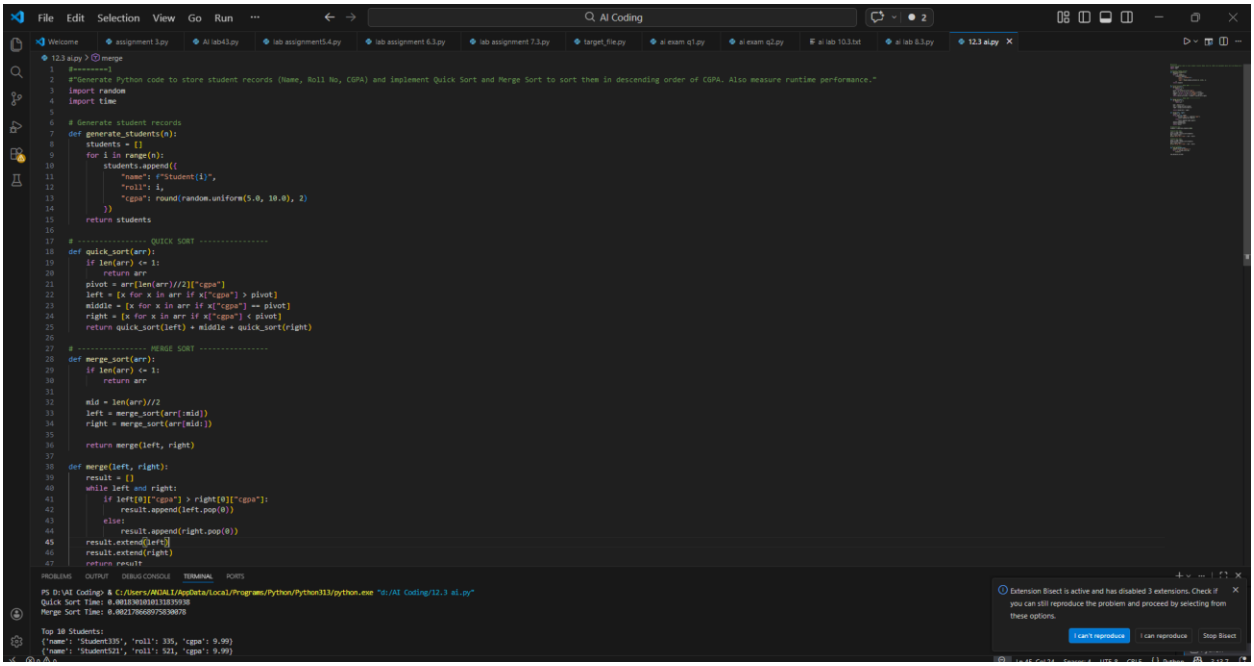
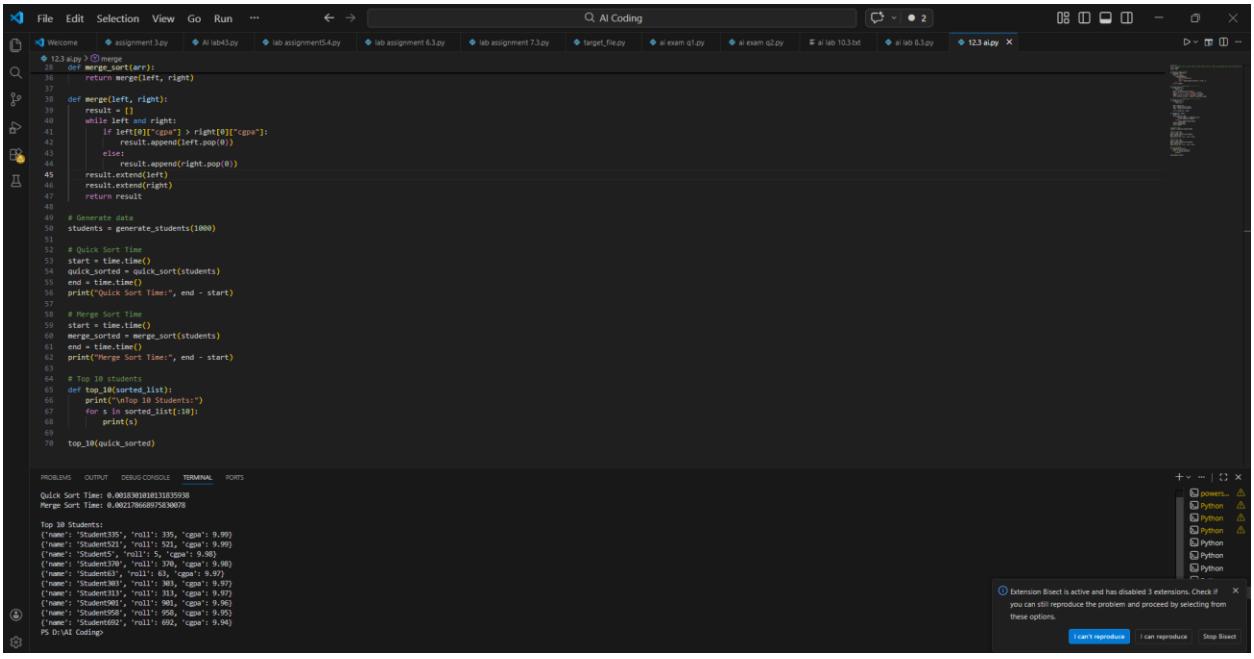
2303A51739

