**Interview Questions – Collections**

**1. What is the difference b/w list and set?**

**List can contain duplicate elements whereas set contains only unique elements.**

**List mailntains insertion order whereas set will not maintain insertion order**

**2. What is the difference between Hashset and Treeset**

**Hash set maintains no order whereas Tree set maintains ascending order**

**3.what is the difference b/w set and map?**

**Set contains values whereas map contains both key and values**

**4. what is the difference b/w Hashset and hash map?**

* **Hash set contains only values whereas hash map contains both key and value.**
* **Hash set can be iterated but hash map need to convert into set to be iterated**

**5. what is the difference b/w hash map and tree map?**

**Hash map maintains no order but tree map maintains ascending order.**

**6. what is the difference b/w collection and collections?**

* **Collection is an interface, collections is a class**
* **Collection interface provides normal functionality of data structure to list, set and queue. But collections class is specific to sort and synchronize collection elements.**

**7.what is the advantage of property file?**

* **If you change the value in properties file, you don’t need to recompile the java class.**
* **So, it makes the application easy to manage.**

**8. what does the hashCode () method?**

* **The hashCode () method return a hash code value (an integer number).**
* **The hashCode () method returns the same integer number, if two keys (by calling equals() method ) are same.**
* **But it is possible that two hash code numbers can have different or same keys.**

**9. Why we override equals () method?**

* **The equals method is used to check whether two objects are same or not.**
* **It needs to be overridden if we want to check the objects based on property. For ex: employee is a class that has 3 data members: id, name and salary. But we want to check the equality of employee object on the basis of salary. then, we need to override the equals () method.**

**10.What is the advantage of generic collection?**

* **If we use generic class, we don’t need typecasting.**
* **It is type safe and checked at compile time**

**11. what is hash-collision in hash table and how it is handled in Java?**

* **Two different keys with the same hash value is knows as hash-collision.**
* **Two different entries will be kept in a single hash bucket to avoid the collision.**

**12)diff b/w poll () and remove () method**

* **Both methods take out object from the object from the queue.**
* **But poll () Fails then it returns null but remove fails it throws an exception**

**13)the diff b/w linked hash map and priority queue in java?**

* **Priority queue guarantees that lowest or highest priority element always remain at the head of the queue,**
* **but linkedhashmap maintains the order on which elements are inserted.**
* **When you iterate over a priorityQueue, iterator doesn’t guarantee any order**
* **but iterator of LinkedHash Map does guarantee the order on which elements are inserted**

**14. what is the couple of way that you could sort a collection?**

**we can either use a sorter collection like Treeset or TreeMap or we can sort using the ordered collection like a list and Collection.sort() method.**

**15. Difference between ArrayList and LinkedList**

**ArrayList**

1. **it is the best choice if our frequent operation is retrieval**
2. **it is worst choice if our frequent operation is insertion or deletion**
3. **underlying data structure for Arraylist is resizable or growable array**
4. **arraylist implements randomaccess interface**

**LinkedList**

1. **it is best choice if our frequent operation is insertion and deletion**
2. **it is worst choice if our frequent operation is retrieval operation**
3. **Underlying data structure is double linked list**
4. **Linkedlist doesn’t implement RandomAccess Interface**