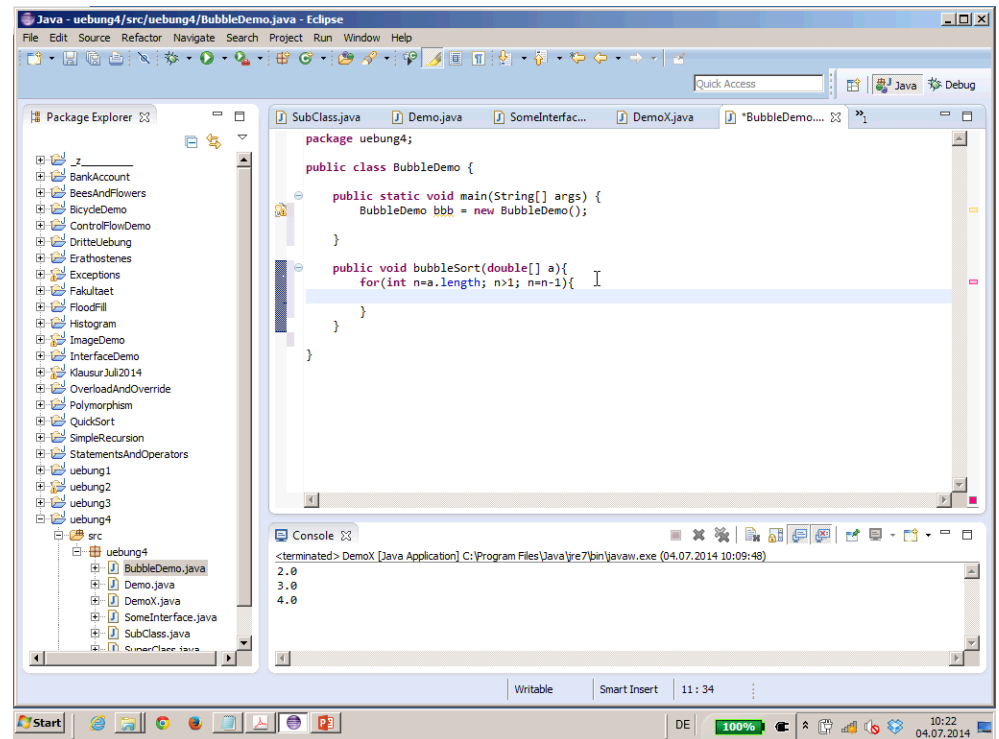
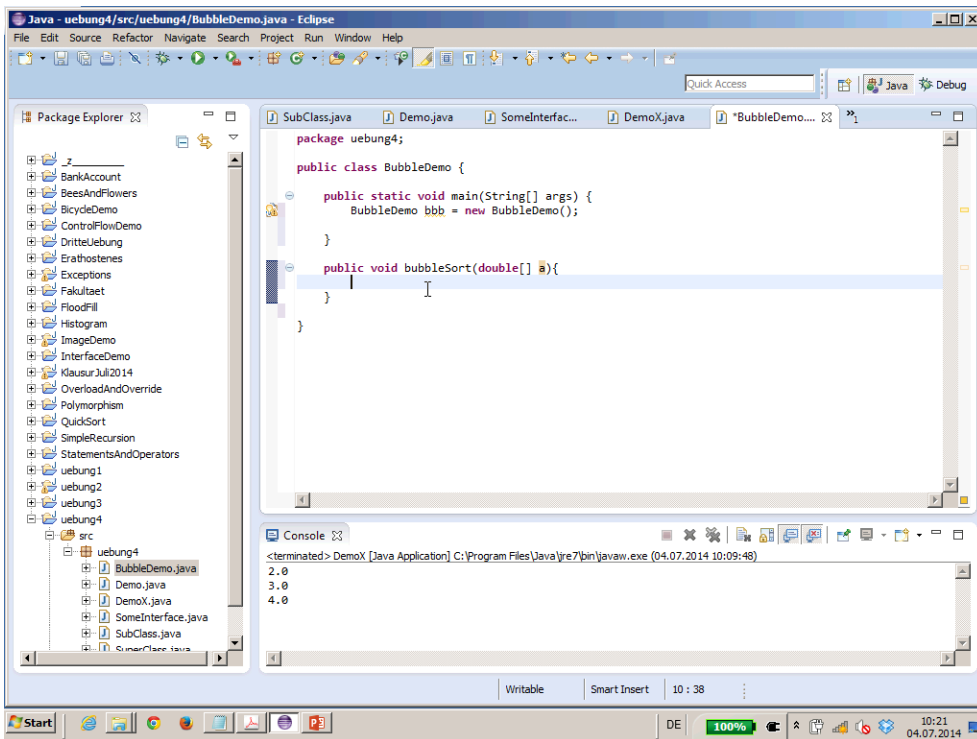


