

6) Stack Operation

```
#include <iostream>
using namespace std;
class stack
{
public:
    int top, s[50], n;
    void init()
    {
        top = 0;
        cout << "\nInit STACK OPERATIONS";
        cout << "\nEnter the size of the stack:";
        cin >> n;
    }
    void push()
    {
        if (top == n)
        {
            cout << "\nStack is overflow";
        }
        else
        {
            top = top + 1;
            cout << "\nEnter the element:";
            cin >> s[top];
        }
    }
    void pop()
    {
        if (top == 0)
            cout << "\nThe stack is overflow";
        else
        {
            cout << "\nThe deleted element is: " << s[top];
            top = top - 1;
        }
    }
    void display()
    {
        for (int i = 1; i <= top; i++)
        {
            cout << "\nItem " << i << ": " << s[i];
        }
    }
};
```

```

int main()
{
    stack s;
    int ch;
    char ans = 'y';
    s.init();
    while (ans == 'y')
    {
        cout << "\n1 push";
        cout << "\n2 pop";
        cout << "\n3 Display";
        cout << "\nEnter your choice:";
        cin >> ch;
        switch (ch)
        {
            case 1:
            {
                s.push();
                break;
            }
            case 2:
            {
                s.pop();
                break;
            }
            case 3:
            {
                s.display();
                break;
            }
            default:
            {
                cout << "Enter the valid choice";
            }
        } // end of switch

        cout << "\nDo you want to continue (y/n)";
        cin >> ans;
    }
}

```