

Fachhochschule Bielefeld

Campus Minden

Objektorientierte Programmierung

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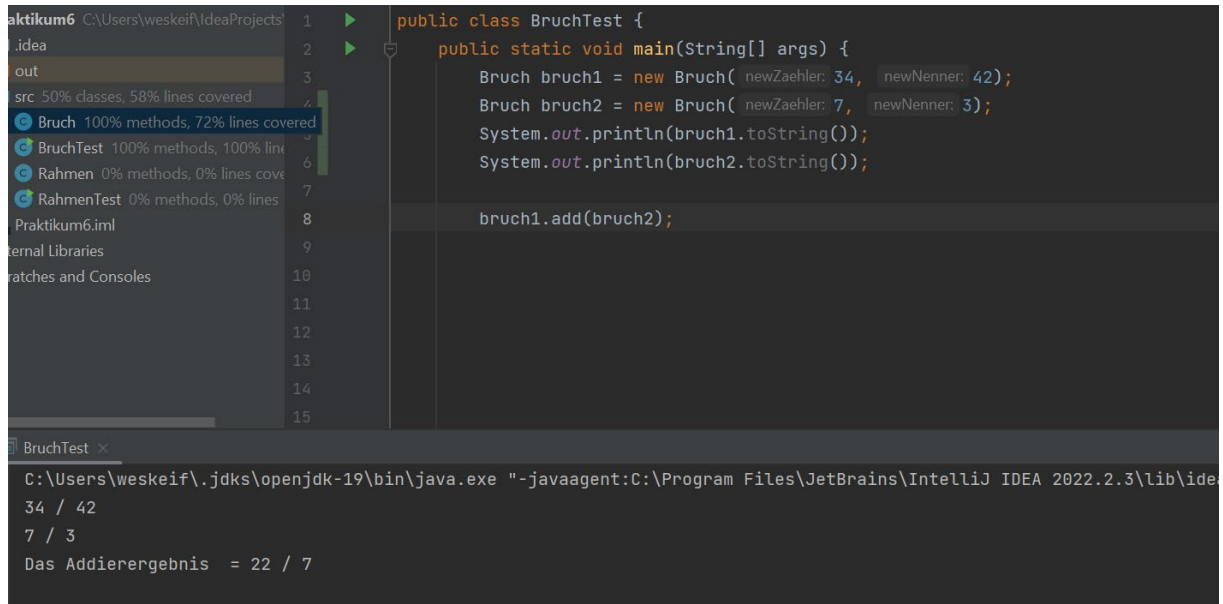
Inhalt:

5. Aufgabe

(a). Bruch -2-
(b). Rahmen -3-
(c). Temperaturgraph -5-

(a). Bruch.

Bruch add(Bruch f)