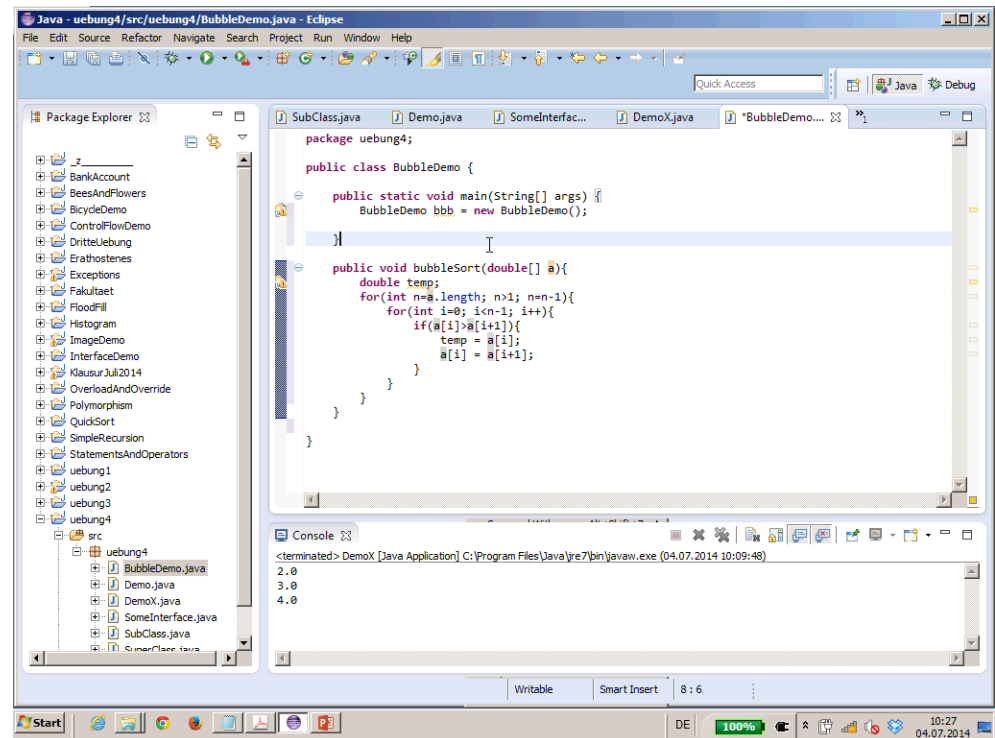
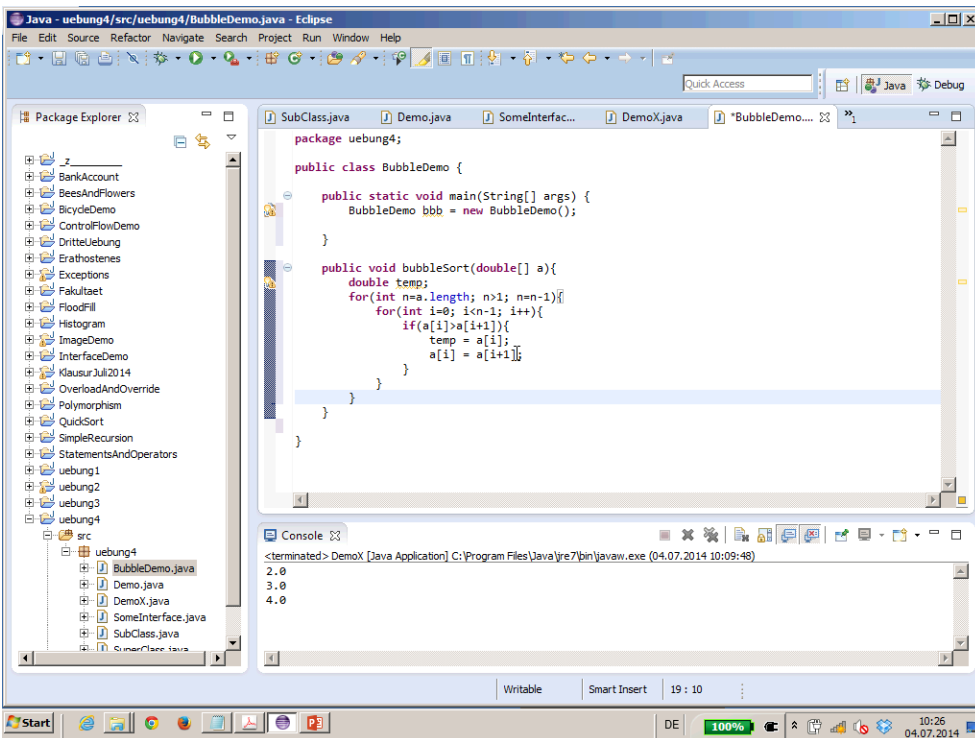
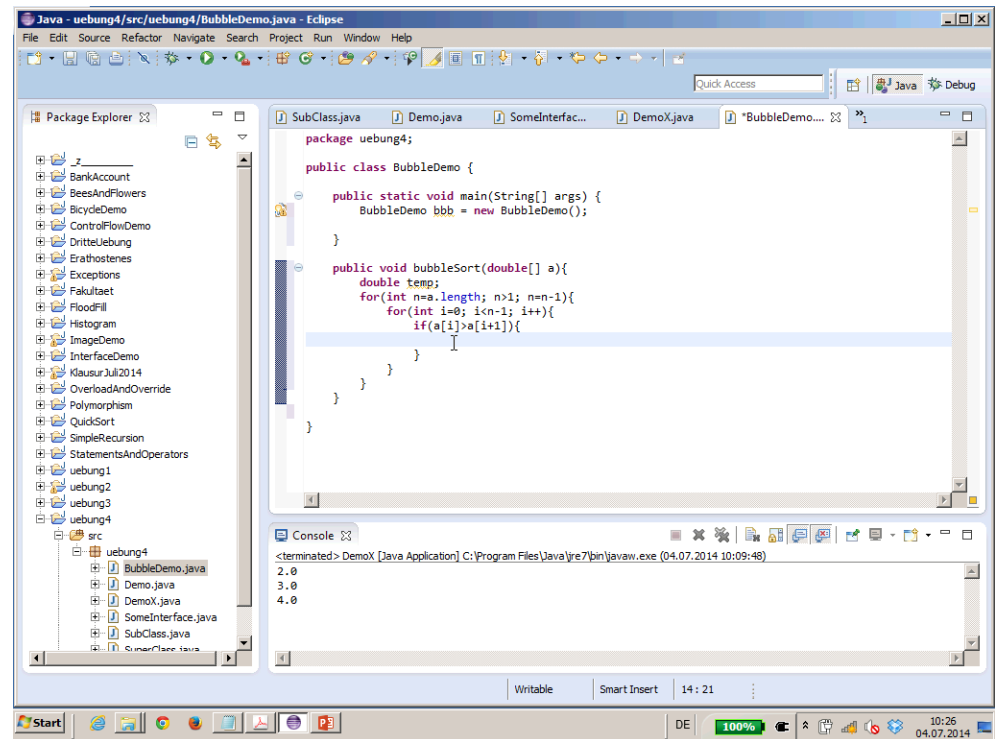
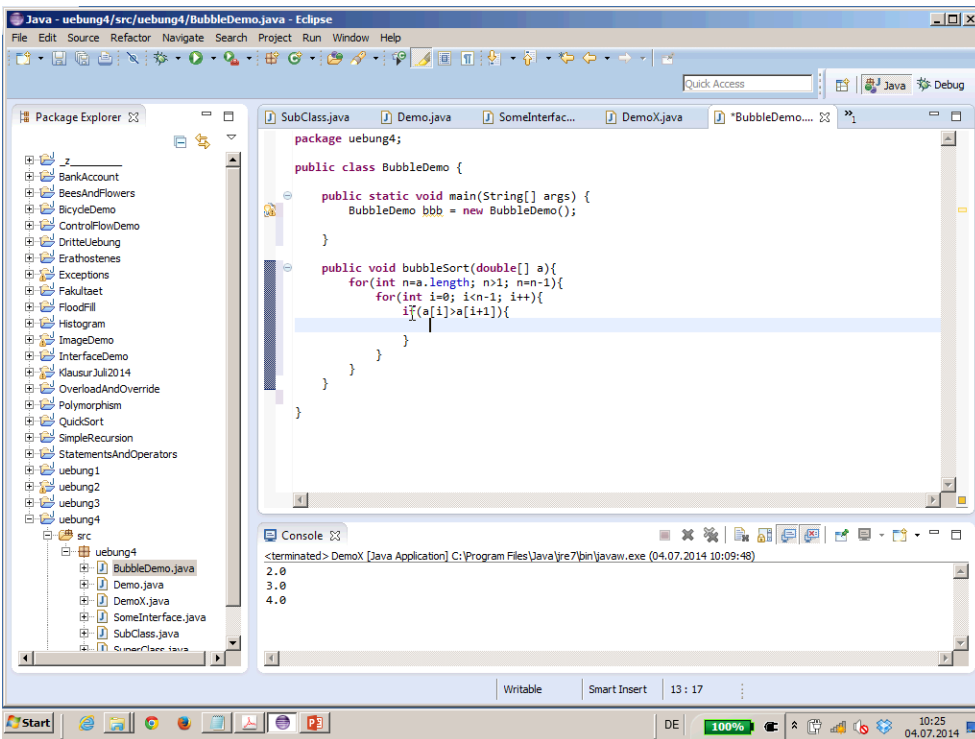


