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| Collection Hierarchy |  |
| What is the Collection framework | Collection Framework is a combination of classes and interface, which is used to store and manipulate the data in the form of objects. |
| main differences between array and collection | 1. Arrays are always of **fixed size,** i.e., a user can not increase or decrease the length of the array according to their requirement or at runtime, but In Collection, size can be changed dynamically as per need. 2. Arrays can only store **homogeneous** or similar type objects, but in Collection, heterogeneous objects can be stored. 3. Arrays cannot provide the ?ready-made? methods for user requirements as sorting, searching, etc. but Collection includes readymade methods to use. |
| **List interface** | 1. List interface extends the Collection interface. 2. it is an **ordered collection** of objects. 3. It contains **duplicate** elements. 4. It also allows **random** access of elements. |
| **Set interface** | 1. Set interface is a collection which **cannot** contain **duplicate elements**. |
| **Queue interface** | interface defines queue data structure, which stores the elements in the form FIFO (first in first out). |
| **Dequeue interface** | 1. it is a double-ended-queue. 2. It allows the insertion and removal of elements from both ends. 3. It implants the properties of both Stack and queue so it can perform LIFO (Last in first out) stack and FIFO (first in first out) queue, operations. |
| **Map interface** | 1. A Map (java.util.Map) represents a key, value pair storage of elements. 2. Map interface does not implement the Collection interface. 3. It can only contain a unique key but can have duplicate elements. 4. There are two interfaces which implement Map in java that are Map interface and Sorted Map. |
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