1. What are collections in java?

Ans. Collections – Collections in java is a framework that provides architecture to store and manipulate the group of objects.

1. What is collection?

Ans. Collection – Java collection simply means a single unit of objects i.e. a group.

hierarchy of collection framework

1. What is the difference between list, set and map?

Ans.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **List** | **Set** | **Map** |
| Duplicity | List allows duplicate elements. | set does't allow duplicate elements. | Map stored the elements as key & value pair. Map doesn’t allow duplicate keys while it allows duplicate values. |
| Null | List allows any number of null values. | set allows single null value at most. | Map can have single null key at most and any number of null values. |
| Order | Maintains Insertion order. | set doesn't maintain any order. | map doesn't maintain any order. |

1. Difference between ArrayList and LinkedList?

Ans.

|  |  |
| --- | --- |
| **ArrayList** | **LinkedList** |
| ArrayList internally uses dynamic array to store the elements. | LinkedList internally uses doubly linked list to store the elements. |
| Manipulation with ArrayList is **slow** because it internally uses array. | Manipulation with LinkedList is **faster** than ArrayList because it uses doubly linked list so no bit shifting is required in memory. |
| ArrayList is **better for storing and accessing** data. | LinkedList is better for manipulating data. |

1. Difference between HashSet and LinkedHashSet and TreeSet?

Ans.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **HashSet** | **LinkedHashSet** | **TreeSet** |
| Duplicate | Not Allowed | Not Allowed | Not Allowed |
| Order | No Order | Insertion Order | Sorting Order |
| Null | Allow Null | Allow Null | Not Allowed |
| Performance | High in all | slow than HashSet | Slow Than LinkedHashSet |

1. Difference between HashMap and HashTable.

Ans.

|  |  |
| --- | --- |
| **HashMap** | **HashTable** |
| HashMap inherits HashMap Class. | HashTable inherits Dictionary class. |
| HashMap allows one null key and multiple null values. | HashTable doesn't allow any null key or value. |
| HashMap is non-synchronized. | HashTable is synchronized. |
| HashMap is fast. | HashTable is slow. |
| HashMap is traversed by iterator. | HashTable is traversed by Enumerator and iterator. |

1. Base class of all classes in java?

Ans. Object class is base class of all classes in java.

1. Benefits of properties class and how to read?

Ans. No need to compile property class.

1. FileReader reader=**new** FileReader("db.properties");
2. Properties p=**new** Properties();
3. p.load(reader);
4. System.out.println(p.getProperty("user"));

1. How to format date?

Ans.

Date date=**new** Date();

System.***out***.println(date);

SimpleDateFormat sm=**new** SimpleDateFormat("dd/MM/YYYY mm:hh:ss");

System.***out***.println(sm.format(date));