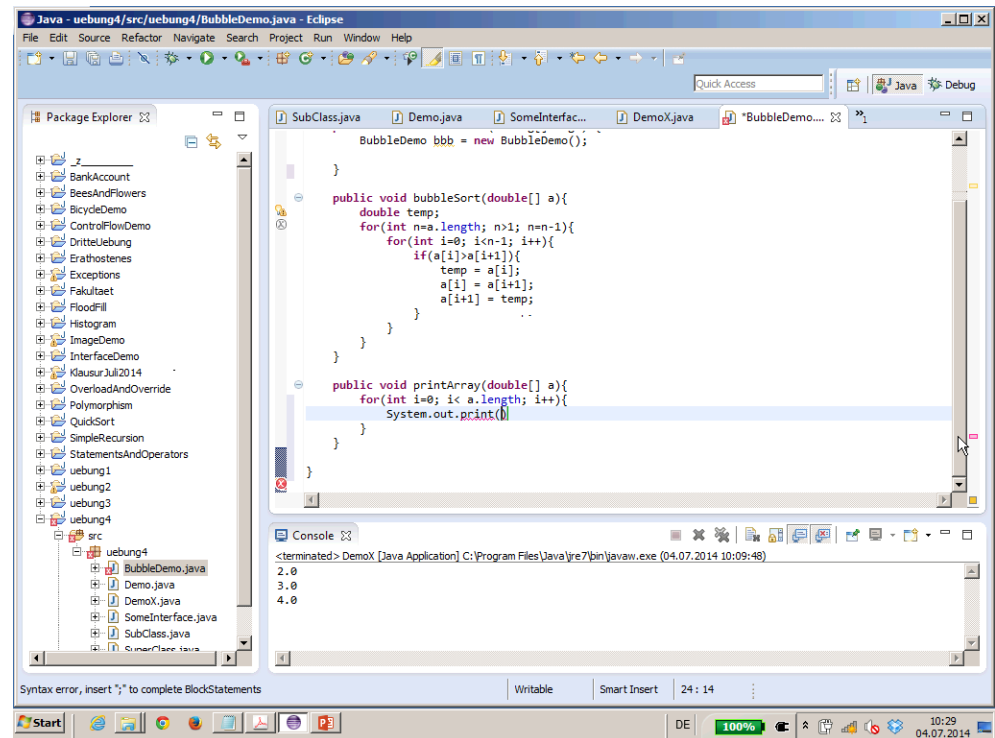
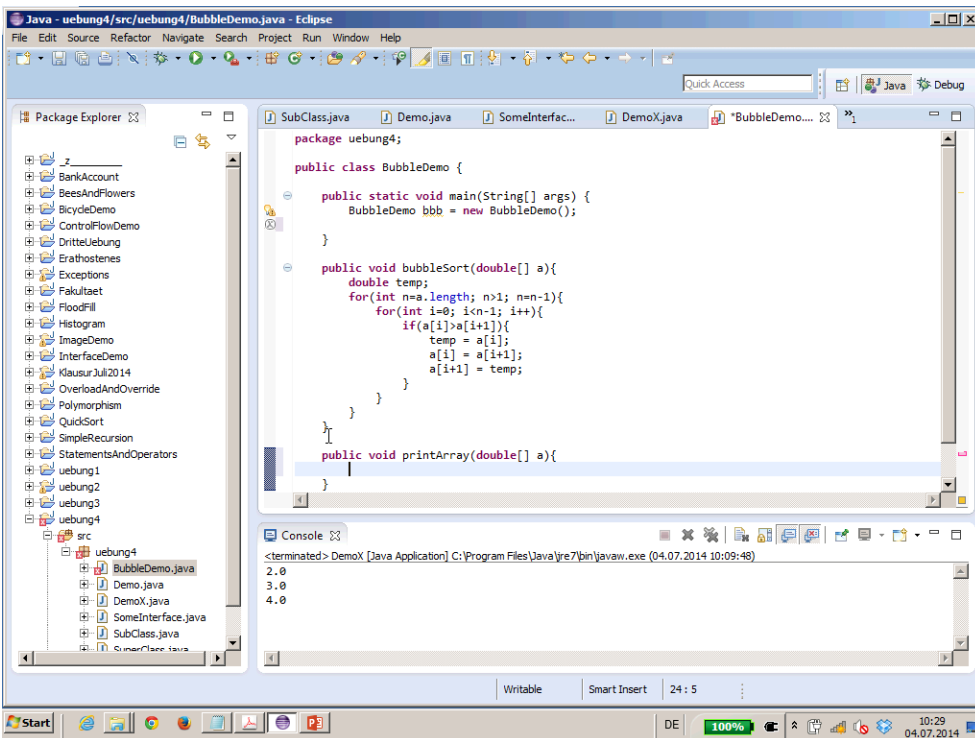
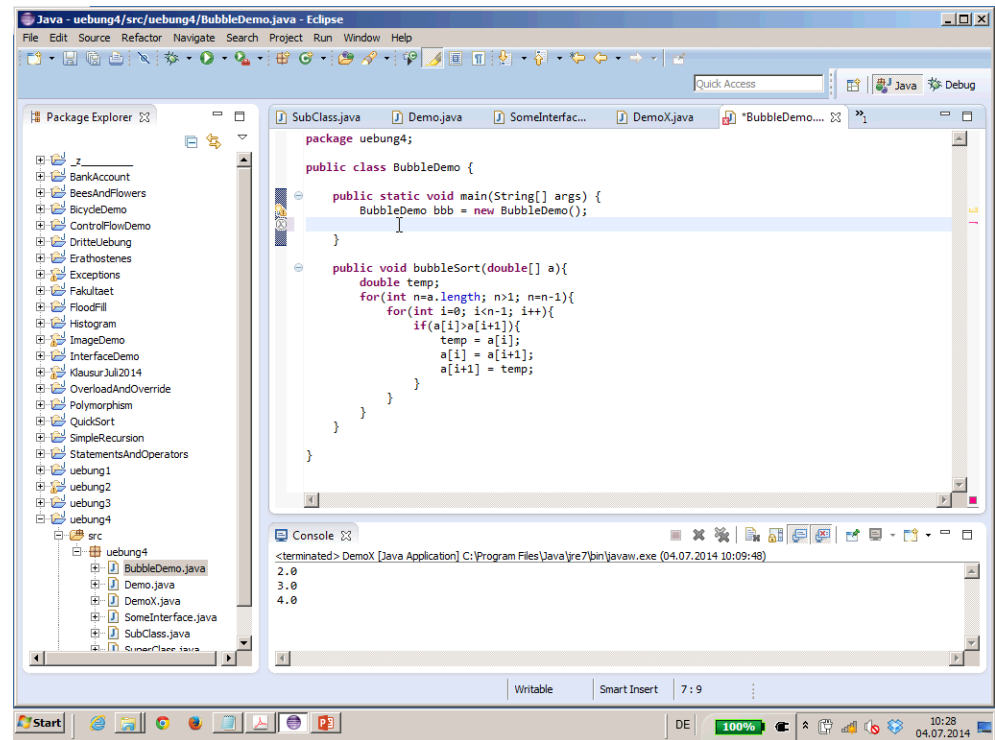
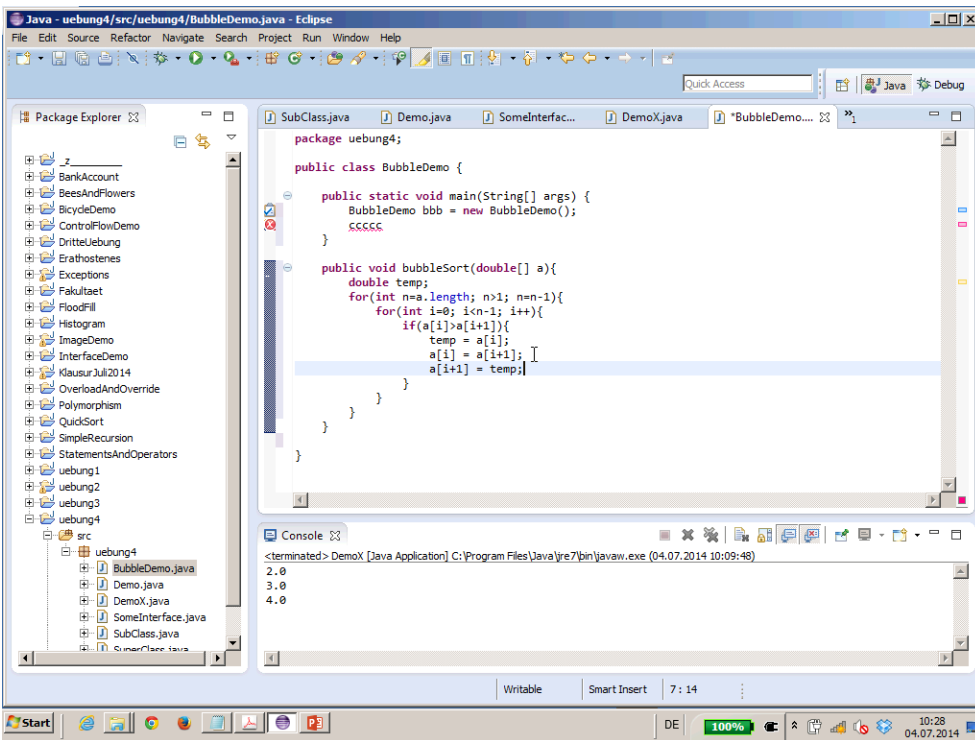


