## **Code Analysis: Encapsulation and Modularity**

## 1. Encapsulation

- o The use of private variables inside a class would be necessary if we had instance variables. However, since everything is contained within main(), there are no fields requiring encapsulation.
- o If we were to extend this program, it would be better to encapsulate the list within a separate class with getter/setter methods.

## 2. Modularity

- The program follows **single responsibility principle** by keeping all logic within the main() method.
- However, for better modularity, the sorting logic could be extracted into a separate method, improving code maintainability.