

min stack

```
class MinStack {
public:
    vector<int> stack;
    vector<int> minS;
    int min;
    MinStack() {
        min = 0;
        printf("stack init\n");
    }

    void push(int val) {
        stack.push_back(val);
        printf("push back %d %d\n",val,stack.size());
        if (val <= min || stack.size() == 1){
            min = val;
            minS.push_back(val);
            printf("min : %d\n",min);
        }
    }

    void pop() {
        if (!stack.empty()){
            if (stack[stack.size()-1] == min){
                printf("NEw min: %d\n",minS[minS.size()-1]);
                if (minS.size()> 1){
                    min = minS[minS.size()-2];
                    minS.pop_back();
                    printf("min popped\n");
                }else{
                    minS.pop_back();
                    min = 0;
                }
            }
            stack.pop_back();
        }
    }
};
```

```
        printf("val popped");
    }
}

int top() {
    return stack[stack.size()-1];
}

int getMin() {
    printf("%d\n",min);
    return min;
}
};
```