

## Programming Basics – live exercises

### Arrays

#### *Task 1: Creating and using one-dimensional arrays*

- a) Declare
- a variable in which three characters
  - a variable in which 9 integers (whole numbers)
  - a variable in which 5 double objects
- can be stored temporarily.
- b) Declare a variable `months` in which all month names can be stored. Initialise the variables with the 12 month names January, February, etc.
- c) Assign the following values to the variables declared in task (a):
- Characters a, b and c
  - Numbers 1, 2, ..., 9
  - Doubles 7.5, 8.9, 0.25, 100.3, 17.4
- d) Determine the length of the array created in task (b) and output the length to the console.
- e) Run through the three arrays from task (a) and task (c) sequentially, and output each element to the console.

#### *Task 2: Sorting method*

Declare a variable `amountOfNumbers` in which nine integers can be stored, and initialise the variable with the values 3,8,4,9,2,1,5,7,6. Then output the array elements one at a time to the console. Afterwards, sort the array (`Arrays.sort()`) and check the result by outputting it again.

#### *Task 3 – forEach loops*

Write the following `for` loop in a reduced form:

```
double[] ar = {1.2, 3.0, 0.8};
double sum = 0.0;
for (int i = 0; i < ar.length; i++) {
    sum += ar[i];
}
```