

IDMLI02

– In a Singly Linked List implementation, what do we do when assigning head to null?

Select one:

- ☐ Avoid traversing the list.
- ☐ Delete all nodes from the list.
- ☒ Remove the last node from the list.
- ☐ Remove the first node from the list.

IDMLI03

– In an Array-based list, what does this code do to the list?

```
for (int i=pos-1;i<length;i++)
    items[i]=items[i+1];
length--;
```

Select one:

- ☐ Remove all item from the list except one.
- ☐ Traversing the list.
- ☒ Remove an item from the list.
- ☐ Duplicate items in the list.

IDMLI04

– In a Singly Linked List implementation, what does this code do to the list?

```
if (!isEmpty())
{
    if (pos == 1)
        head=head.getNext();
    else
    {
        SLNode prevNode=traversing(pos-1);
        SLNode posNode=prevNode.getNext();
        prevNode.setNext(posNode.getNext());
    }
}
```

Select one:

- ☐ Search for a node in the list
- ☐ Remove the tail node
- ☒ Remove the node at the pos position from the list
- ☐ Remove the head node

IDMLI05

– In an Array-based list, what does this code do to the list?

```
if (length < maxSize)
{
    length++;
    for (int i=length-1; i>pos-1; i--)
        items[i]=items[i-1];
    items[pos-1]=newItem;
}
```

Select one:

- ☒ Insert an item to the list
- ☐ Search for an item in the list
- ☐ Traversing the list
- ☐ Remove an item from the list

IDMLI06

– Consider method F in Java and a singly linked list L below. Suppose that H is the head node of the list

L. What is the result if we call F(H)?

Select one:

- ☐ 'B'-->'D'-->'F'
- ☒ 'A'-->'B'-->'C'-->'D'-->'E'-->'F'
- ☐ 'A'-->'C'-->'E'
- ☐ 'F'-->'E'-->'D'-->'C'-->'B'-->'A'

IDMLI07

– Consider method F in Java and a singly linked list L below. Suppose that H is the head node of the list L. What is the result if we call F(H)?

Select one:

- ☒ 'A'-->'B'-->'C'-->'D'-->'E'-->'F'
- ☐ 'A'-->'C'-->'E'
- ☐ 'B'-->'D'-->'F'
- ☐ 'F'-->'E'-->'D'-->'C'-->'B'-->'A'

IDMLI08

- Consider method F in Java and a singly linked list L below. Suppose that H is the head node of the list L. What is the result if we call F(H)?

Select one:

- ☒ 'E'-->'C'-->'A'
- ☐ 'F'-->'D'-->'B'
- ☐ 'A'-->'C'-->'E'
- ☐ 'B'-->'D'-->'F'

IDMLI09

- Consider method F in Java and a singly linked list L below. Suppose that H is the head node of the list L. What is the result if we call F(H)?

Select one:

- ☐ 'B'-->'D'-->'F'
- ☐ 'E'-->'C'-->'A'
- ☒ 'A'-->'C'-->'E'
- ☐ 'F'-->'D'-->'B'

IDMLI10

- Consider method F in Java and a singly linked list L below. Suppose that H is the head node of the list L. What is the result if we call F(H.getNext())?

```
public static void F(SLNode node)
{
    if (node!=null)
    {
        System.out.println(node.getData());
        if (node.getNext() !=null)
            F(node.getNext().getNext());
    }
}

L={ 'A' --> 'B' --> 'C' --> 'D' --> 'E' --> 'F' }
H is the head node of L, H= 'A'
```

Select one:

- ☐ 'F'-->'D'-->'B'
- ☐ 'E'-->'C'-->'A'
- ☒ 'B'-->'D'-->'F'
- ☐ 'A'-->'C'-->'E'

IDMLI11

- Consider method F in Java and a singly linked list L below. Suppose that H is the head node of the list L. What is the result if we call F(H.getNext())?

Select one:

- ☐ 'B'-->'D'-->'F'
- ☐ 'E'-->'C'-->'A'
- ☐ 'A'-->'C'-->'E'
- ☒ 'F'-->'D'-->'B'

IDMLI12

- What is the number of comparisons needed in the worst case to search for a given node in a Singly Linked List of the length N nodes?

Select one:

- ☐ N/2



$\log(N)$



N



$N\log(N)$