Asignment -10

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Difference between ArrayList and LinkedList?

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| BASIS FOR COMPARISON | ARRAYLIST | LINKEDLIST |
| Basic | ArrayList allows random access to the elements in the list. | LinkedList does not allow random access to the elements in the list. |
| Data structure | The internal structure used for storing elements is the dynamic array. | The internal structure used to store elements is doubly link list. |
| Extends | ArrayList extends AbstarctList class | LinkedList extends AbstractSequentialList. |
| Implements | AbstractList implements List interface. | LinkedList implements List, Deque, Queue |
| Access | Access to elements in the list is faster in ArrayList. | Access to elements in the list is slower in LinkedList. |
| Manipulation | Manipulation to elements in the list is slower in ArrayList. | Manipulation to elements in the list is faster in LinkedList. |
| Behaviour | ArraylList behaves as List as it implements list. | LinkedList behaves as List a well as the Queue as it implements List and Queue both. |

What are the types of constructors in Arraylist and Linkedlist?

**Constructors of Java ArrayList**

ArrayList() It is used to build an empty array list.

ArrayList(Collection c) It is used to build an array list that is initialized with the elements of the collection c.

ArrayList(int capacity) It is used to build an array list that has the specified initial capacity.

**Constructors of Java LinkedList**

LinkedList() It is used to construct an empty list.

LinkedList(Collection c) It is used to construct a list containing the elements of the specified collection, in the order they are returned by the collection's iterator.