

Homework Assignment 05

(Assignment submission date provided in „Ilias ... → Homework Assignments“)

Exercise#1 (Discussion)

The following loop is intended to double the *String* *s* by concatenating a copy of *s* at the end of *s* (one character at a time). For example, if *s* initially contains JAVA , then after the loop *s* should contain JAVAJAVA .

```
for (int pos=0; pos<s.length(); pos++)  
s = s + s.charAt(pos);
```

Is there a problem with the above code? What does the loop actually do? How could you fix the problem?

Exercise#2 (Coding Practice)

Write a Java program to generate a truth table. Using a command-line argument, input a positive decimal integer *n*. Generate the truth table that consists of 2^n entries and output the result on the console. Name your class <TruthTable>. **Your class should consist of at least two methods.**

- Write a tester program to check your work prompting user to enter a positive integer number and output as shown.
- Provide sufficient comments in your code and provide appropriate input to the Java documentation

You need to submit **both** your code and this PDF after adding your answer to Exercise#1.

For example:

PROMPT> java TruthTable 3

000
001
010
011
100
101
110
111