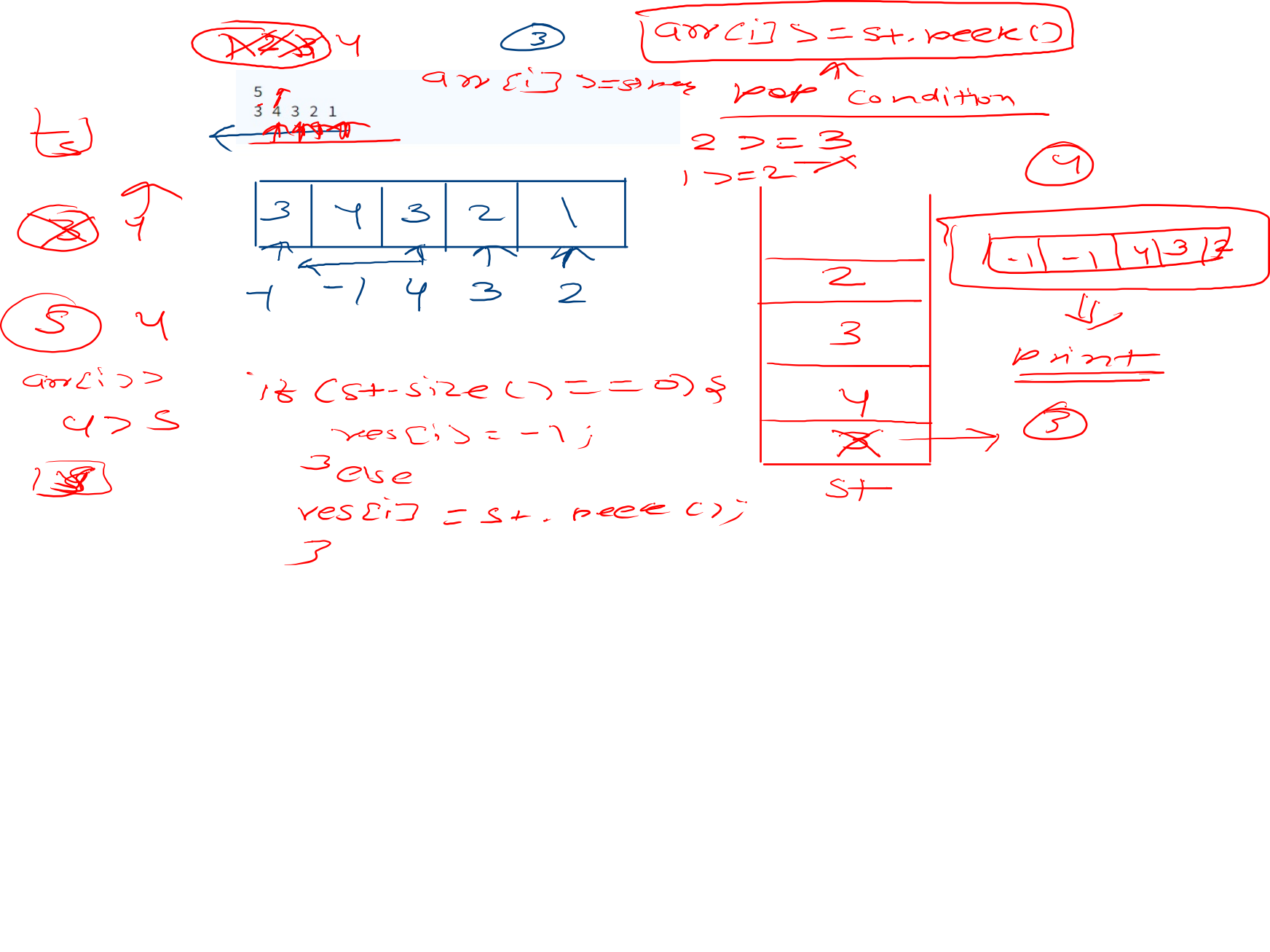

arr[i] >= st.peek()
pop condition
2 >= 3
1 >= 2
5
3 4 3 2 1
3 4 3 2 1
-1 -1 4 3 2
print
if (st.size() == 0) {
res[i] = -1;
} else
res[i] = st.peek();
}
st

Next greater element on left 1

```
public static void main(String[] args) {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution.
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int[] arr = new int[n];
    for(int i=0;i<n;i++){
        arr[i]=sc.nextInt();
    }
    nextGreaterElement(arr,n);
}
public static void nextGreaterElement(int[] arr,int n){
    int[] res = new int[n];
    Stack<Integer>st = new Stack<>();
    res[0]=-1;
    st.push(arr[0]);
    // traverse on the array
    for(int i=1;i<n;i++){
        while(st.size()>0 && arr[i]>=st.peek()){
            st.pop();
        }
        if(st.size()==0){
            res[i]=-1;
        }else{
            res[i]=st.peek();
        }
        st.push(arr[i]);
    }
    for(int i=0;i<res.length;i++){
        System.out.print(res[i]+" ");
    }
}
}
```