Lab assignment-12.3

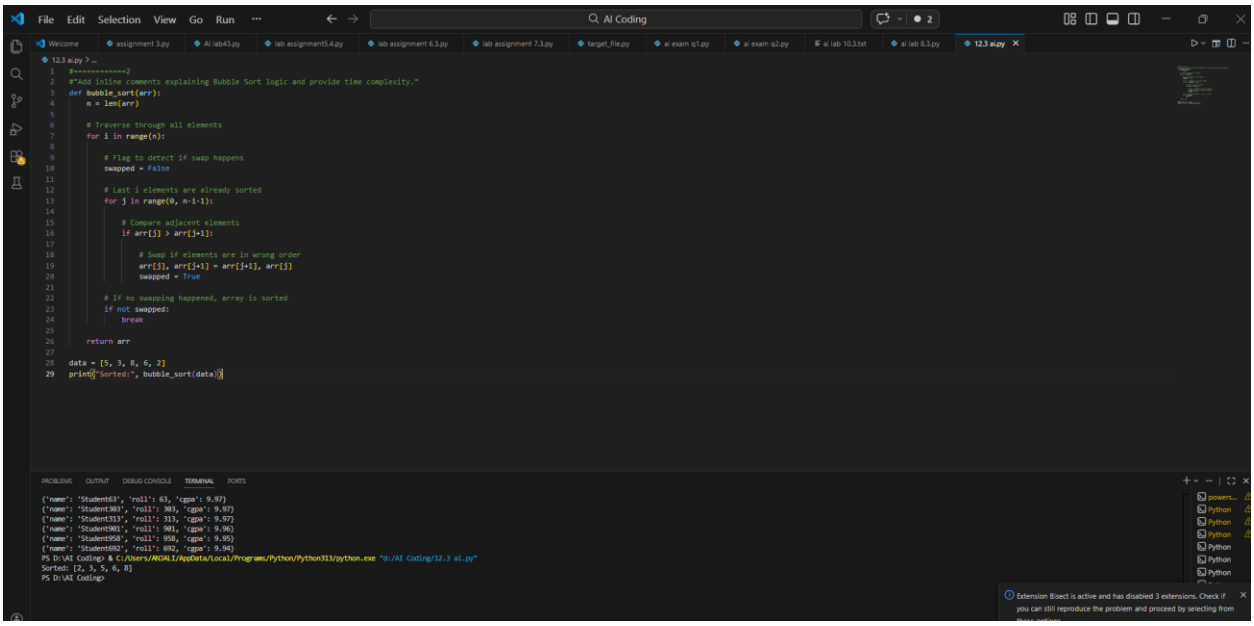
Task 1: Sorting Student Records for Placement Drive
Scenario
SR University's Training and Placement Cell needs to shortlist candidates efficiently during campus placements. Student records must be sorted by CGPA in descending order.