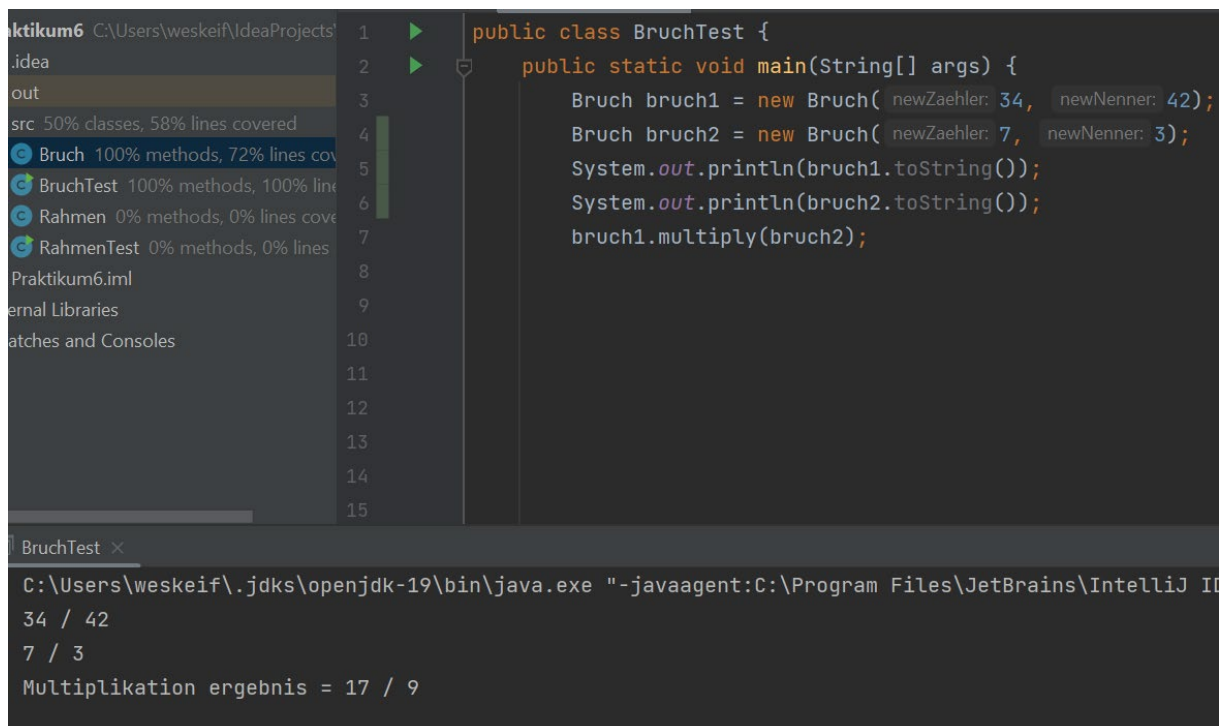
```
1 public class BruchTest {
2     public static void main(String[] args) {
3         Bruch bruch1 = new Bruch( newZaehler: 34, newNenner: 42);
4         Bruch bruch2 = new Bruch( newZaehler: 7, newNenner: 3);
5         System.out.println(bruch1.toString());
6         System.out.println(bruch2.toString());
7
8         bruch1.add(bruch2);
9
10
11
12
13
14
15
```

BruchTest x

C:\Users\weskeif\.jdk\openjdk-19\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.2.3\lib\ide

34 / 42
7 / 3
Das Addierergebnis = 22 / 7

Bruch multiply(Bruch f)



```
1 public class BruchTest {
2     public static void main(String[] args) {
3         Bruch bruch1 = new Bruch( newZaehler: 34, newNenner: 42);
4         Bruch bruch2 = new Bruch( newZaehler: 7, newNenner: 3);
5         System.out.println(bruch1.toString());
6         System.out.println(bruch2.toString());
7         bruch1.multiply(bruch2);
8
9
10
11
12
13
14
15
```