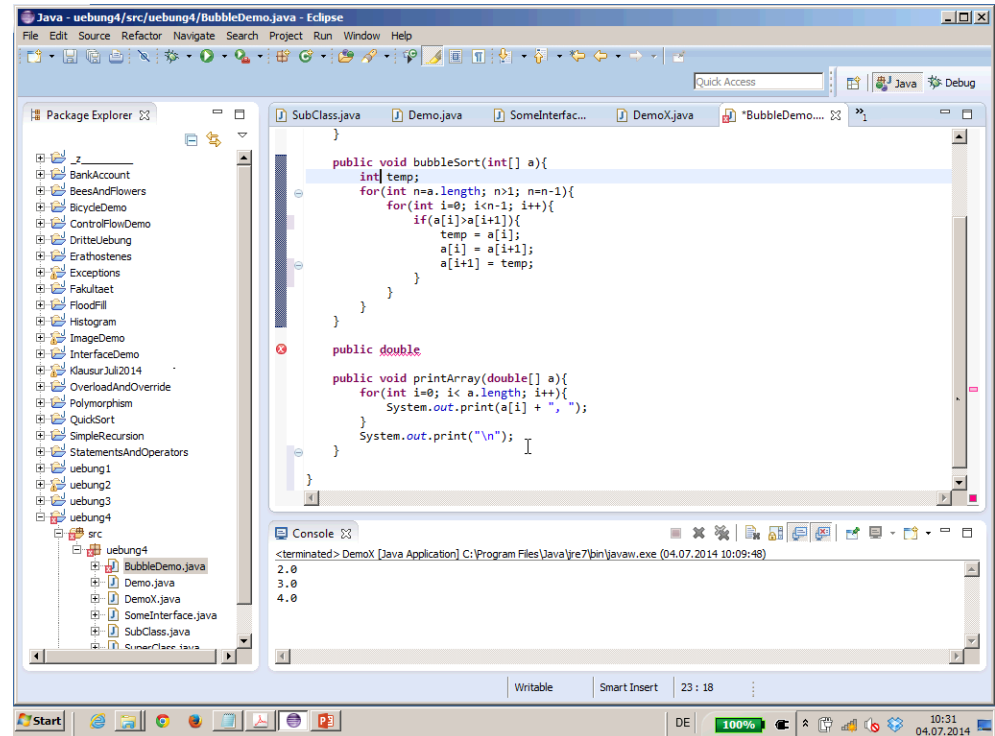
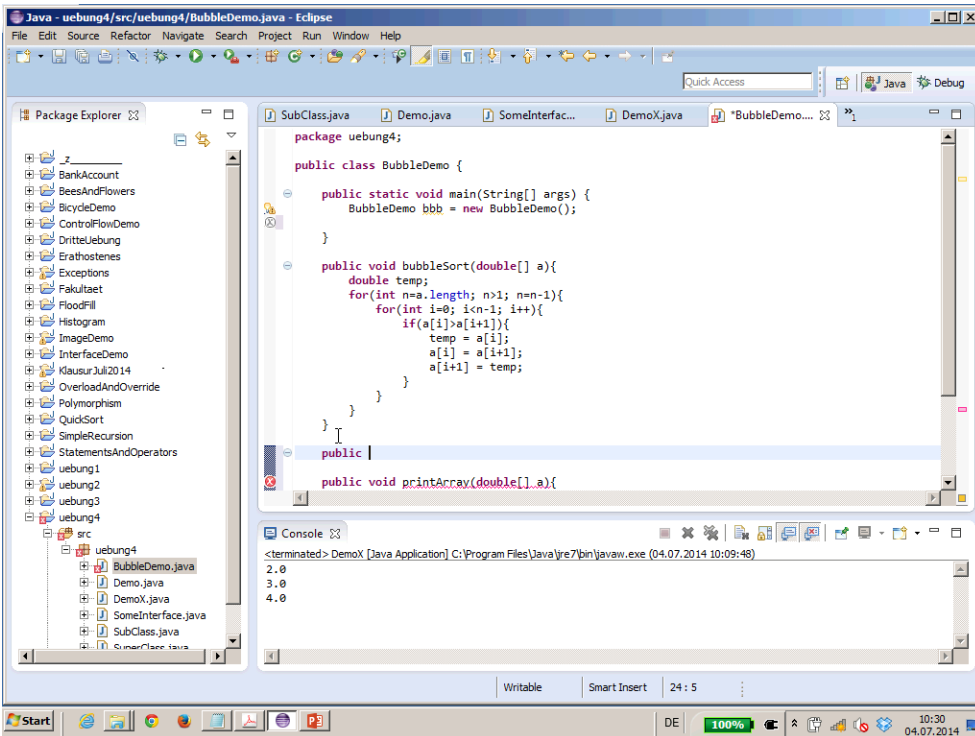
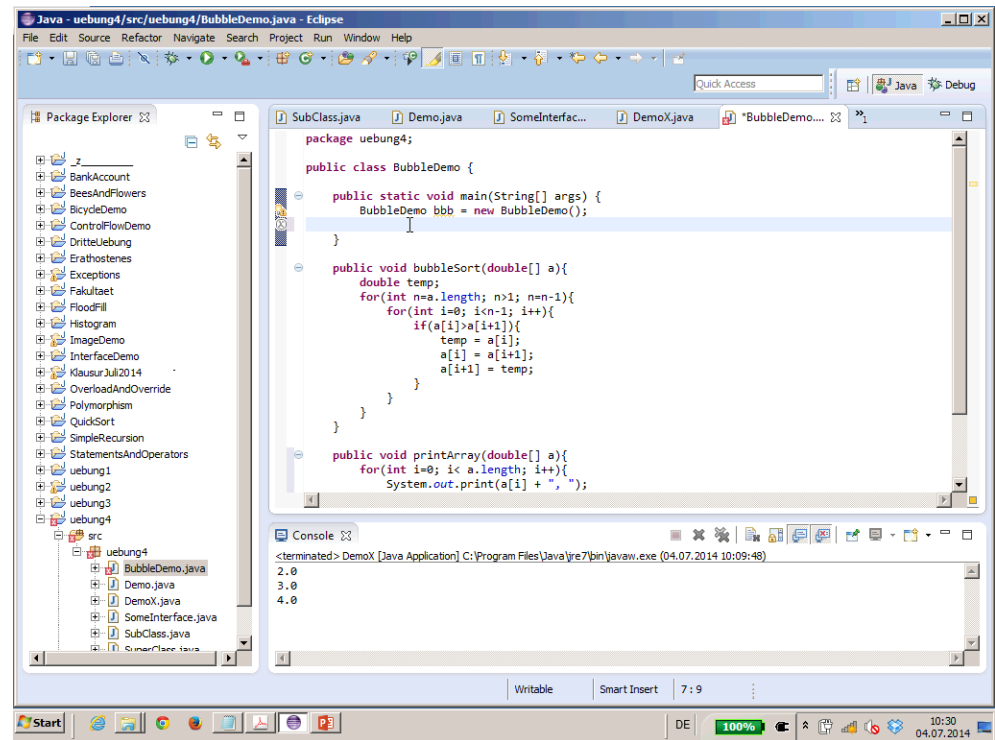
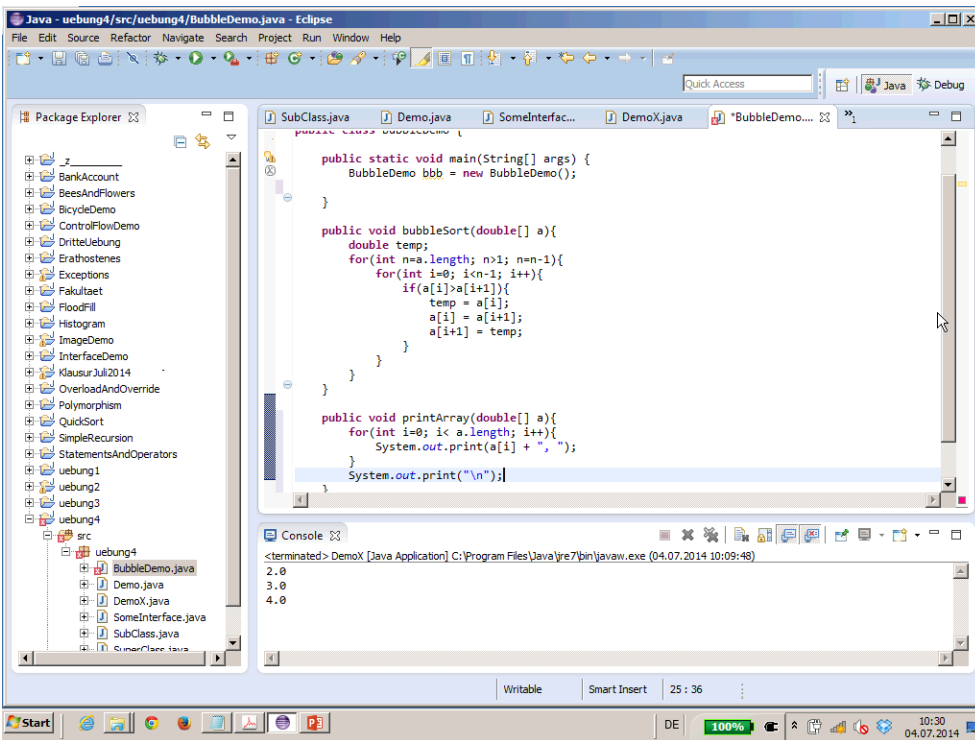