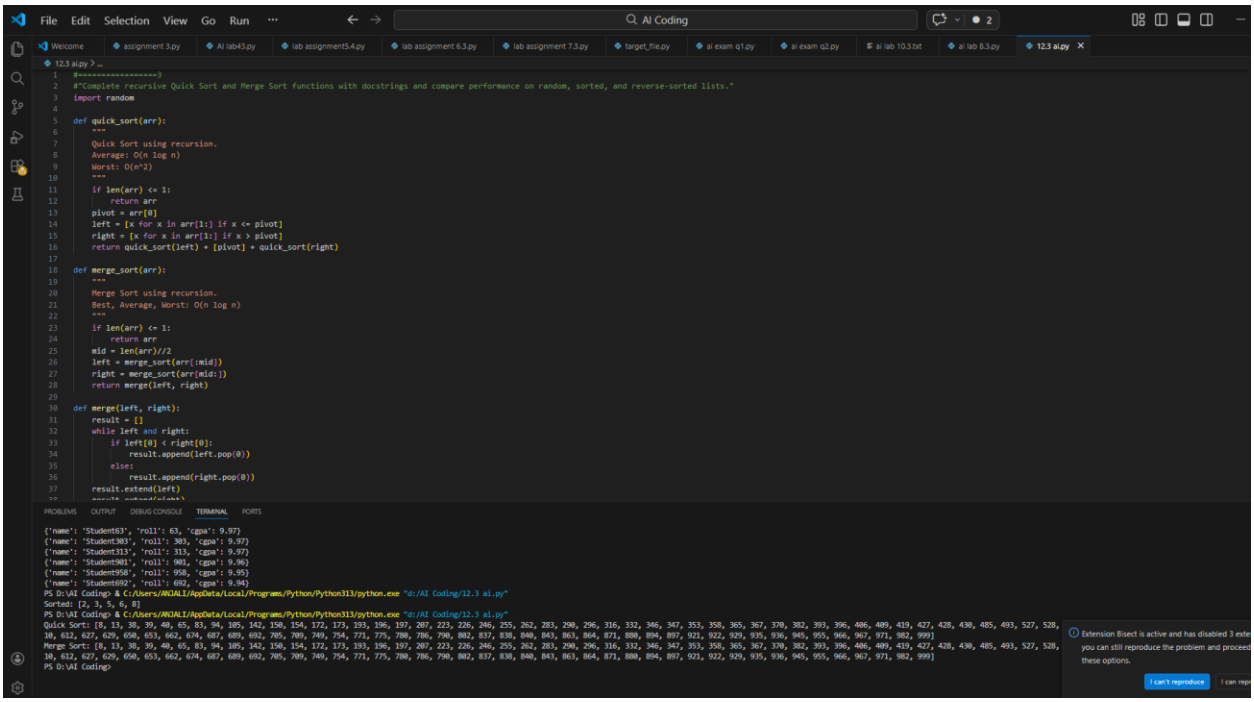
Task 2: Implementing Bubble Sort with AI Comments

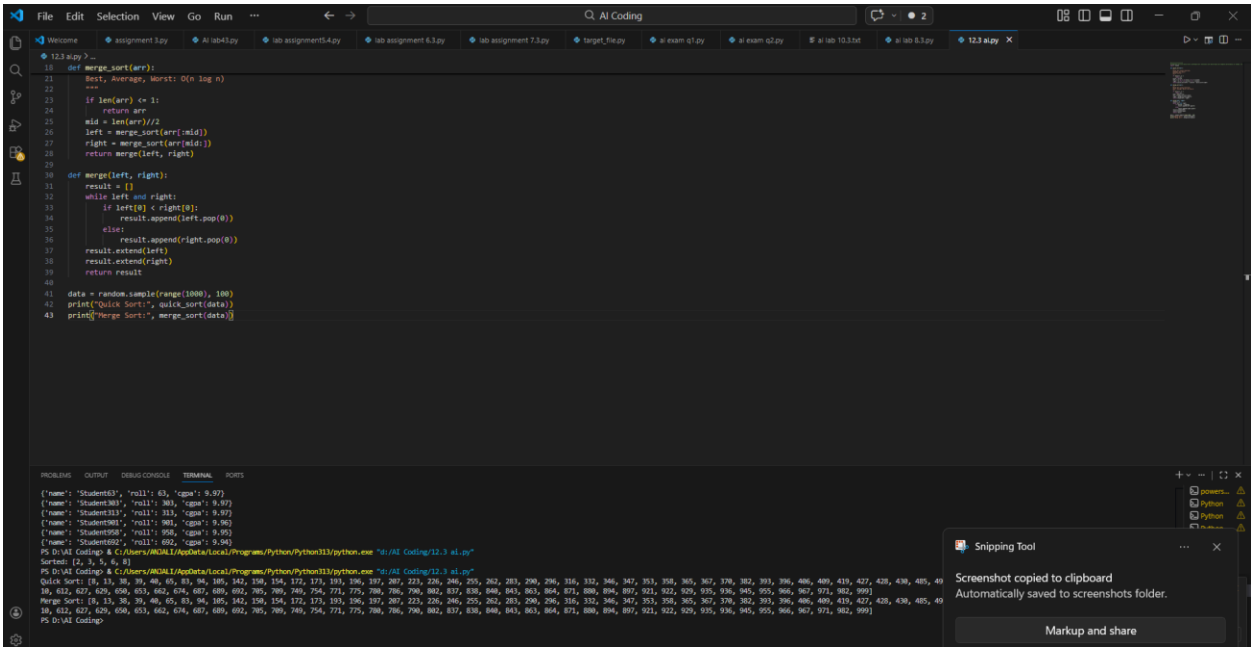
- **Task: Write a Python implementation of Bubble Sort**



