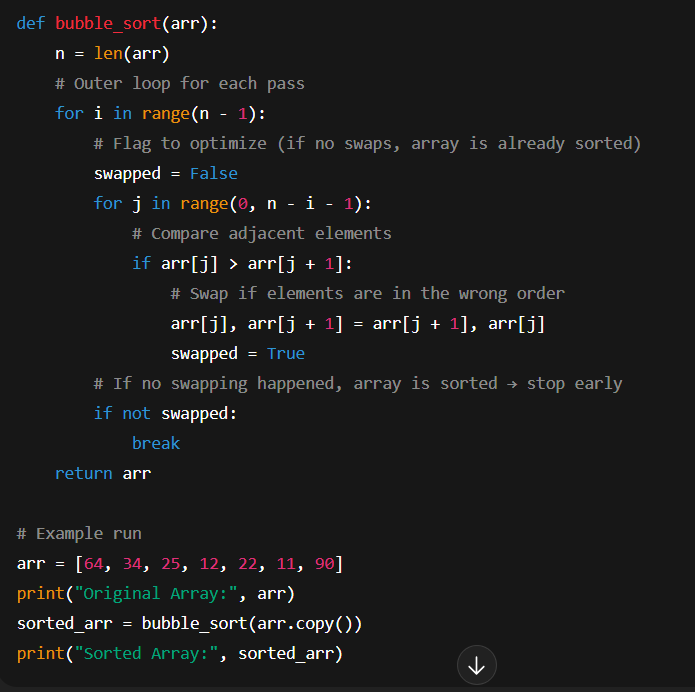
AI ASSISTED CODING 12.4

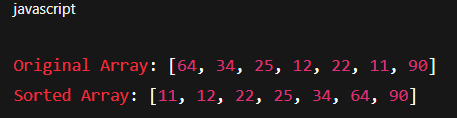
NAME:V.NITHYA

ROLLNO:2403A52346

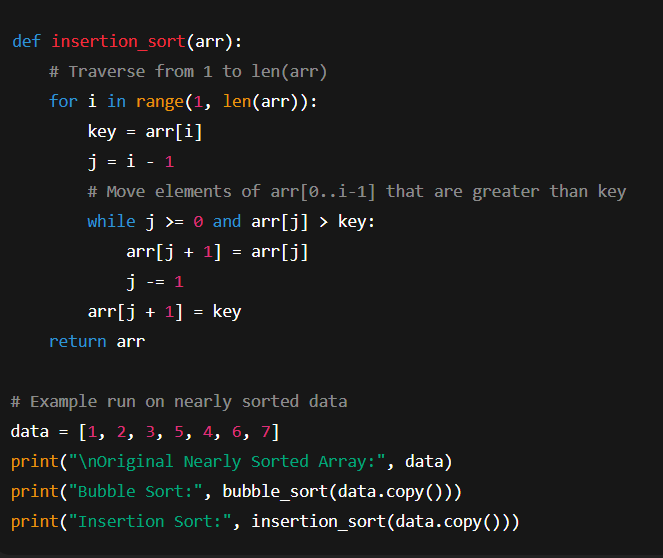
Task1: Write a Python implementation of **Bubble Sort**



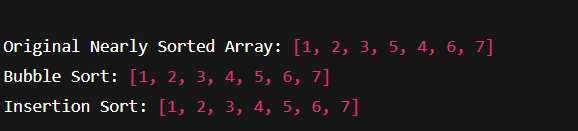
Output:



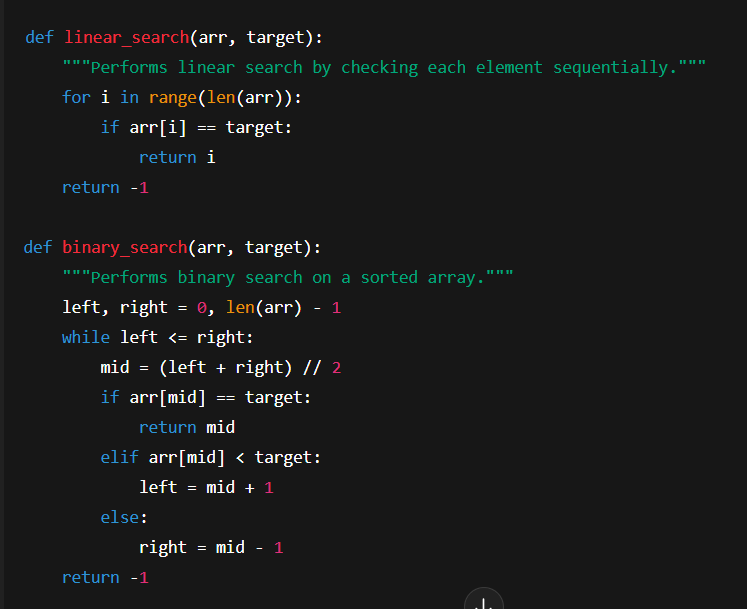
Task2: Provide Bubble Sort code to AI and ask it to suggest a **more efficient algorithm** for partially sorted arrays.

