Interview Questions on Map interface

(Collection Frame work part2)

1. **What do you mean by an Entry in the Map?**

- A group of objects which are stored as a key and value pair represents the HashMap.
- Each individual key and its associated values is known as an entry in the hashmap.

2. **What do you mean by EntrySet in Map?**

- A group of key and its associated value pair present in the Map implementation class object is known as EntrySet.

3. **What is HashMap?**

- It is the child class of Map interface.
- HashMap is a group of object represented as a key and value pairs.
- HashMap does not follow the insertion order.
- Underlying data structure is hashtable.
- Here keys should be unique but value can be duplicate.
- For keys only one Null is allowed but for values multiple Null are allowed.

4. **Elaborate the Internal working of HashMap?**

5. Differentiate between Hashtable and HashMap?

Hashtable	HashMap
• Methods present inside Hashtable are synchronized. • This is thread safe means at a time only one thread can operate on its object. • Performance is low because at a time only one thread is allowed to operate on its object. • It is a legacyclass introduced in java 1.0 version. • Neither Null is allowed as a key nor as value (Null is not allowed).	• Methods present in the HashTable are not synchronized. • It is not thread safe means at a time multiple threads are allowed to operate on its object. • Performance wise faster than Hashtable because threads are not required wait to operate on HashMap object. • It is a non-legacy class because it is introduced in java 1.2 version. • Null is allowed (For key only once and for value we can use multiple time).

6. How to get Synchronized version of HashMap object?

- By using Collections.synchronizedMap() method we can get synchronized version of hashmap.

e.g: HashMap hm=new HashMap ()//will create a new hashmap object

Map m1=Collections.synchronizedMap(hm)//It will give us synchronized version of hashmap.

7. Differentiate between HashMap and LinkedHashMap?

HashMap	LinkedHashMap
• Underlying data structure is hashtable. • It is the child class of Map interface. • Insertion order is not preserved and it is based on hash code of keys. • It is introduced in 1.2 version of java.	• Underlying data structure is LinkedList and Hashtable (Hybrid Data structure). • It is the child class of HashMap class. • Insertion order is preserved. • It is introduced in 1.4 version of java.

8. Differences between HashMap and IdentityHashMap?

- In case of normal HashMap jvm will use ".equals ()" method to identify duplicate keys which is meant for content comparison.
- In case of identity hash map jvm will apply "==" operator to identify the duplicate keys which is meant for reference comparison.