

PEN203 INTRODUCTION TO COMPUTER PROGRAMMING

Purpose of the lecture

Converting problems to algorithms, have knowledge and skills about C programming language, programming a computer with the C++ programming language.

Content of the lecture

Flow charts, algorithms, fundamental properties of C++ language, data types, variables, expressions, statements, operators, file handling, comparisons/queries, manipulation, directive commands, loops, arrays, functions and data structures.

References

Absolute C++, Walter Savitch, 6th Ed., 2016, ISBN-10: 0-13-397078-7 ISBN-13: 978-0-13-397078-4, Pearson Higher Education, Inc., Hoboken, NJ07030

An Introduction to Programming with C++, 8th Ed., Diane Zak, 2016, Cengage Learning, Library of Congress Control Number: 2015940474, ISBN: 978-1-285-86011-4.

C++ Programming: From Problem Analysis to Program Design, 6th Ed., D.S. Malik, Library of Congress Control Number:2011945466, ISBN-13 : 978-1-133-62638-1. Cengage Learning, 20 Channel Center Street, Boston, MA, USA

Lecturer Notes, Mehmet Kabak (Ankara University, Open Source Materials)Lecturer Notes, Mehmet Kabak (Ankara University, Open Source Materials)

Program = algorithm + data

Algorithm preparation: The procedure for preparing the algorithm of a problem is given below.

1. Understanding the problem,
2. Forming the mathematical model of the problem,
3. Evaluating the input information,
4. Analyzing the probabilities for the input data,
5. Testing the input data on the algorithm,
6. Testing the probabilities on the algorithm,
7. An appropriate programming language Select and write the program and run it,
8. Obtain results,
9. Compare the results with the results of similar programs,
10. Make the program available.

What is the difference between C and C++?

The C ++ language is derived from the C language. So C ++ language; We can say that the deficiencies in C have been solved and many additional features that are not in C have been introduced.

- C++ object oriented
- C procedural

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