

In21-S2-CS2023 – Data Structures and Algorithms

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Learning outcomes

[Learning Outcomes:](#)

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

- analyze the time complexity of merge sort
- analyze the complexity of algorithms with [recursion](#)
- use substitution method and [recursion](#)-tree method to solve recurrences
- use the master method to solve recurrences

Topics Covered in Class:

- Analyzing Merge Sort
- Solving Recurrences: Recursion-tree method
- Solving Recurrences: Master method

Reading Assignments:

- Analysis of Merge Sort: Section 2.3.2
- Solving Recurrences: Sections 4.3, 4.4
- Solving Recurrences: Section 4.5

Self Studying:

- Solve the [Recursion](#) of Merge Sort Using Different Methods
- Practice Exercises from the Book for the Two Methods of Solving Recurrences

Last modified: Monday, 20 March 2023, 9:06 AM

[Previous activity](#)[◀ In-class lab exercise](#)


Next activity

[Lecture Slides: Analyzing Recurrences ▶](#)

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 Data retention summary

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