Java Collections Interview Questions

Part-1

1. What is the Collection framework in Java?

=> Collection framework is a combination of classes and interface, which is used to store and manipulate the data in the form of objects. It provides various classes such as ArrayList, Vector, Stack and Hashset, etc. and interfaces such as List, Queue, Set, etc. for this purpose.

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2. What are the main differences between array and collection? @ Codeus_notes

=> Array and Collections are somewhat similar regarding storing the references of objects and manipulating the data, but they differ in many ways.

The main differences are :-

* Arrays are always of fixed size, i.e. a user can not increase or decrease the length of array according

to their requirement or at runtime, but in Collection, size can be changed dynamically as per need.

* Arrays can only store homogeneous or similar type objects, but in Collections, heterogeneous objects can be stored.

* Arrays cannot provide the ? ready-made? methods for user requirements as sorting, searching, etc. but Collection inside / includes readymade methods to use.

3. State the differences between ArrayList and Vector?

⇒ * ArrayList is not synchronized

* Vector is synchronized.

* ArrayList is not a legacy class.

* Vector is a legacy class.

* ArrayList increases its size by 50% of the array size.

* Vector increases its size by doubling the array size.

* ArrayList is not? thread safe.

* VectorList is thread safe.

4. Differentiate between Collection and collections in the context of Java.?

⇒ Collection :- In the java.util.package, there is an interface called a Collection. It's used to represent a collection of separate objects as a single entity. It is an Interface.

Collections :- The java.util.package has a utility class called Collections. It defines various utility methods for working with collections, such as searching and sorting. All of the methods are static.

5. What is the default size of the load factor in hashing based collection?

⇒ The default load factor is 0.75. The default capacity is calculated by multiplying the initial capacity by the load factor.

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6. How can you make an ArrayList read-only in Java?

⇒ With the help of Collections.unmodifiableList() method, we can easily make an ArrayList read-only. This function takes a changeable ArrayList as an input and returns the ArrayList's read-only unmodified view.

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