

Vorlesung 06

Aufgaben zu Kapitel 6

Welche Ausgabe erzeugt das folgende Fragment für die drei Fälle:

- `int num1 = 9, num2 = 10;`
- `int num1 = 11, num2 = 10;`
- `int num1 = 13, num2 = 10;`

```
if (num1 < num2)
    System.out.println("rot");
else
    if ((num1 - 2) < num2)
        System.out.println("blau");
    else
        System.out.println("weiss");
System.out.println("gelb");
```

Copy

rot
gelb

blau
gelb

weiss
gelb

Copy

Übersetzen Sie in eine switch-Anweisung:

```
if (num == 1)
    c = 'A';
else
    if (num == 2)
        c = 'B';
    else
        if (num == 3)
```

```

        c = 'C';
    else
        c = 'Z';
Copy
switch (num) {
    1 : c = 'A'; break;
    2 : c = 'B'; break;
    3 : c = 'C'; break;
    default : z = 'Z'; break;
}
Copy

```

Übersetzen in einen Conditional

```

System.out.println((val <= 100 ? "nicht " : "") + "grösser als 100.");
Copy

```

do-loops

```

int low = 0, high = 5;
do {
    low++;
    System.out.println(low);
} while (low < high);
Copy

```

```

1
2
3
4
5
Copy

```

```

int low = 5, high = 5;
do {
    System.out.println(low);
    low++;
} while (low < high);
Copy
5
Copy

```

Welche Ausgaben erzeugen folgende Schleifen?

```

int max = 6;
for (int i = 0; i < max; i++)

```

```

        System.out.println(max + i);
Copy
6
7
8
9
10
11
Copy
int val = 0;
int num;
for (num = 10; num <= 40; num+=10)
    val += num;
System.out.println(num);
System.out.println(val);
Copy
50
100
Copy
for (int i = 0; i <= 3; i++) {
    for (int j = i + 1; j > 0; j--)
        System.out.print(i * j + " ");
    System.out.println();
}
Copy
0
2 1
6 4 2
12 9 6 3
Copy

```

Machen Sie die Klasse Box generisch

```

public class Box {

    private String content;

    public Box(String content) {
        this.content = content;
    }

    public String getContent() {
        return this.content;
    }
}

```

```

    }
}
Copy
public class Box<T> {

    private T content;

    public Box(T content) {
        this.content = content;
    }

    public T getContent() {
        return this.content;
    }
}
Copy

```

- Instanzieren Sie eine Liste boxes, welche Box<String> Objekte aufnehmen kann.

```

ArrayList<Box<String>> boxes = new ArrayList<Box<String>>;

for (Box<String> b : boxes)
    System.out.println(b.getContent())
Copy

```

Ergänzen Sie die Klasse Pasta mit einer Methode equals und einer Methode compareTo.

```

public class Pasta {

    private String name;
    private double price;

    public Pasta(String name, double price) {
        this.name = name;
        this.price = price;
    }
}
Copy

```

```

public class Pasta {

    private String name;
    private double price;

    public Pasta(String name, double price) {
        this.name = name;
    }
}
Copy

```

```
        this.price = price;

    public boolean equals(Pasta other) {
        return (this.name.equals(other.name));
    }

    public int compareTo(Pasta other) {
        if (this.price == other.price)
            return 0;
        else if (this.price < other.price)
            return 1;
        else
            return -1;
    }
Copy
```