



CosmiCode

Educating the Next Wave of Tech Pioneers.

Week 3 Tasks

- **Task 1:** Write a program to sort a list of integers using merge sort.
- **Task 2:** Create a program that reverses a list without using built-in functions and prints both the original and reversed lists.
- **Task 3:** Write a program to find the longest word in a sentence provided by the user, ignoring punctuation.
- **Task 4:** Implement a program to check if a string is a palindrome, ignoring spaces and case sensitivity.
- **Task 5:** Write a program to find the most frequent word in a text file.



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Week 3 Guide

Objective: Understand and manipulate lists and strings in Python.

- Task 1: Implement merge sort to sort a list of integers. Refer to GeeksforGeeks Merge Sort.
- Task 2: Reverse a list without built-in functions and understand list manipulation.
- Task 3: Use string manipulation techniques to find the longest word in a sentence. Refer to W3Schools Python Strings.
- Task 4: Check if a string is a palindrome, ignoring spaces and case sensitivity.
- Task 5: Learn file handling and string operations to find the most frequent word in a text file. Refer to W3Schools Python File Handling.



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