Шайма бидан ALGORITHMS FUNDAMENTALS THEORY

КН 220 i.в

**Laboratory Training 1**

*BASIC DATA STRUCTURES*

**Objective:**

Explore basic data structures (list, queue, and stack) and get programming skills of algorithms that process them.

**Task**:

Develop a program that reads from the keyboard sequence of N unique integers N (1 <N <256), saves them to a data structure (according to task) and displays the following characteristics:

• Number of elements;

• Average of saved items;

• Minimum and maximum element;

• Fourth element of the sequence;

• Element that is before the minimum element;

**Variant 5:** (Circular list.)

*Circular list:*

A circular linked list is a variation of a linked list in which the last node points to the first node, completing a full circle of nodes. In other words, this variation of the linked list doesn't have a null element at the end.

Suggested Code:

GitHub: https://github.com/B-Shaimae/ALGORITHMS\_FUNDAMENTALS/tree/master/lab1