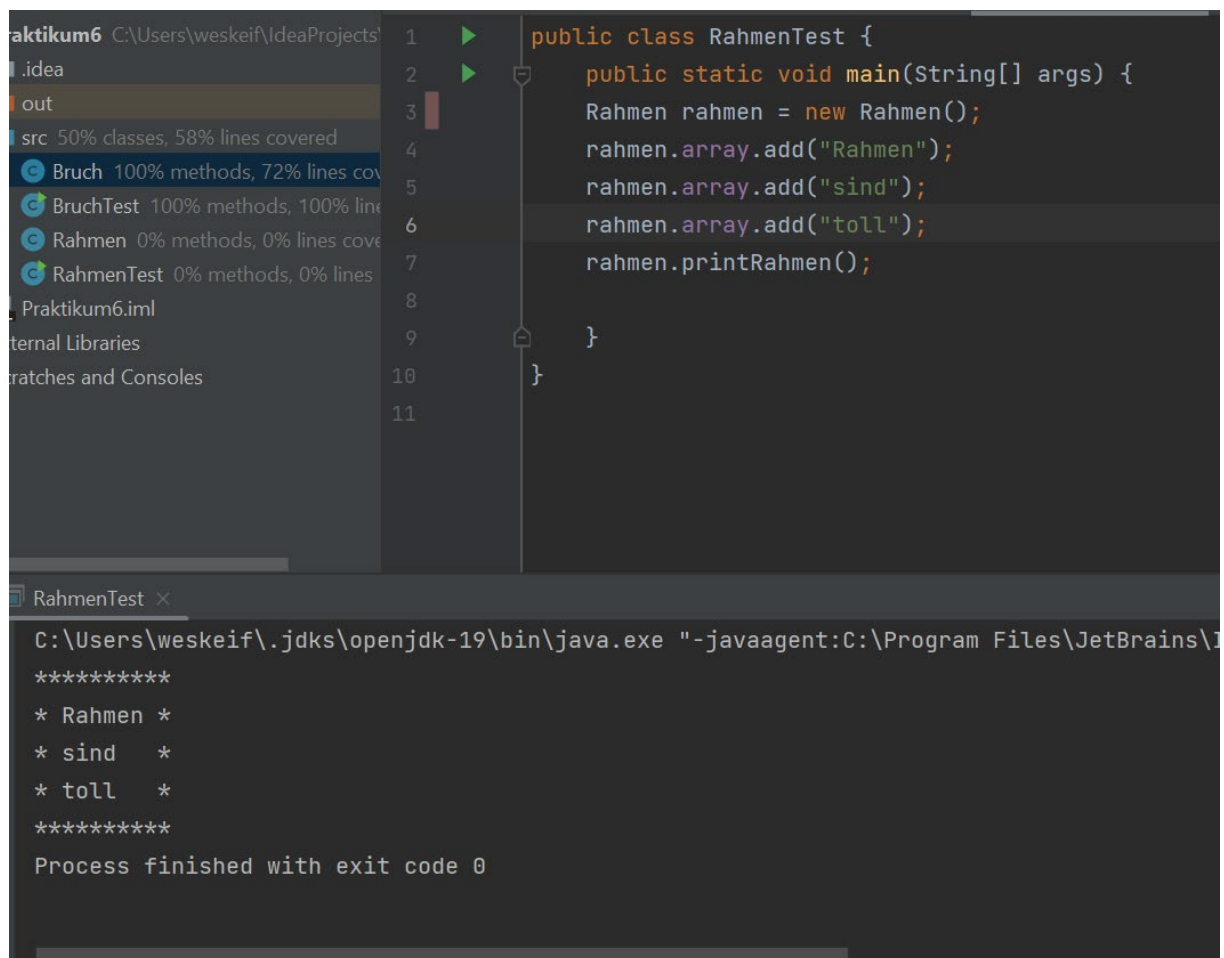
BruchTest x

C:\Users\weskeif\.jdk\openjdk-19\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ ID

