

01/10/24

LAB - 2

Q. Write the code for implementation of stack

```
#include <stdio.h>
#define height 5
void push(int s[], int top, int el)
{
    if (top == (height - 1))
    {
        printf("Stack overflow error");
    }
    else
    {
        top++;
        s[top] = el;
    }
}

int pop(int s[], int top)
{
    if (top == -1)
    {
        printf("Stack underflow error");
        return 0;
    }
    top--;
    return s[top+1];
}

void display(int s[], int top)
{
    for (int i = top; i >= 0; i--)
        printf("%d ", s[i]);
}
```



```
if (top == -1)
{
    printf("Stack is empty");
    return;
}
for (int i = top; i >= 0; i--)
    printf("%d", s[i]);
}
```

Output

1. Insert into stack
2. Delete from stack
3. Display stack.

Press any other button to exit
Enter option

1

Enter Element to insert: 10

Enter option: 1

Enter Element to insert: 20

3

~~Enter Element to insert~~

Enter option: 1

Enter Element to insert: 30

Enter Element to insert: 40

Stack overflow error

Enter option: 3

30

20

10

Enter option: 2

Element popped: 30

Enter option: 2

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Enter

Element popped: 20

Enter option: 2

Element popped: 10

Enter option: 2

Stack underflow error.

Enter option: 3

Stack is empty.

Enter option: 4