

In21-S2-CS2023 – Data Structures and Algorithms

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Learning outcomes

After successfully studying contents covered in this lecture, students should be able to,

- explain (in detail) the major factors considered for analyzing algorithms.
- explain the use of asymptotic analysis to examine the growth of functions.
- express the time complexity of simple algorithms using asymptotic notation.

Topics Covered in Class:

- Analyzing Algorithms
- Analysis of Insertion Sort
- Analysis of Bubble Sort
- Asymptotic Notation

Reading Assignments:

- Asymptotic Notation: Section 3.1

Self-learning:

- Study the Ω , o and ω asymptotic notations.
- What are the relationships between the Θ , O , Ω , o and ω notations?
- Study the optimized Bubble sort algorithms given in the slides and analyze their time complexities.

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Previous activity

[◀ Introduction to C++](#)

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Next activity

[Lecture Slides: Complexity Analysis ▶](#)

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