34 / 42
7 / 3
Multiplikation ergebnis = 17 / 9

(b). Rahmen

Für Beispiel : “ Rahmen sind Toll “



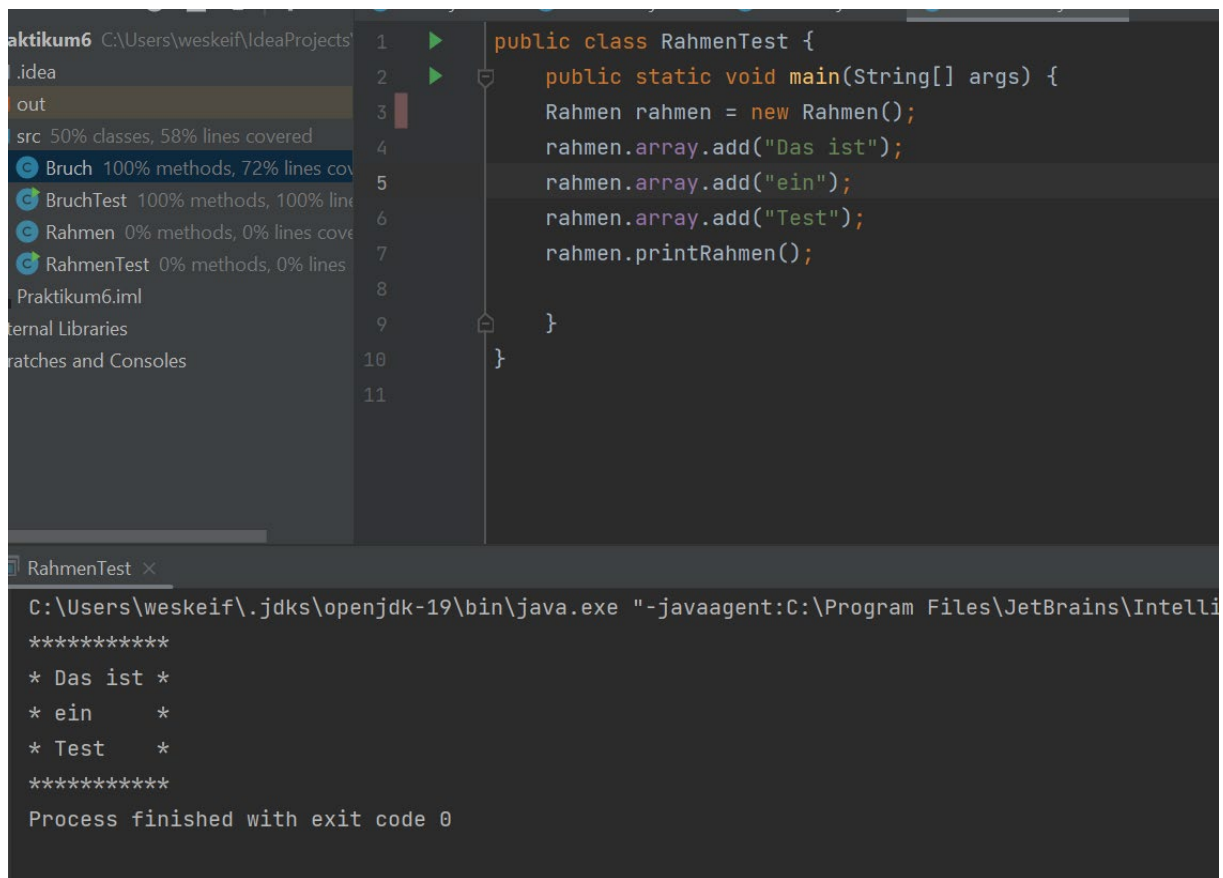
The screenshot shows an IDE with a project named 'Praktikum6'. The left sidebar displays a file explorer with 'src' containing 50% classes and 58% lines covered. Below it, a list of classes shows 'Bruch' (100% methods, 72% lines covered), 'BruchTest' (100% methods, 100% lines covered), 'Rahmen' (0% methods, 0% lines covered), and 'RahmenTest' (0% methods, 0% lines covered). The main editor displays the code for 'RahmenTest.java':

```
1 public class RahmenTest {  
2     public static void main(String[] args) {  
3         Rahmen rahmen = new Rahmen();  
4         rahmen.array.add("Rahmen");  
5         rahmen.array.add("sind");  
6         rahmen.array.add("toll");  
7         rahmen.printRahmen();  
8     }  
9 }  
10  
11 }
```

The bottom panel shows the execution output for 'RahmenTest':

```
C:\Users\weskeif\.jdk\openjdk-19\bin\java.exe "-javaagent:C:\Program Files\JetBrains\Idea\bin\idea_rt.jar" C:\Users\weskeif\IdeaProjects\Praktikum6\src\main\java\RahmenTest.java  
*****  
* Rahmen *  
* sind *  
* toll *  
*****  
Process finished with exit code 0
```

Für Beispiel : “ Das ist ein Test “



The screenshot shows an IDE with a project named 'Praktikum6'. The left sidebar displays a file explorer with 'src' containing 50% classes and 58% lines covered. Below it, a list of test results shows 'Bruch' and 'BruchTest' at 100% coverage, while 'Rahmen' and 'RahmenTest' are at 0%. The main editor displays the code for 'RahmenTest.java':