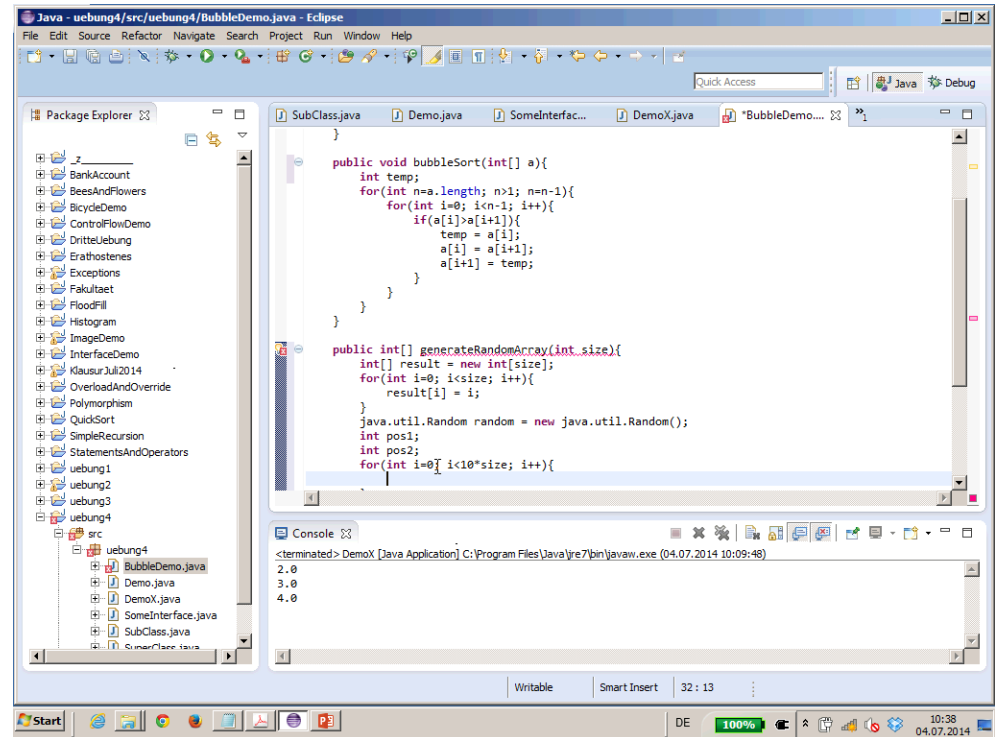
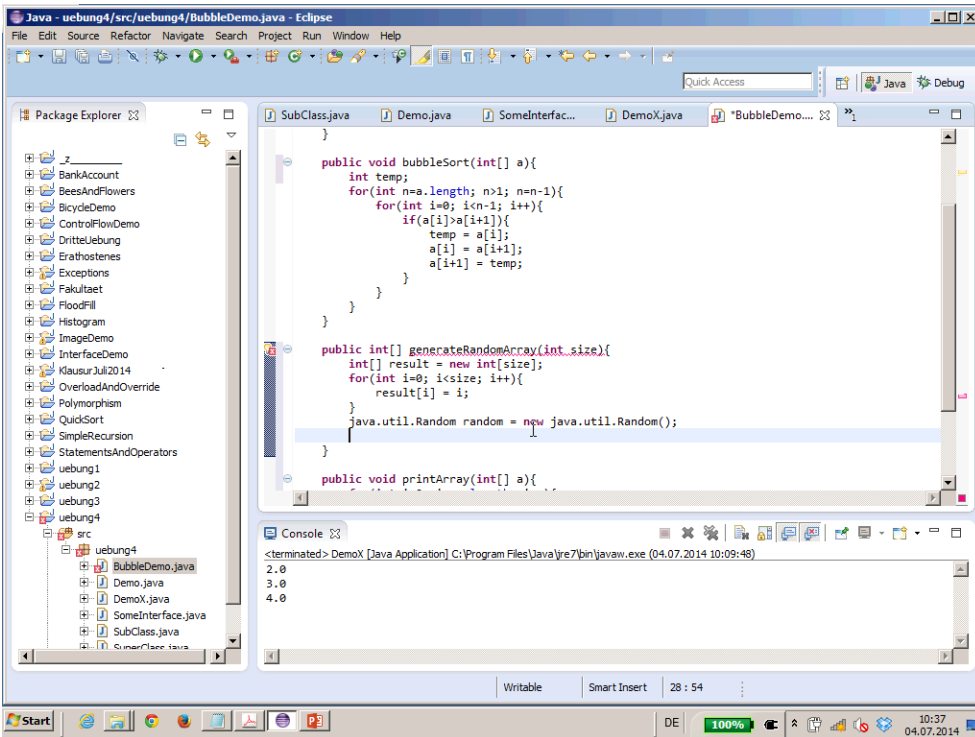
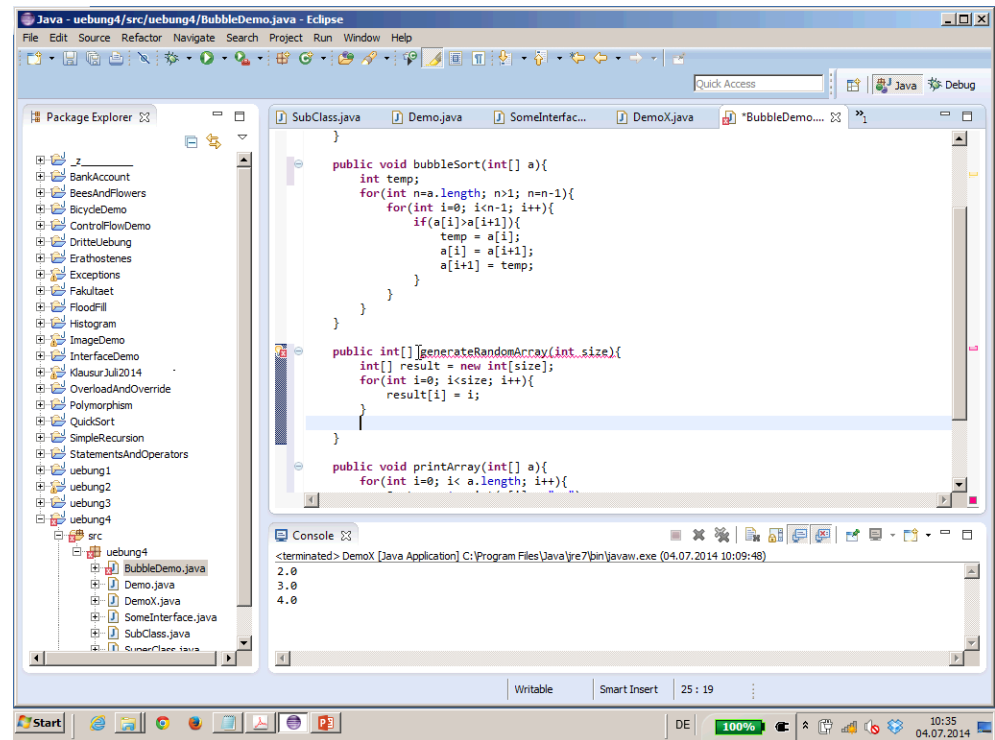
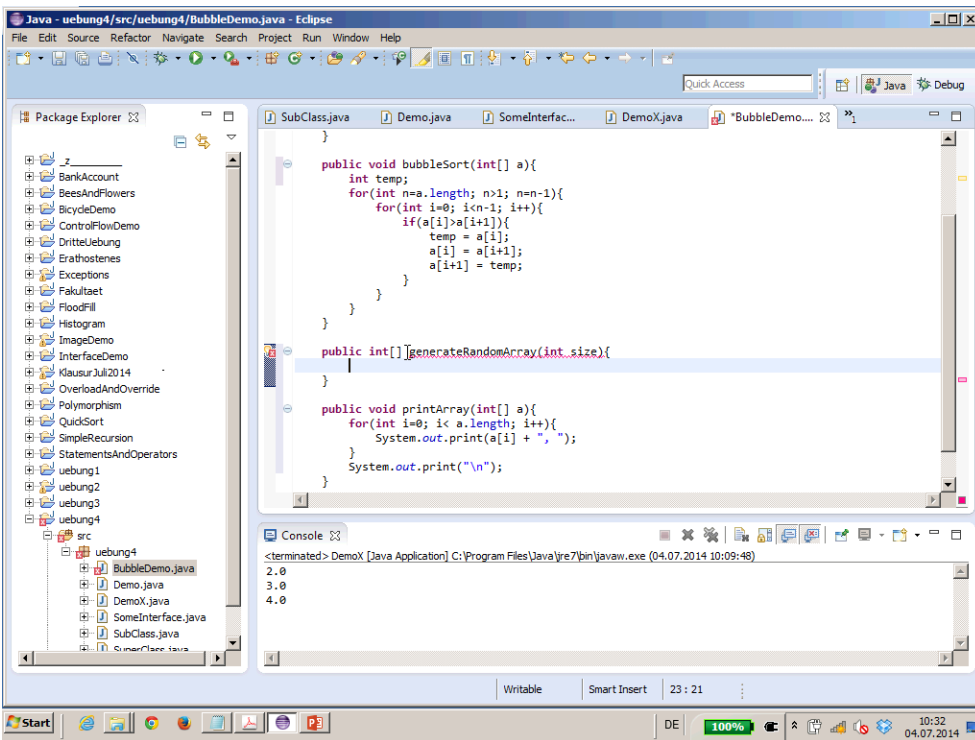




