Java

Abstract

Julius Felchow (Mail - julius.felchow@mailbox.tu-dresden.de),
Benjamin Weller (Mail - benjamin.weller@tu-dresden.de)

9. Dezember 2019

Java-Kurs

Abstract

Abstract Class

The keyword **abstract** denotes an abstract class.

```
1    public abstract class AbstractExample {
2
3    }
4
```

- You can not create objects from an abstract class.
- Abstract classes can extend other abstract classes and can implement interfaces [1].
- Abstract classes can be extended by normal and abstract classes.

[1] Interfaces will be discussed later

Methods

An abstract class can contain concrete methods and abstract methods.

```
1    public abstract class AbstractExample {
2
3        public void printHello() {
4            System.out.println("Hello");
5        }
6
7        public abstract String getName();
8    }
9
```

An abstract method forces the class to be abstract as well.

Subclasses

The subclass has to implement abstract methods or has to be abstract as well. All concrete methods will be regular inherited.

```
1    public class Example extends AbstractExample {
2
3        @Override
4        public String getName() {
5            return "Example";
6        }
7    }
8
```

Why use abstracts?

- Use abstract classes, if it makes no sense to create an object from it.
- Abstract classes are used to minimize similar code in related classes.