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REGISTRATION NUMBER –20BCE7315

QUESTION-

Write a Program to create a Singly Linked List with n nodes and then perform following operations.

a) Display the list

b) Find Maximum element from SLL

c) Find sum elements in SLL

CODE-

```
public class SLL{
static class Node{
int data;
Node next;
}
static Node head=null;
static Node last=null;
static int sum=0;

static int max(Node head){
```

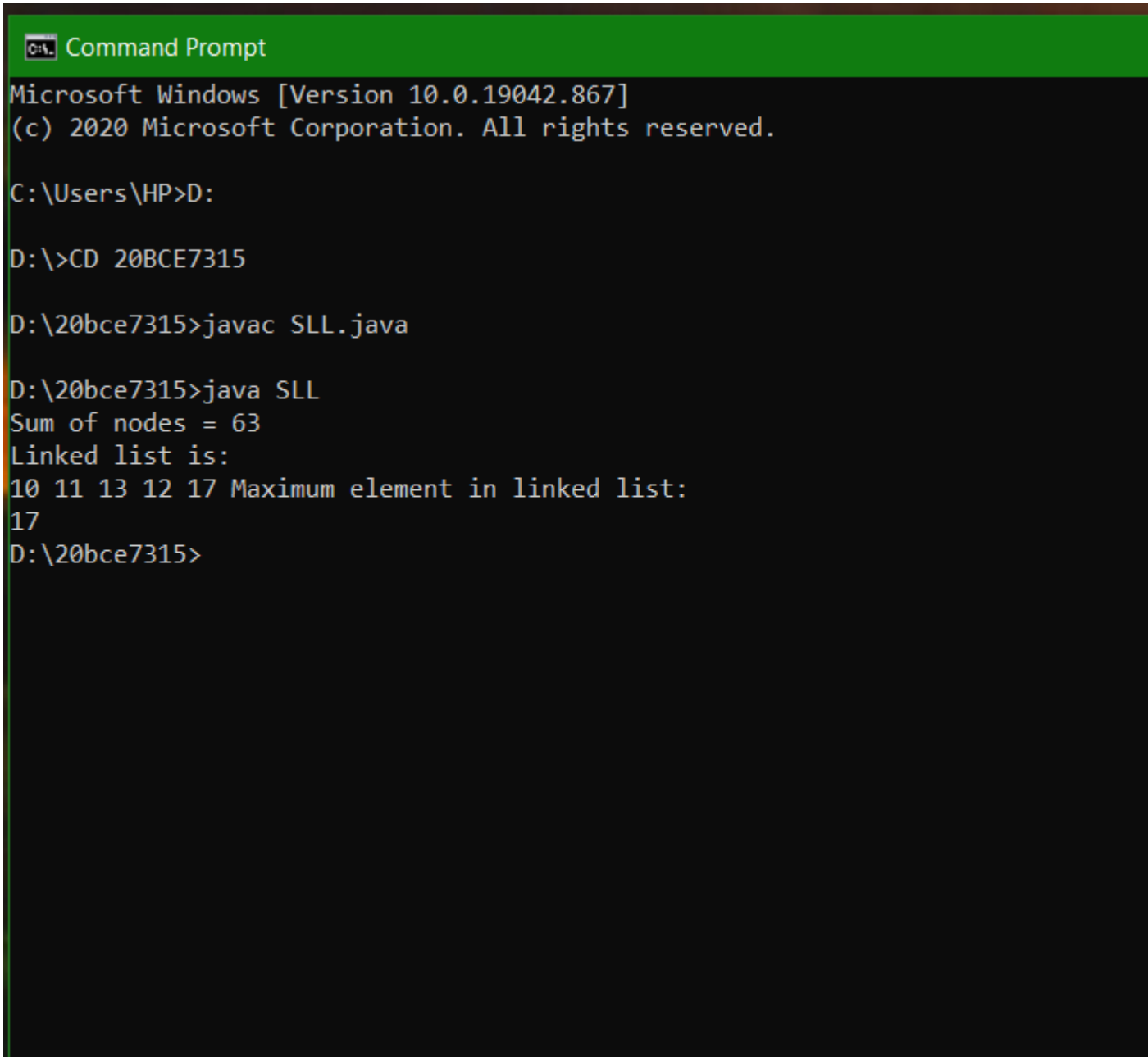
```
Node curr=head;
int max=curr.data;

while (curr!=null){
if(max<curr.data)
  max=curr.data;
  curr=curr.next;
}
return max;
}
static void insert(int data){
if (head==null){
        Node newNode=new Node();
        newNode.data=data;
        head =newNode;
        last =head;
}
else{
        Node newNode=new Node();
        newNode.data=data;
        last.next=newNode;
        last=last.next;
```

```
}
}
static void printlist(Node head){
Node curr=head;
while (curr!=null){
System.out.print(curr.data+" ");
curr=curr.next;
}
}
static Node push( Node head_ref, int new_data)
{
    Node new_node = new Node();

    new_node.data = new_data;
    new_node.next = (head_ref);

    (head_ref) = new_node;
    return head_ref;
}
static void sumOfNodes( Node head)
{
    if (head == null)
```

```
        return;
    sumOfNodes(head.next);

    sum = sum + head.data;
}

static int sumOfNodesUtil( Node head)
{

    sum = 0;
    sumOfNodes(head);

    return sum;
}
public static void main(String[] args){
insert(10);
insert(11);
insert(13);
insert(12);
insert(17);
 System.out.println( "Sum of nodes = " +
sumOfNodesUtil(head));
```

```
System.out.println("Linked list is:");
printlist(head);
System.out.println("Maximum element in linked list:");
System.out.print(max(head));
}
}
```

OUTPUT-


Command Prompt
Microsoft Windows [Version 10.0.19042.867]
(c) 2020 Microsoft Corporation. All rights reserved.
C:\Users\HP>D:
D:\>CD 20BCE7315
D:\20bce7315>javac SLL.java
D:\20bce7315>java SLL
Sum of nodes = 63
Linked list is:
10 11 13 12 17 Maximum element in linked list:
17
D:\20bce7315>