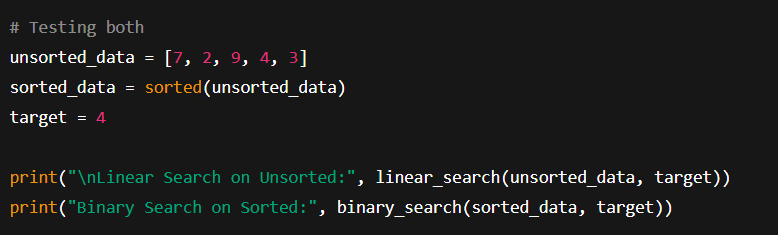


Output:



Task3: Implement both **Linear Search** and **Binary Search**

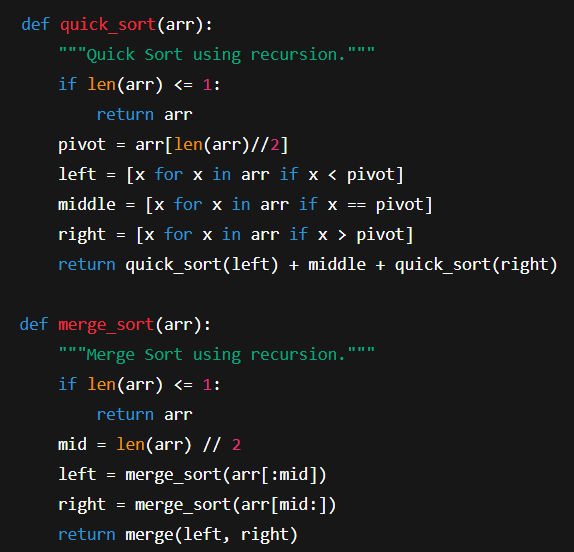


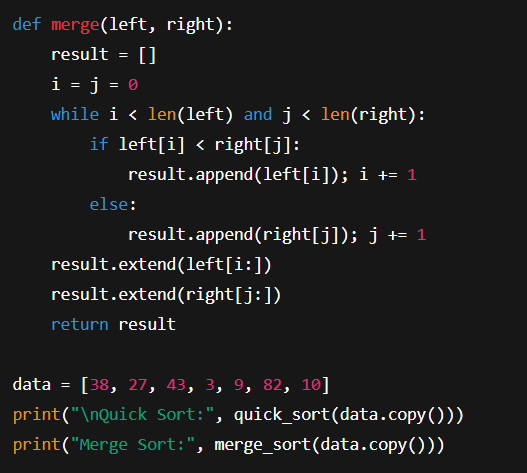


Output:

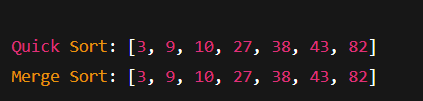


Task4:Implement Quick Sort and Merge Sort using recursion

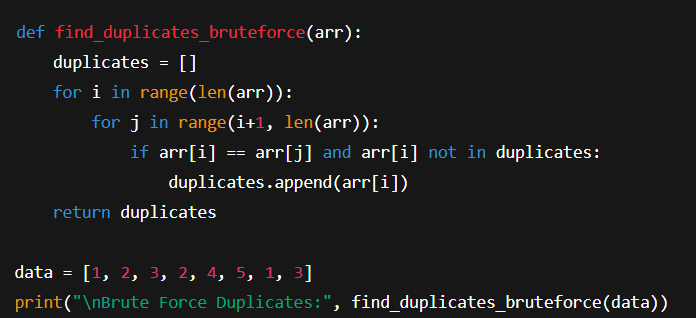


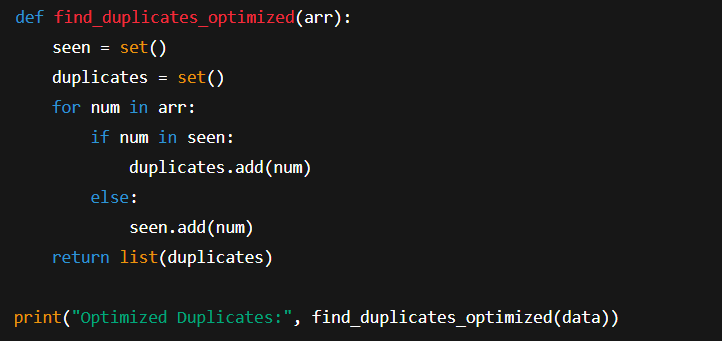


Output:



Task5: Give AI a naive algorithm (e.g., O(n²) duplicate search).





Output:

