**Fundamentals of Programming**

**Lab 03**

***From this lab onward, create one single .c file and use functions for the questions (e.g. ex01, ex02, … for the function names)***

1. Input an array of n integers. Write a function to check whether the array is symmetric or not (optional: use recursive)

Example: 1 2 3 2 1 🡪 symmetric

1. Input an array of n integers. Sort the odd numbers in increasing order and even numbers in decreasing order

Example: array = **2** 5 3 **4 8 6** 7 9 **2** 🡪 result = **8** 3 5 **6 4 2** 7 9 **2**

1. Input an array of n integers. Find the largest sorted sub array (sorted array increasing/decreasing and has the largest number of elements)

Example: array = 2 5 3 4 8 9 7 6 10 🡪 result = 3 4 8 or 9 7 6

1. Write a function to check whether a given array is sorted or not. Return 1 if sorted increasing, -1: decreasing, 0: not sorted
2. Write a function to move all positive element of an array upfront

Example: **2** -3 **4** **6** -7 **9 8** -2 🡪 **2 4 6 9 8** -3 -7 -2