

Explanation

- The project explores different collection classes, which are fundamental examples of object-oriented programming principles. It demonstrates how each collection class utilizes concepts such as abstraction, encapsulation, inheritance, and polymorphism to achieve specific functionalities. For instance, arrays and linked lists showcase encapsulation by hiding their internal implementation details, while sets and dictionaries demonstrate abstraction by providing unique ways to access and manage data. Moreover, the project's discussion on the strengths and weaknesses of each collection class reflects an understanding of the underlying principles of object-oriented programming.
- In my research report, I include tables and figures (such as Table I, Table II, and Figure 1) to present the data collected during experiments, which can be considered as appropriate diagrams. Additionally, textual descriptions are provided to explain the performance characteristics and behavior of each collection class.