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**Question #1:**

```
#include<iostream>
using namespace std;
```

```
class Stack {

    private:

        int top;
        int stackArray[5];
        const int maxSize = 5;

    public:

        Stack() {
            top = -1;
        }

        void push(int value) {
            if(top == maxSize - 1) {
                cout << "Stack Overflow" << endl;
            } else {
                top++;
                stackArray[top] = value;
                cout << value << " pushed into stack" << endl;
            }
        }

        void pop () {

            if(top == -1) {
                cout << "Stack UnderFlow " << endl;
            } else {
                cout << stackArray[top] << " popped from stack" << endl;
                top--;
            }
        }
    };
};
```

```

    }
}

int peek() {

    if(top == -1) {
        cout << "Stack is Empty";
        return -1;
    } else {
        return stackArray[top];
    }
}

bool isEmpty() {
    return top == -1;
}

void emptyStack() {
    while(!isEmpty()) {
        pop();
    }

    cout << stackArray[top] << endl;
}

};

```

```

int main() {

    Stack stack;

    stack.push(20);
    stack.push(30);
    stack.push(50);

    stack.pop();
}

```

```

        stack.emptyStack();

        cout << stack.isEmpty() ;
        cout << stack.peek();

        return 0;

}

```

### Output:



```

Select C:\Users\DIRECTBUY\Desktop\task.exe
20 pushed into stack
30 pushed into stack
50 pushed into stack
50 popped from stack
030
-----

```

### Question #2:

```

#include<iostream>
#include<string>

using namespace std;

int ch;
int temp;
int size=5;
string n;

class STACK{

    private:
        string Array[5];
        int top;

    public:

```

```

STACK(){
    top=-1;
};

string push(string n){
    if(top==size-1){
        return 0;
    }
    else{
        top++;
        Array[top]=n;
        return n;
    }
};

string pop() {

    if(isEmpty()){
        return 0;
    }
    else{
        Array[top];
        top--;
        return Array[top];
    }
};

string display(){

    if(isEmpty())
    {
        return 0;
    }
    else{
        cout<<"Reversed Elements: "<<endl;
        while(top!=-1){
            cout<<Array[top]<<endl;
            top--;
        }
    }
};

```

```

        bool isEmpty(){
            return top==-1;
        };

};

int main() {

    STACK stack;

    stack.push(" I");
    stack.push(" Am ");
    stack.push(" Here ");

    string one = stack.pop();
    string two = stack.pop();
    string three = stack.pop();

    stack.push(three);
    stack.push(two);
    stack.push(one);

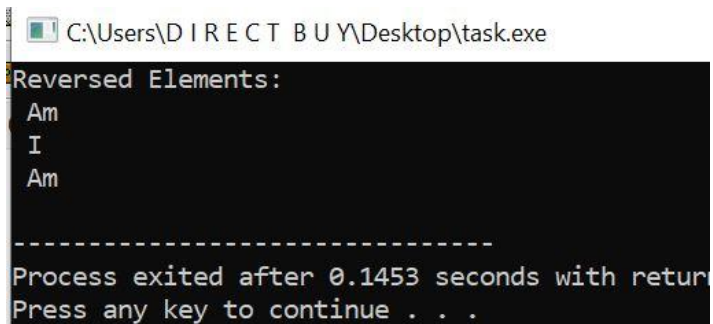
    stack.display();

    return 0;

}

```

### Output:



```

C:\Users\DIRECT BUY\Desktop\task.exe
Reversed Elements:
Am
I
Am
-----
Process exited after 0.1453 seconds with return
Press any key to continue . . .

```