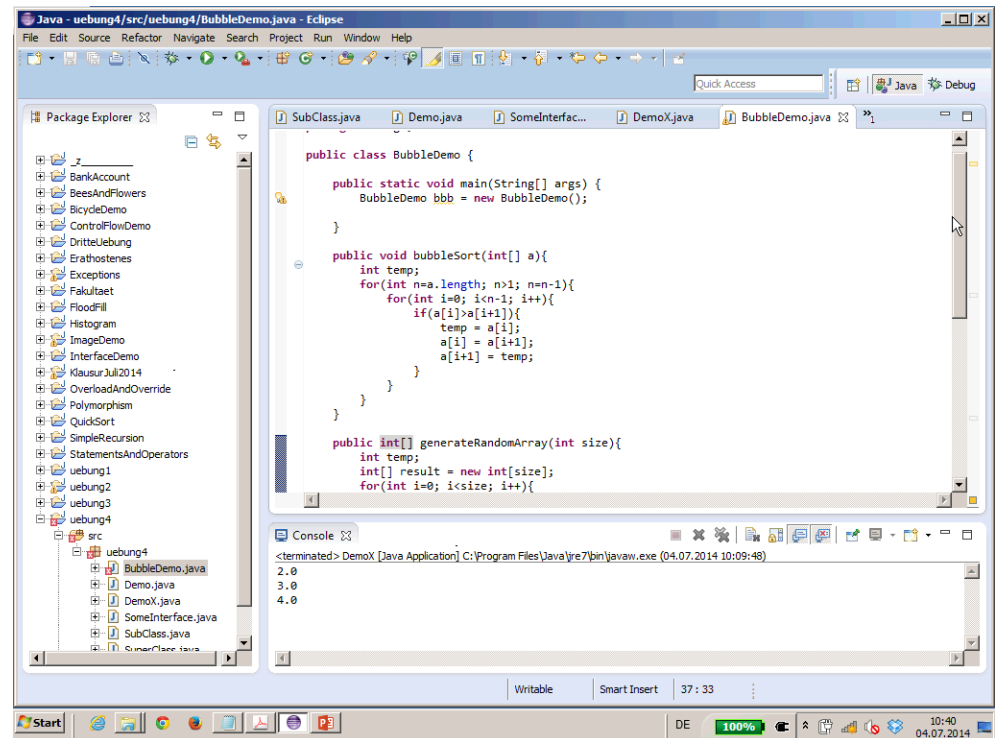
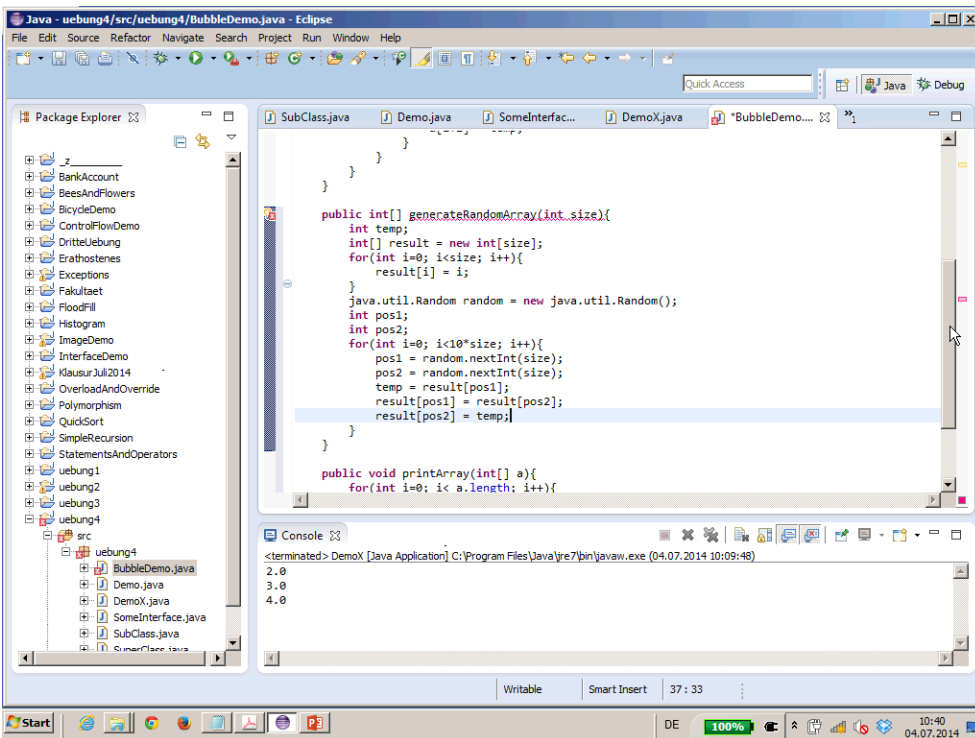
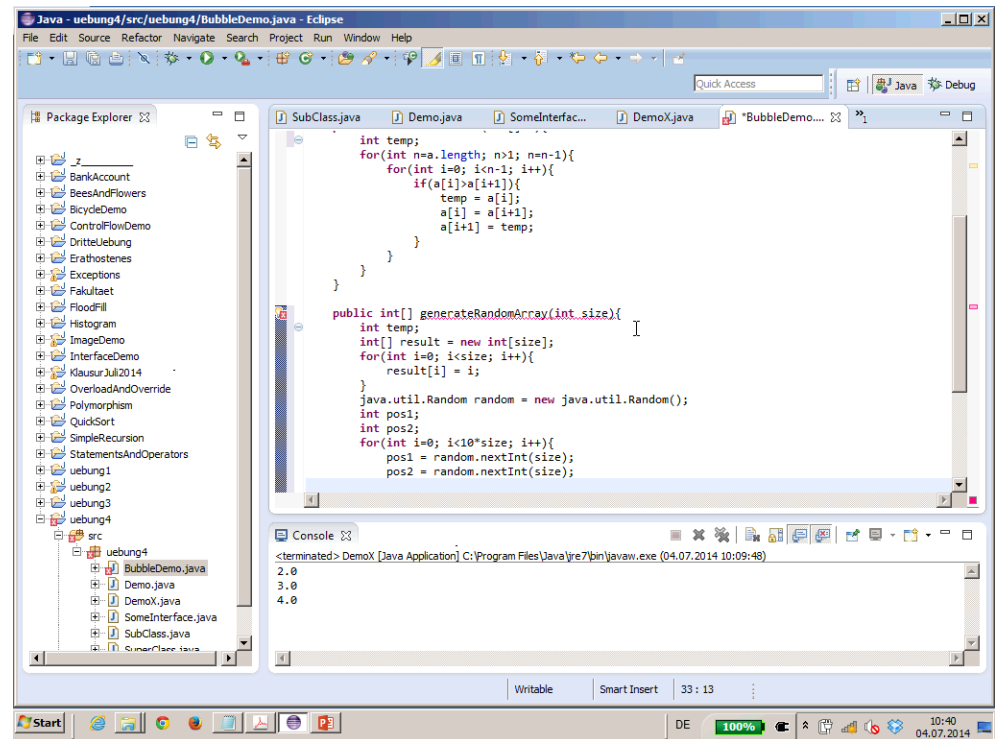
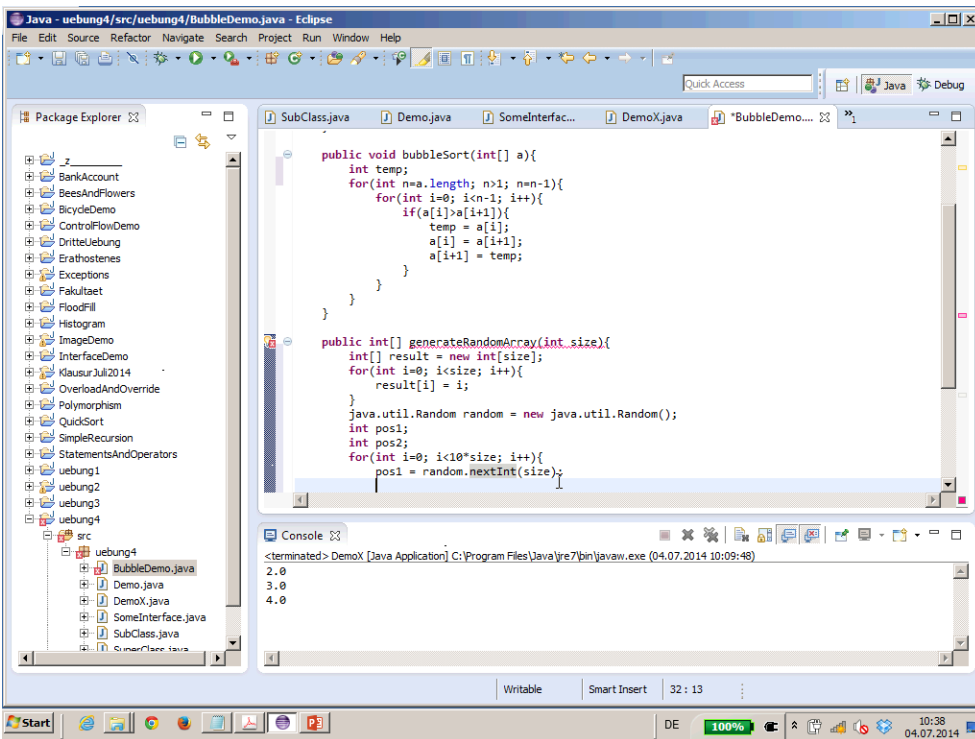


