1.Who is the parent of the collection?

Iterable interface is the parent of collection interface because collection interface get extends to the iterable interface.

2.Why we go for collection?

- Size of the array is dynamic in nature.
- We can store both homogenous and heterogenous elements.
- Insertion, deletion and manipulation of the data is possible.
- In-built functions are available here.

3.Tell me the difference between list and set?

List	Set
Default size is 10	Default size w.r.t set is 16
Order of insertion is maintained w.r.t it's index value.	Order of insertion is not maintained w.r.t it's index value.
List allows duplicate values.	Set does not allow duplicate values.
List allows multiple null values.	Allows only one null value in hash set.
List allows heterogenous collection/objects	But here only hash set allows heterogenous collection and tree set allows homogenous collection/object.

4.Tell me the difference between Array list and Linked list.

Array List	Linked List
Array list data structure is resizable/ dynamic in nature.	Linked list data structure is doubly linked list in nature.
When we want to store and access i.e., to search the data we go for array list.	When we want to manipulate the data, we go for linked list.
Array list includes 03 overloaded constructors.	Linked list has 2 overloaded constructors.

5.Tell me the difference between Hash Set and Tree Set.

Hash Set	Tree Set
Hash Set allows heterogenous collection/object.	Tree Set allows homogenous collection/object.
Hash Set allow null value but only one time.	Tree Set will not allow null values.
Data Structure is Hash Table	Data Structure is Balanced Tree.
The order of Iteration is random/arbitrary in nature	The Order of Iteration is sorted/Ascending Order.

6.Tell me the difference between Hash Map and Tree Map.

Hash Map	Tree Map
Hash Map allows a single null key and multiple null values.	Tree map does not allow null keys and it allows multiple null values.
Hash Map allows heterogenous elements because the order of iteration is arbitrary in nature	Tree Map allows only homogenous element as keys because of sorting.
Hash Map uses Hash table as its Data structure.	Tree Map uses Self Balancing Binary Tree as its Data Structure.
Hash Map will be used when we do not need key value pair in sorted order.	Tree Map will be used when we want key value pair in sorted order(Ascending order).

7.Tell me the difference between Hash Map and Hash Table.

Hash Map	Hash Table

Hash Map allows a single null key and multiple null values.	Hash Table doesn't allow any null or key value.
Hash Map is fast.	Hash Table is slow.
Hash Map inherits Abstract Map class.	Hash Table inherits dictionary class.

8.Tell me the difference between the Array and Array List.

Array	**Array List**
Array is having a fixed length data structure.	Array list is having a variable length data structure
We cannot change length of the array once created in java.	We can change length of array list as and when we want in java.
We can store both primitives and non-primitive/ objects in array.	We can store only primitives in Array List.

9.Tell me the difference Array List and Hash Set.

Array List	**Hash Set**
It allows duplicate values.	It doesn't allow duplicate values.
Array List is the implementation t of the list Interface.	Hash Set is the implementation of the Set interface.
Array List allows any number of null values.	Hash Set allows only one null value.
Array List maintains the order of insertion.	Hash Set will not maintain order of Insertion.

10.Tell me the difference between Array list and Tree Set.

Array List	**Tree Set**
Array List allows any number of null values.	Tree Set will not allow null values.
Array List allow duplicate values.	Tree Set will not allow duplicate values.
Array List maintains order of insertion.	Tree Set will not maintain order of insertion.

11.Tell me the difference between Hash Set and Hash Map.

Hash Set	**Hash Map**
Hash set uses add () method to add elements.	Hash Map uses put () method to add elements.
Hash Set can contain only single null value.	Hash Map can contain single null key and Multiple null values.
Hash Set stores the object.	Hash Map stores the Key value pair.
Hash Set is used when we need to maintain the uniqueness of the data.	Hash Map is used when we need not to maintain the uniqueness of the data.