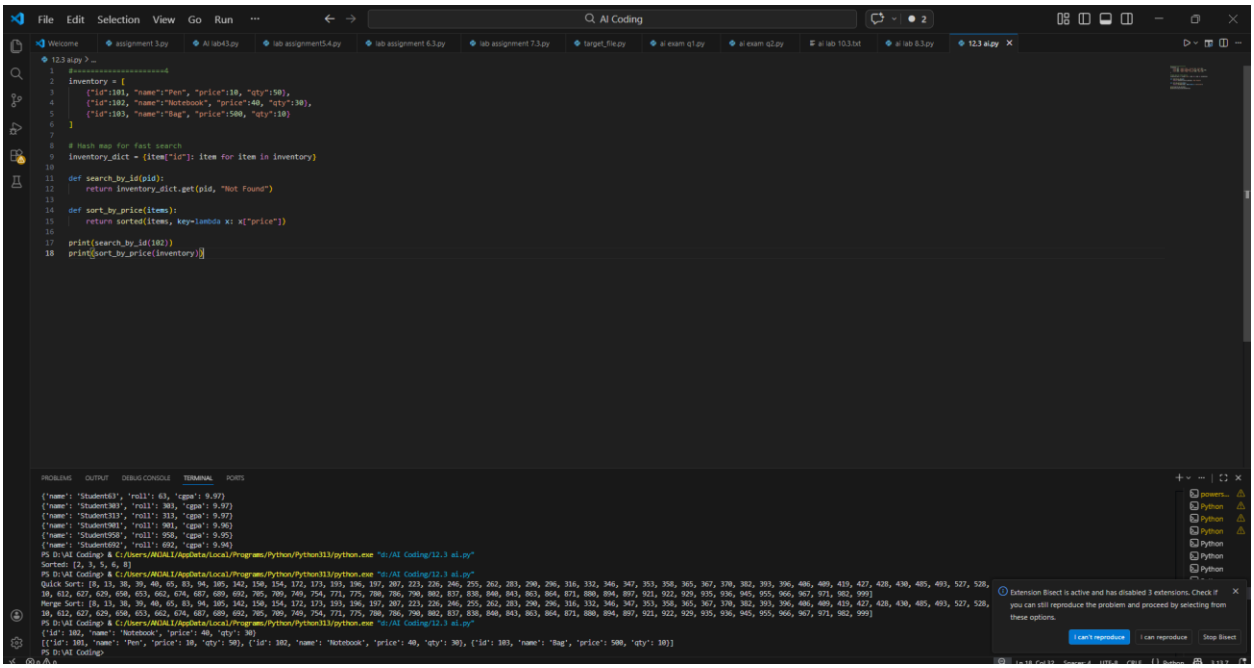
Task 3: Quick Sort and Merge Sort Comparison

- **Task: Implement Quick Sort and Merge Sort using recursion**





Task 4 (Real-Time Application – Inventory Management System)
Scenario: A retail store's inventory system contains thousands of products,
each with attributes like product ID, name, price, and stock quantity. Store staff



Task 5: Real-Time Stock Data Sorting & Searching

Scenario:

An AI-powered FinTech Lab at SR University is building a tool for analyzing stock price movements. The requirement is to quickly sort stocks by daily gain/loss and search for specific stock symbols efficiently.