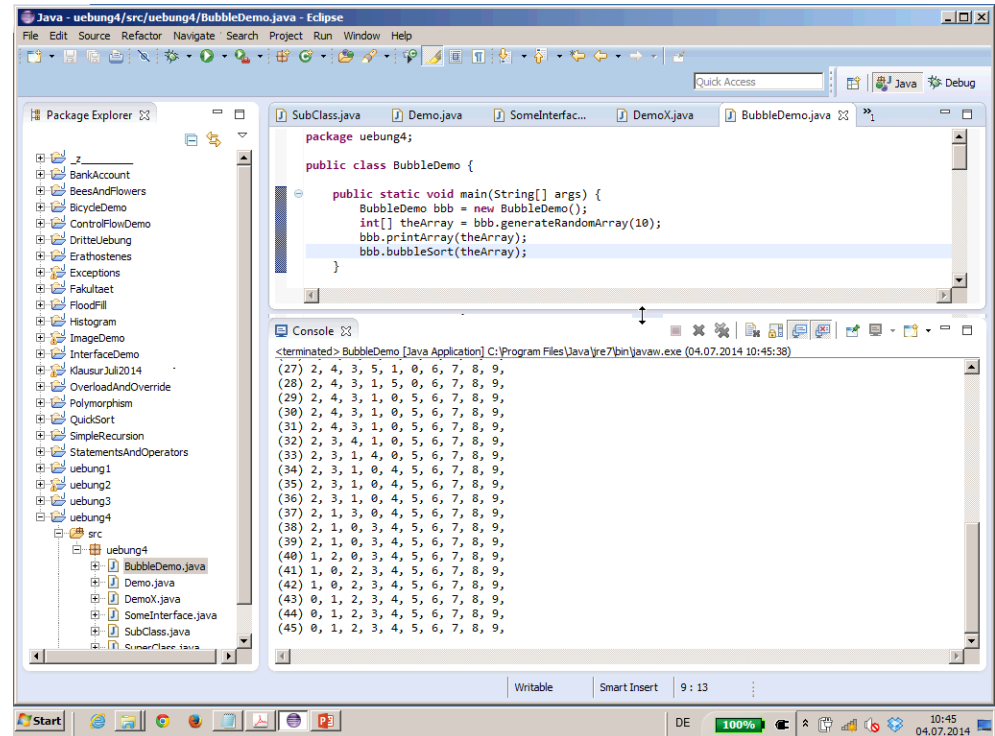
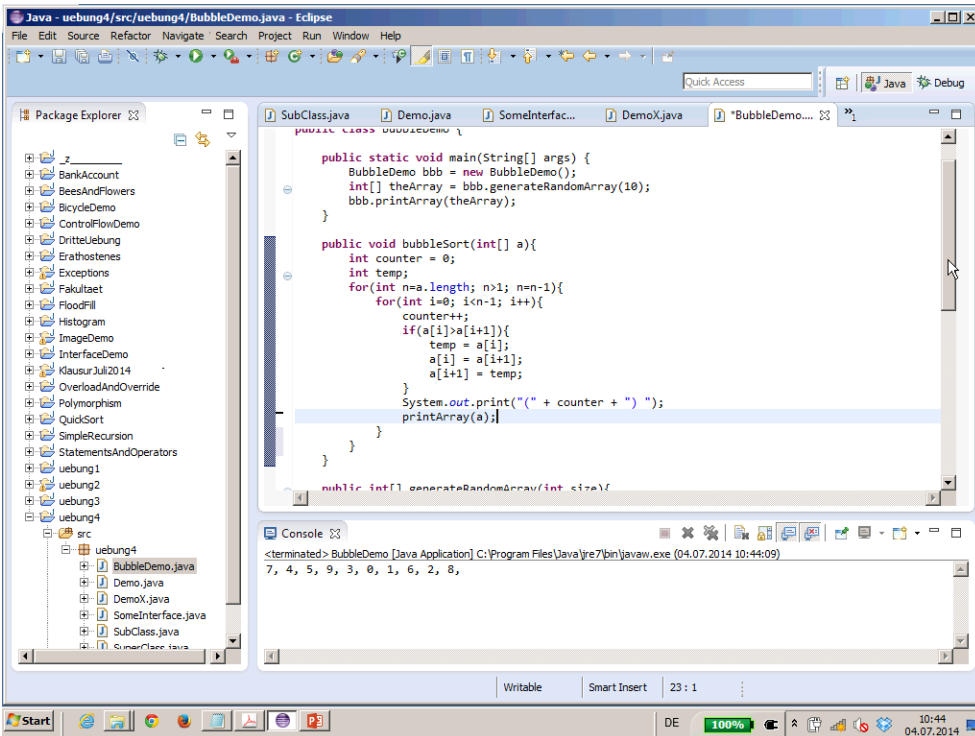
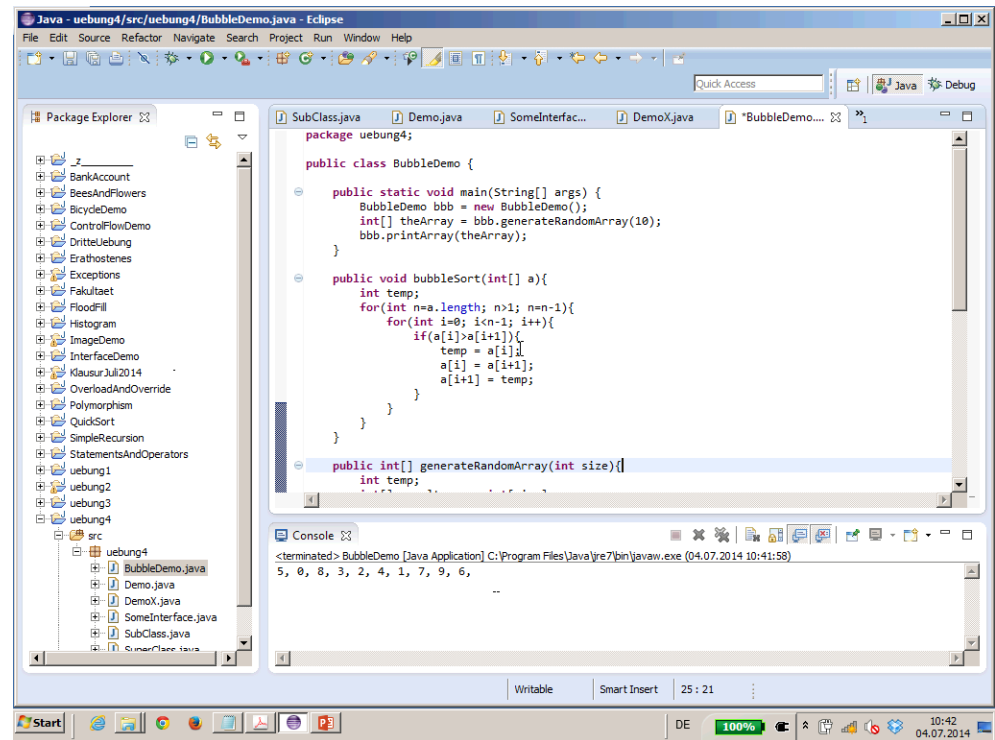
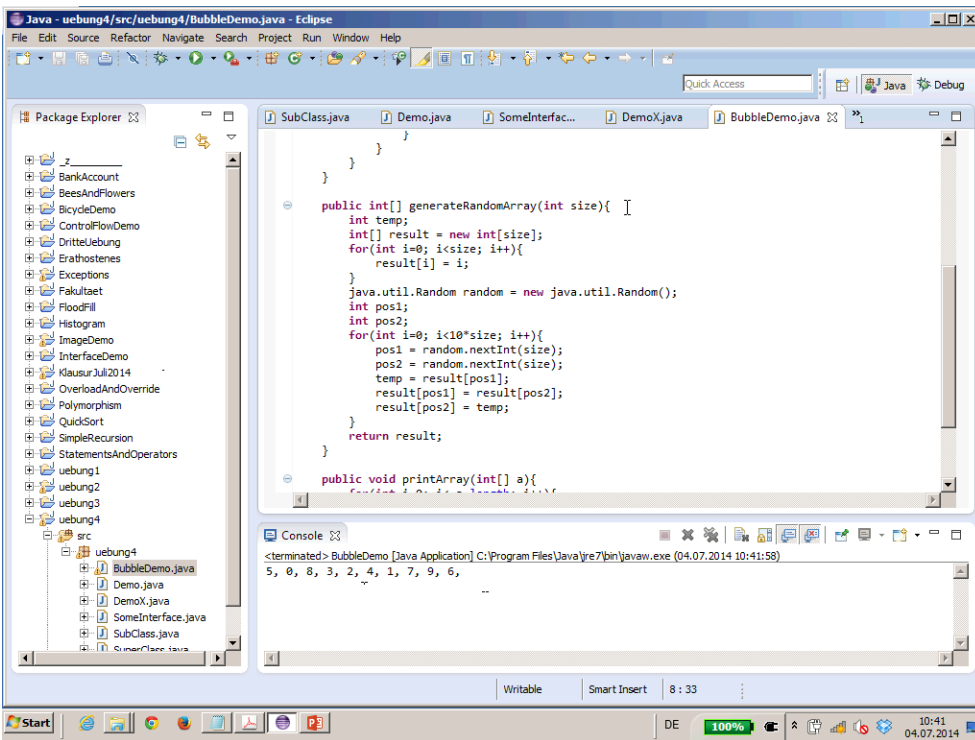












Java - uebung4/src/uebung4/BubbleDemo.java - Eclipse

File Edit Source Refactor Navigate Search Project Run Window Help

Quick Access Java Debug

Package Explorer

- BankAccount
- BeesAndFlowers
- BicycleDemo
- ControlFlowDemo
- DritteUebung
- Erathostenes
- Exceptions
- Fakultaet
- FloodFill
- Histogram
- ImageDemo
- InterfaceDemo
- Klausur.Juli2014
- OverloadAndOverride
- Polymorphism
- QuickSort
- SimpleRecursion
- StatementsAndOperators
- uebung1
- uebung2
- uebung3
- uebung4
  - src
    - uebung4
      - BubbleDemo.java
      - Demo.java
      - DemoX.java
      - SomeInterface.java
      - SubClass.java

SubClass.java Demo.java SomeInterfac... DemoX.java BubbleDemo.java

```
package uebung4;
```

Console

```
<terminated> BubbleDemo [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (04.07.2014 10:45:38)
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(3) 4, 5, 6, 8, 2, 9, 3, 1, 0, 7,
(4) 4, 5, 6, 2, 8, 9, 3, 1, 0, 7,
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(21) 4, 2, 5, 3, 6, 1, 0, 7, 8, 9,
(22) 4, 2, 5, 3, 1, 6, 0, 7, 8, 9,
(23) 4, 2, 5, 3, 1, 0, 6, 7, 8, 9,
(24) 4, 2, 5, 3, 1, 0, 6, 7, 8, 9,
(25) 2, 4, 5, 3, 1, 0, 6, 7, 8, 9,
(26) 2, 4, 5, 3, 1, 0, 6, 7, 8, 9,
(27) 2, 4, 3, 5, 1, 0, 6, 7, 8, 9,
(28) 2, 4, 3, 1, 5, 0, 6, 7, 8, 9,
(29) 2, 4, 3, 1, 0, 5, 6, 7, 8, 9
```

Start DE 100% 10:46 04.07.2014

Java - uebung4/src/uebung4/BubbleDemo.java - Eclipse

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      - Demo.java
      - DemoX.java
      - SomeInterface.java
      - SubClass.java

SubClass.java Demo.java SomeInterfac... DemoX.java BubbleDemo.java

```
package uebung4;
```

Console

```
<terminated> BubbleDemo [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (04.07.2014 10:45:38)
6, 4, 5, 8, 2, 9, 3, 1, 0, 7,
(1) 4, 6, 5, 8, 2, 9, 3, 1, 0, 7,
(2) 4, 5, 6, 8, 2, 9, 3, 1, 0, 7,
(3) 4, 5, 6, 8, 2, 9, 3, 1, 0, 7,
(4) 4, 5, 6, 2, 8, 9, 3, 1, 0, 7,
(5) 4, 5, 6, 2, 8, 9, 3, 1, 0, 7,
(6) 4, 5, 6, 2, 8, 3, 9, 1, 0, 7,
(7) 4, 5, 6, 2, 8, 3, 1, 9, 0, 7,
(8) 4, 5, 6, 2, 8, 3, 1, 0, 9, 7,
(9) 4, 5, 6, 2, 8, 3, 1, 0, 7, 9,
(10) 4, 5, 6, 2, 8, 3, 1, 0, 7, 9,
(11) 4, 5, 6, 2, 8, 3, 1, 0, 7, 9,
(12) 4, 5, 2, 6, 8, 3, 1, 0, 7, 9,
(13) 4, 5, 2, 6, 8, 3, 1, 0, 7, 9,
(14) 4, 5, 2, 6, 3, 8, 1, 0, 7, 9,
(15) 4, 5, 2, 6, 3, 1, 8, 0, 7, 9,
(16) 4, 5, 2, 6, 3, 1, 0, 8, 7, 9,
(17) 4, 5, 2, 6, 3, 1, 0, 7, 8, 9,
(18) 4, 5, 2, 6, 3, 1, 0, 7, 8, 9,
(19) 4, 2, 5, 6, 3, 1, 0, 7, 8, 9,
(20) 4, 2, 5, 6, 3, 1, 0, 7, 8, 9,
(21) 4, 2, 5, 3, 6, 1, 0, 7, 8, 9,
(22) 4, 2, 5, 3, 1, 6, 0, 7, 8, 9,
(23) 4, 2, 5, 3, 1, 0, 6, 7, 8, 9,
(24) 4, 2, 5, 3, 1, 0, 6, 7, 8, 9,
(25) 2, 4, 5, 3, 1, 0, 6, 7, 8, 9,
(26) 2, 4, 5, 3, 1, 0, 6, 7, 8, 9,
(27) 2, 4, 3, 5, 1, 0, 6, 7, 8, 9,
(28) 2, 4, 3, 1, 5, 0, 6, 7, 8, 9,
(29) 2, 4, 3, 1, 0, 5, 6, 7, 8, 9
```

Start DE 100% 10:47 04.07.2014