ECAP615

Programming in Java

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Learning Outcomes

After this lecture, you will be able to

- learn the basic concept of linkedlist class.
- understand the different constructors of linkedlist class.
- analyze the basic methods of linkedlist class.

LinkedList class

- Java LinkedList class uses a doubly linked list to store the elements.
- It provides a linked-list data structure.
- It inherits the AbstractList class and implements List and Deque interfaces.

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Points to Remember

- Java LinkedList class can contain duplicate elements.
- Java LinkedList class maintains insertion order.
- Java LinkedList class is non synchronized.
- In Java LinkedList class, manipulation is fast because no shifting needs to occur.
- Java LinkedList class can be used as a list, stack or queue.

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LinkedList Class Declaration

Syntax:

```
public class LinkedList<E> extends AbstractSequentialList<E> implements List<E>, Deque<E>, Cloneable, Serializable.
```

Constructors of LinkedList

Constructor	Description
LinkedList()	It is used to construct an empty list.
LinkedList(Collection<? extends E> 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.

LinkedList Methods

Method	Description
addFirst()	Adds an item to the beginning of the list.
addLast()	Add an item to the end of the list.
removeFirst()	Remove an item from the beginning of the list.
removeLast()	Remove an item from the end of the list.
getFirst()	Get the item at the beginning of the list.
getLast()	Get the item at the end of the list.


That’s all for now…