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Software Engineering Design & Construction

Dr. Michael Eichberg
Fachgebiet Softwaretechnik
Technische Universität Darmstadt

Test Your Java

The goal of this lecture is to teach you fundamental software design principles that will foster your understanding of the intricacy when designing and developing software. It will help you to become a better software engineer.

Do you understand each line?

Java 7

```
public class TestYourJava {

  public static void main(String[] args) throws Exception {
    List<String> l = new ArrayList<>(5);
    System.out.println(l);

    File tempFile = File.createTempFile("Temp", "txt");
    try (FileOutputStream fout = new FileOutputStream(tempFile)) {
      fout.write(101);
    }
  }
}
```

Do you know what a “try-with-resources statement” does?

What will be the result of running the progra

Java 7

```
public class TestYourJava {

  public static void main(String[] args) {
    Object o = null;
    System.out.println(o instanceof Object);
    try {
      o = TestYourJava.<Double> cast("Alice");
    } catch (ClassCastException cce) {
      System.out.println("Bob");
    }
    System.out.println(o == null);
    System.out.println(o instanceof String);
    System.out.println(o instanceof Double);
  }

  @SuppressWarnings("unchecked")
  private static <T> T cast(Object i) {
    return (T) i;
  }
}
```

The output will be:

false
false
true
false

No exception will be raised, because the generic type information – in particular w.r.t. the type cast: “(T) i” – is erased.