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1)implementation of program based on
stack menu driven

```
#include <iostream>
using namespace std;
int stack[100], n=100, top=-1;
void push(int val) {
    if(top>=n-1)
        cout<<"Stack Overflow"<<endl;
    else {
        top++;
        stack[top]=val;
    }
}
```

```
void pop() {
    if(top<=-1)
        cout<<"Stack Underflow"<<endl;
    else {
        cout<<"The popped element is "<< stack[top] <<endl;
        top--;
    }
}

void display() {
    if(top>=0) {
        cout<<"Stack elements are:";
        for(int i=top; i>=0; i--)
            cout<<stack[i]<<" ";
        cout<<endl;
    } else
        cout<<"Stack is empty";
}

int main() {
    int ch, val;
```

```
cout<<"1) Push in stack"<<endl;
cout<<"2) Pop from stack"<<endl;
cout<<"3) Display stack"<<endl;
cout<<"4) Exit"<<endl;
do {
    cout<<"Enter choice: "<<endl;
    cin>>ch;
    switch(ch) {
        case 1: {
            cout<<"Enter value to be pushed:"<<endl;
            cin>>val;
            push(val);
            break;
        }
        case 2: {
            pop();
            break;
        }
        case 3: {
```

```
        display();
        break;
    }
    case 4: {
        cout<<"Exit"<<endl;
        break;
    }
    default: {
        cout<<"Invalid Choice"<<endl;
    }
}
}while(ch!=4);
return 0;
}
```