Alok Sarkar

[Company name]  [Company address]

JAVA - COLLECTIONS

**Why does the Collection interface not extend the Cloneable or Serializable interfaces?**

**Answer.** The Collection interface does not extend the Cloneable or Serializable interfaces because the Collection is the root interface for all the Collection classes like ArrayList, LinkedList, HashMap, etc. If the collection interface extends Cloneable or Serializable interfaces, then it is making compulsory for all the concrete implementations of this interface to implement Cloneable and Serializable interfaces. Collection interfaces do not extend Cloneable or Serializable interfaces to give freedom to concrete implementation classes.

**What is the difference between fail-fast and fail-safe?**

**Answer.** The fail-safe property of the Iterator works with the clone of the underlying collection and therefore, it is not affected by any modification in the collection. All the collection classes in the java. the concurrent package is fail-safe, while the collection classes in java.util.util are fail-fast. Fail-safe iterators never throw such an exception while fail-fast iterators throw a ConcurrentModificationException.