

General Questions:

- 1. What is the Java Collections Framework?**
 - Can you explain what it is and why it's used?
- 2. What are the main interfaces of the Java Collections Framework?**
 - Name some of the core interfaces and their purposes.
- 3. What is the difference between Collection and Collections?**
 - Explain the difference between these two terms.
- 4. What are the differences between List, Set, and Map?**
 - Provide key distinctions and use cases for each.

List Interface:

- 5. What is a List in Java and how does it differ from an array?**
 - Explain the characteristics of a List and how it compares to a standard array.
- 6. What are the different implementations of the List interface?**
 - Describe ArrayList, LinkedList, and Vector, highlighting their differences.

Set Interface:

- 7. What is a Set in Java and how is it different from a List?**
 - Explain the properties of a Set and how it compares to a List.
- 8. What are the different implementations of the Set interface?**
 - Describe HashSet, LinkedHashSet, and TreeSet, mentioning their unique features.

Map Interface:

- 9. What is a Map in Java and how does it work?**
 - Explain the concept of key-value pairs in a Map.
- 10. What are the different implementations of the Map interface?**
 - Describe HashMap, LinkedHashMap, and TreeMap, noting their differences.

Additional Concepts:

- 11. What is the difference between ArrayList and LinkedList?**
 - Discuss their internal implementations and performance differences.
- 12. How does a TreeSet maintain order?**
 - Describe the sorting mechanism of a TreeSet.
- 13. What is the difference between HashMap and Hashtable?**