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REGISTRATION NUMBER –20BCE7315

QUESTION-

Write a program to create a single linked list with 'n' nodes and perform following.
i) Find max element from list
ii) Find min element from list
iii) display list of items in list

CODE-

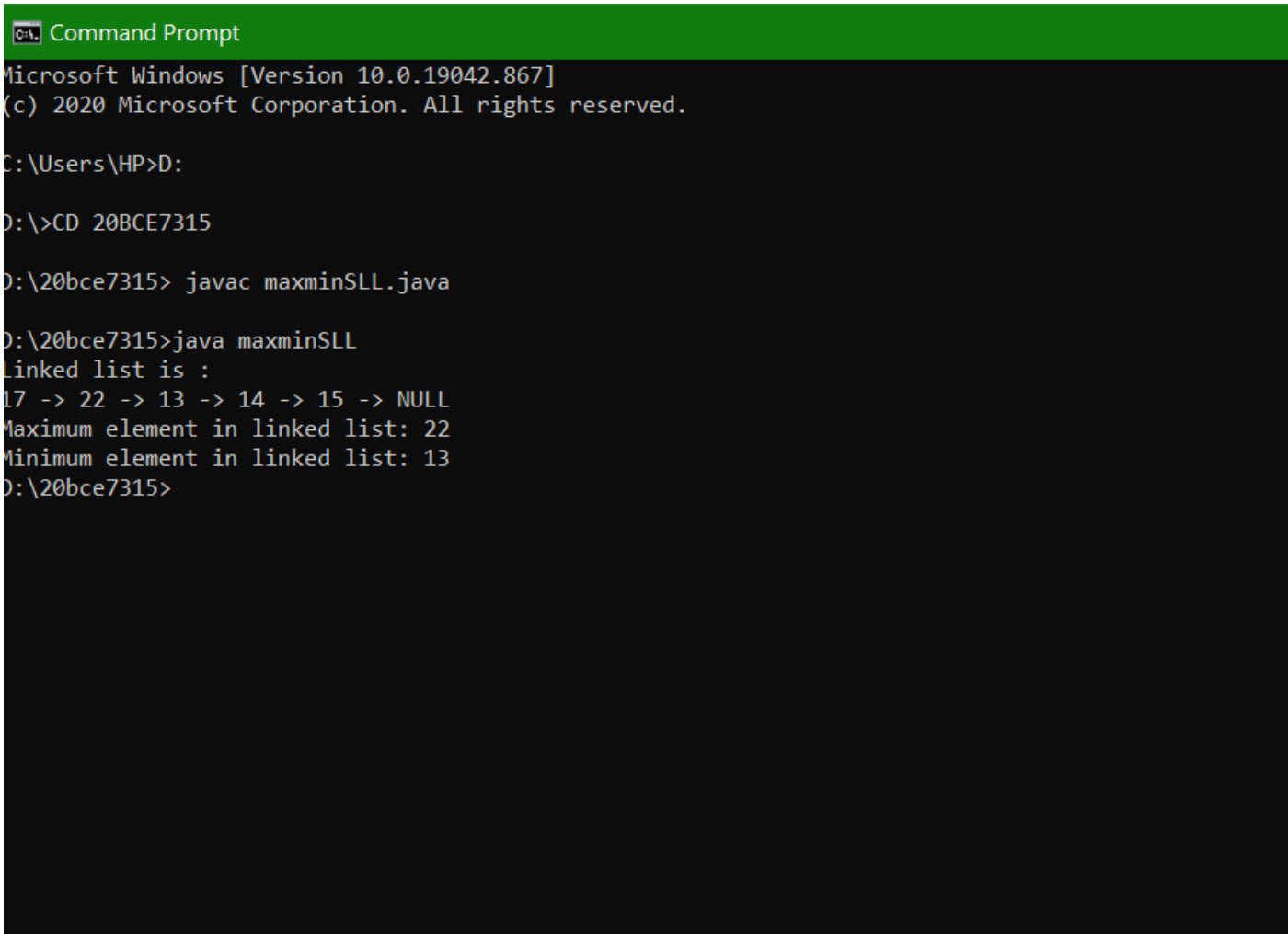
```
public class maxminSLL
{
static class Node
{
   int data;
   Node next;
}
static Node head = null;
static int largestElement(Node head)
{
```

```
    int max = Integer.MIN_VALUE;
    while (head != null)
    {
        if (max < head.data)
            max = head.data;
        head = head.next;
    }
    return max;
}

static int smallestElement(Node head)
{

    int min = Integer.MAX_VALUE;

    while (head != null)
    {
        if (min > head.data)
            min = head.data;

        head = head.next;
```

```
    }
    return min;
}

static void push(int data)
{
    Node newNode = new Node();
    newNode.data = data;
    newNode.next = (head);

    (head) = newNode;
}

static void printList(Node head)
{
    while (head != null) {
        System.out.print(head.data + " -> ");
        head = head.next;
    }
    System.out.println("NULL");
}
```

```
public static void main(String[] args)
{
   push( 15);
   push( 14);
   push( 13);
   push( 22);
   push( 17);
   System.out.println("Linked list is : ") ;
   printList(head);
   System.out.print("Maximum element in linked list: ");
   System.out.println(largestElement(head));
   System.out.print("Minimum element in linked list: ");
   System.out.print(smallestElement(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 maxminSLL.java
D:\20bce7315>java maxminSLL
Linked list is :
17 -> 22 -> 13 -> 14 -> 15 -> NULL
Maximum element in linked list: 22
Minimum element in linked list: 13
D:\20bce7315>