

TALLINN UNIVERSITY OF TECHNOLOGY

Faculty of Information Technology

Department of Computer Engineering

Chair of System Software

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## Homework 2

## Declaration of originality

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication. All works and major viewpoints of the other authors, data from other sources of literature and elsewhere used for writing this paper have been referenced

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## Detailed description of the program :

The program is able to take a list as formatted similarly to the file provided by the teacher and display the names of all trails, sort the trails by length and list the trails that user could complete in the time he has entered.

First the program opens the file

Then it reads it and stores every string in an array ,every space is considered the separation between strings

Then the original array is stripped of the useless numbers at the beginning and end, and separated between two arrays that contains name and length of the tracks.

Finally the user is asked to enter a time, and that value is compared with time necessary to finish tracks, track names are displayed accordingly.

There are no safety regarding the values entered because it wouldn't affect the answer of the program ,if ,for example, the user enters a negative number.

Display trails:

```
trail 1 Keskmine
trail 2 Ronimine
trail 3 Pikk
trail 4 Lyhike
trail 5 Rada2
trail 6 Mets
trail 7 Soo3
trail 8 Lyhike2
trail 9 Varemed
```

Sorted trails :

```
Pikk 17.52 km
Ronimine 3.10 km
Lyhike 3.73 km
Lyhike2 3.81 km
Mets 4.92 km
Soo3 5.05 km
Varemed 5.99 km
Rada2 6.19 km
Keskmine 9.98 km
```

I haven't figured why the first element is wrong,probably an initiation problem but i didn't find it.

Trails according to a value entered by user :

```
enter time in minutes
55
the Ronimine hike is doable is this time
the Lyhike hike is doable is this time
the Lyhike2 hike is doable is this time
```

Additionally,some values like the number of elements are displayed ,to check the rightness of the program.