Course Title: Data Structure Lab

Course Code: CSE 1302

Submitted to:

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```c
 //Tazminur Rahman Tanim
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#include<stdio.h>
#define max 10
int top=-1;
int stack[max];
void push(int element)
{
if(top==max-1)
{
printf("Overflow\n");
}
else
{
top++;
stack[top]=element; 17
printf("%d pushed \n",stack[top]);
}
}
void pop()
{
if(top==-1)
{
printf("Empty");
}
else
{
printf("%d popped\n",stack[top]);
top--;
}
}
void display()
{
if(top==-1)
{
printf("Stack is empty \n");
return;
}
printf("Elements in stack:");
for(int i=top; i>=0; i--)
{
printf("%d ",stack[i]);
}
printf("\n");
}
int main()
{
push(11);
push(12);
push(13);
push(14);
push(15);
push(16);
push(17);
push(18);
push(19);
push(20);
display();
pop(11);
pop(12);
pop(13);
pop(14);
```
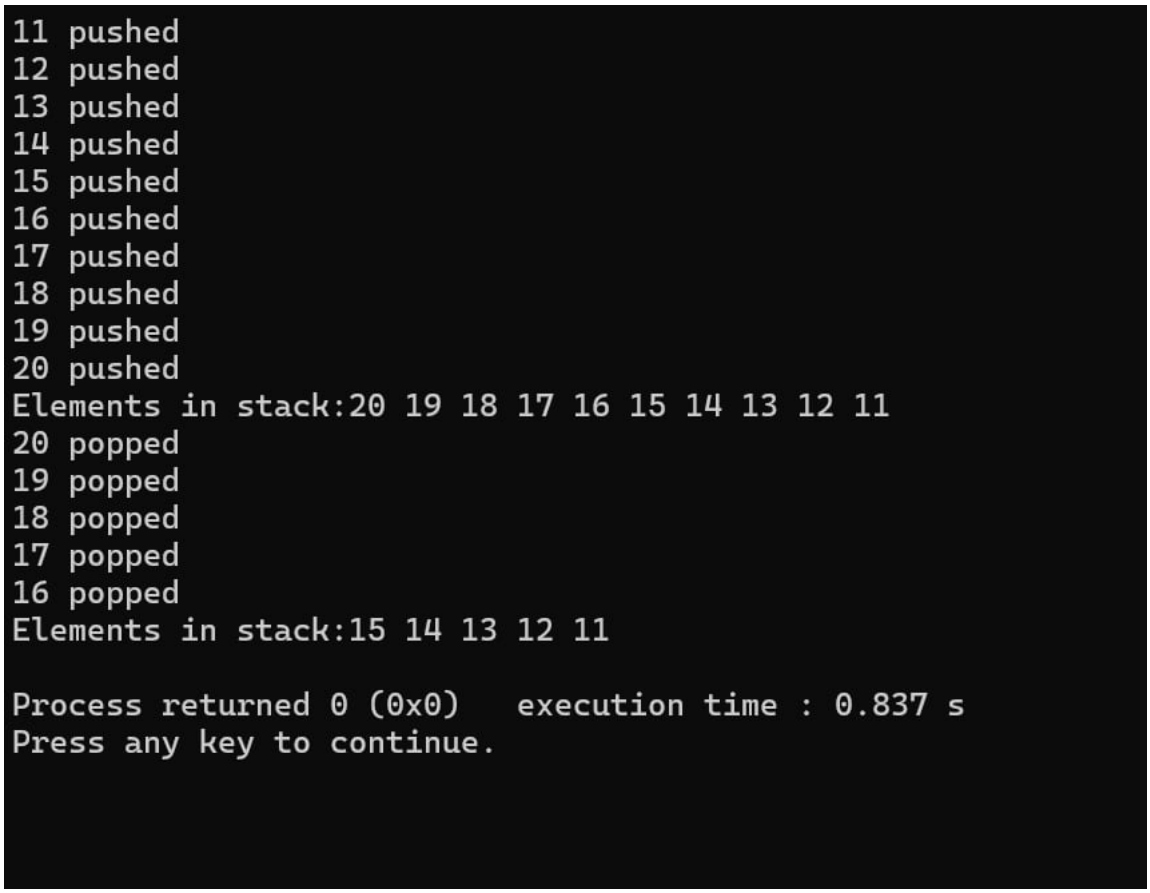

```
        pop(15);
        display();
        }
```

Output result :



```c
//Tazminur Rahman Tanim
//ID:242014124
#include<stdio.h>
#include<stdlib.h>
struct node
{
int data;
struct node *next;
 };
 struct node *head=NULL;
 void push(int value){
 struct node *newnode= malloc(sizeof(struct node));
     newnode->data=value;
     newnode->next=head;
     head=newnode;
     }
     void pop()
     {
     struct node *temp;
     if(head==NULL)
  {
  printf("Stack is empty");
     }
     else{
     printf("Popped element %d \n",head->data);
         temp=head;
         head=head->next;
         free(temp);
         }
         }
         void display()
         {
        printf("Stack: ");
         struct node *temp=head;
         while(temp!=NULL)
         {
         printf("%d ",temp->data);
         temp=temp->next;
         }
         printf("\n");
         }
         int main()
         {
         push(5);
         push(15);
         push(25);
         push(35);
         push(45);
         display();
         pop(5);
         pop(15);
         pop(25);
         display();
         }
```

Output Result :