MAX stack using two stack

```
class MaxStack {
private:
    std::stack<int> stk;
    std::stack<int> maxStk;

public:
    MaxStack() {}

    void push(int x) {
        stk.push(x);
        if (maxStk.empty() || x >= maxStk.top()) {
            maxStk.push(x);
        }
    }

    int pop() {
        if (stk.empty()) return -1;
        int top = stk.top();
        stk.pop();
        if (!maxStk.empty() && top == maxStk.top()) {
            maxStk.pop();
        }
        return top;
    }

    int top() {
        return stk.empty() ? -1 : stk.top();
    }

    int peekMax() {
        return maxStk.empty() ? -1 : maxStk.top();
    }

    int popMax() {
        if (maxStk.empty()) return -1;
        int maxVal = maxStk.top();
        std::stack<int> temp;

        while (!stk.empty() && stk.top() != maxVal) {
            temp.push(stk.top());
            stk.pop();
        }

        if (!stk.empty()) stk.pop();
        maxStk.pop();

        while (!temp.empty()) {
```

```
            push(temp.top());
            temp.pop();
        }

        return maxVal;
    }
};
```