About the course

I decided to choose this course because in my scientific work I come across programming, and this course provides basic and basic knowledge of the data structure, which is necessary for a wide range of specialists who solve their problems by numerical methods. This course consists of 8 sections, the ninth is the conclusion, however, the main information on data structures is contained in the first five sections.

Introduction

The first section provides basic information for programming. This is the complexity of algorithms and Big-O notation, as well as the basics of the C++ language. However, I am familiar with C++ and the basics of algorithms, so this section was of little interest to me. However, I am familiar with C++ and the basics of algorithms, so this section was of little interest to me. This course provides excellent theory, including a video with an explanation by the teacher, in addition to this, there are many practical tasks, multiple choice questions, and also practical tasks where you need to write code yourself to solve certain problems.

Second module

The second section provides information about basic data structures such as arrays, singly and doubly linked lists, queues, and stacks. Although I have encountered these types of structures, in this section I learned about structures that are new to me, such as circular arrays and skip lists.

Third module

The third section is completely devoted to trees, in this section I learned a lot about binary trees and binary search trees, as well as about various algorithms for balancing and ordering such trees, in order to provide efficient search algorithms. Search algorithms are vital in applied tasks.

Fourth module

The fourth section is devoted to graphs and various algorithms for working with graphs. This section refreshed my knowledge of discrete mathematics, since in the 1st year we had discrete mathematics, where we got acquainted with graphs.

Fifth module

The fifth section is about hashing, hash tables and hash functions, before that I had only superficial knowledge about this data structure. In this course, this topic was covered much deeper.

Result and conclusion

Summing up, I can say that this course is very interesting and gives deep knowledge in data structures. It is designed for trained people who are familiar with programming at a fairly good level. I haven't studied the last sections very well, so I will definitely return to this course, but I am ready to recommend it for all people interested in programming.

And thank you for your attention