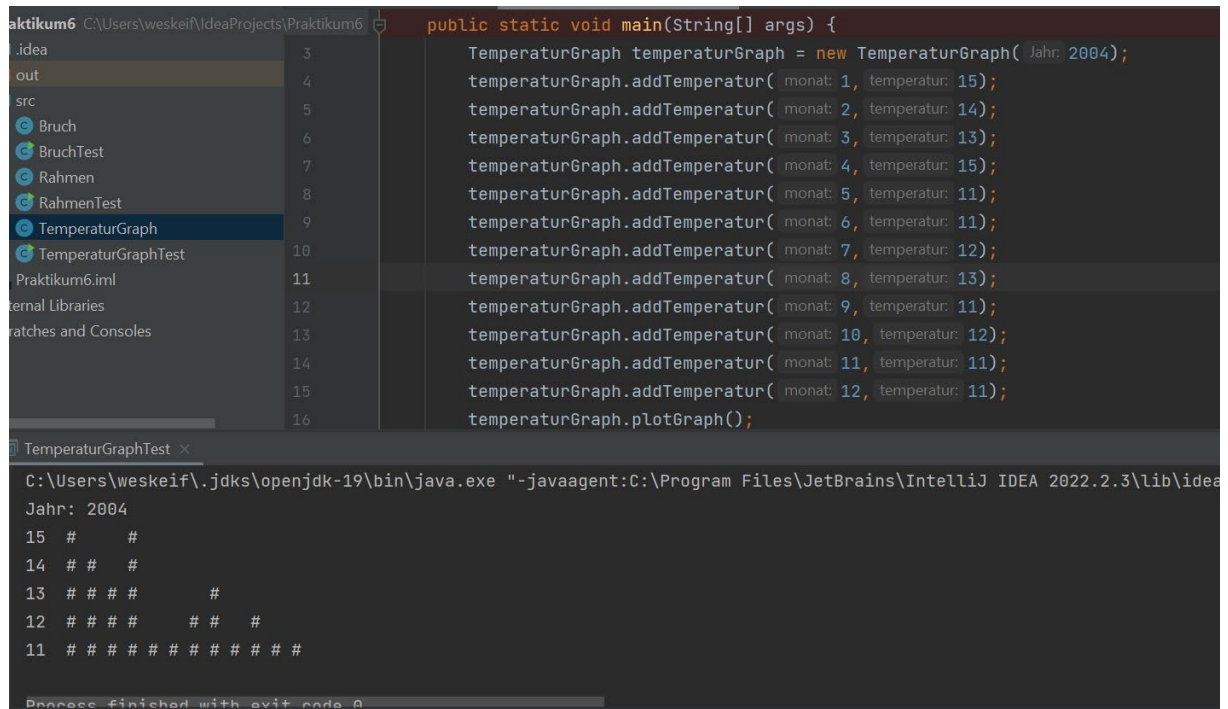
```
1 public class RahmenTest {  
2     public static void main(String[] args) {  
3         Rahmen rahmen = new Rahmen();  
4         rahmen.array.add("Das ist");  
5         rahmen.array.add("ein");  
6         rahmen.array.add("Test");  
7         rahmen.printRahmen();  
8     }  
9 }  
10  
11
```

Below the code editor, the 'RahmenTest' tab is active, showing the execution output in a console window:

```
C:\Users\weskeif\.jdk\openjdk-19\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ  
*****  
* Das ist *  
* ein    *  
* Test  *  
*****  
Process finished with exit code 0
```

(c). Temperaturgraph

Für das Jahr 2004



The screenshot shows the IntelliJ IDEA IDE. The left sidebar displays a project structure for 'Praktikum6' with files like 'Bruch', 'BruchTest', 'Rahmen', 'RahmenTest', 'TemperaturGraph', and 'TemperaturGraphTest'. The main editor window shows the 'main' method of a class, which creates a 'TemperaturGraph' object for the year 2004 and adds temperature data for each month. The output window at the bottom shows the execution of 'TemperaturGraphTest', displaying a text-based representation of a temperature graph for the year 2004.

```
public static void main(String[] args) {
    TemperaturGraph temperaturGraph = new TemperaturGraph( Jahr: 2004);
    temperaturGraph.addTemperatur( monat: 1, temperatur: 15);
    temperaturGraph.addTemperatur( monat: 2, temperatur: 14);
    temperaturGraph.addTemperatur( monat: 3, temperatur: 13);
    temperaturGraph.addTemperatur( monat: 4, temperatur: 15);
    temperaturGraph.addTemperatur( monat: 5, temperatur: 11);
    temperaturGraph.addTemperatur( monat: 6, temperatur: 11);
    temperaturGraph.addTemperatur( monat: 7, temperatur: 12);
    temperaturGraph.addTemperatur( monat: 8, temperatur: 13);
    temperaturGraph.addTemperatur( monat: 9, temperatur: 11);
    temperaturGraph.addTemperatur( monat: 10, temperatur: 12);
    temperaturGraph.addTemperatur( monat: 11, temperatur: 11);
    temperaturGraph.addTemperatur( monat: 12, temperatur: 11);
    temperaturGraph.plotGraph();
}
```

TemperaturGraphTest ×

C:\Users\weskeif\.jdk\openjdk-19\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.2.3\lib\idea

Jahr: 2004

```
15 # #
14 # # #
13 # # # #
12 # # # # #
11 # # # # # # # # #
```

Process finished with 'exit' code 0