Talking:

res[i] = 1

st.push(0);

for(i=1)

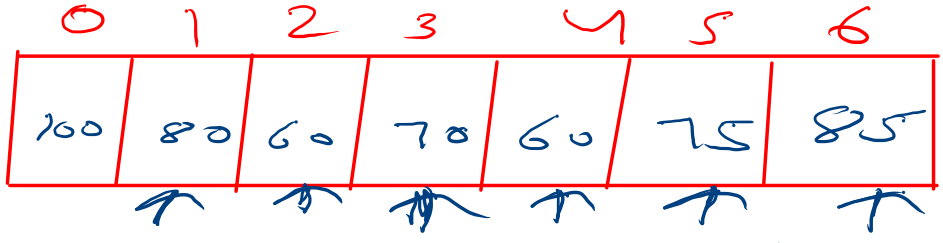
```
7
100 80 60 70 60 75 85
```

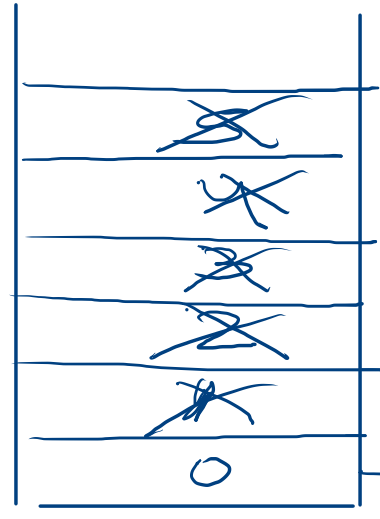
Sample Output 0

85

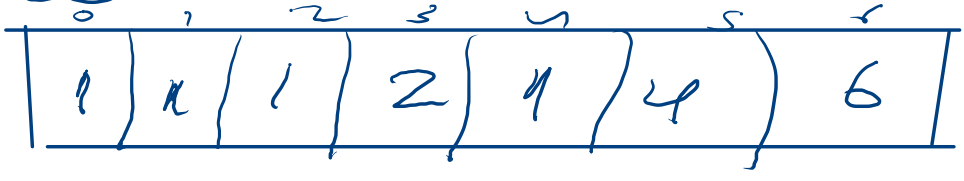
1 1 1 2 3 4 6

75 80 100



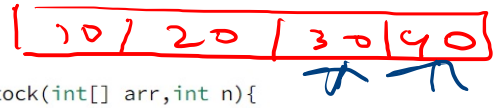


res



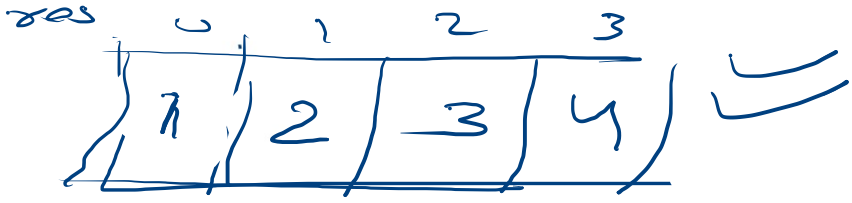
Online Stock Spanner

```
public static void main(String[] args) {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solu
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int[] arr = new int[n];
    for(int i=0;i<n;i++){
        arr[i]=sc.nextInt();
    }
    int[] ans = onlineStock(arr,n);
    for(int i=0;i<ans.length;i++){
        System.out.print(ans[i]+" ");
    }
}
public static int[] onlineStock(int[] arr,int n){
    int[] res = new int[n];
    Stack<Integer> st = new Stack<>();
    res[0]=1;
    st.push(0);
    for(int i=1;i<n;i++){
        while(st.size()>0 && arr[i]>=arr[st.peek()]){
            st.pop();
        }
        if(st.size()==0){
            res[i]=i+1;
        }else{
            res[i] = i-st.peek();
        }
        st.push(i);
    }
    return res;
}
```




```
public static int[] onlineStock(int[] arr,int n){
    int[] res = new int[n];
    Stack<Integer> st = new Stack<>();
    res[0]=1;
    st.push(0);
    for(int i=1;i<n;i++){
        while(st.size()>0 && arr[i]>=arr[st.peek()]){
            st.pop();
        }
        if(st.size()==0){
            res[i]=i+1;
        }else{
            res[i] = i-st.peek();
        }
        st.push(i);
    }
    return res;
}
```

```
7
100 80 60 70 60 75 85
```



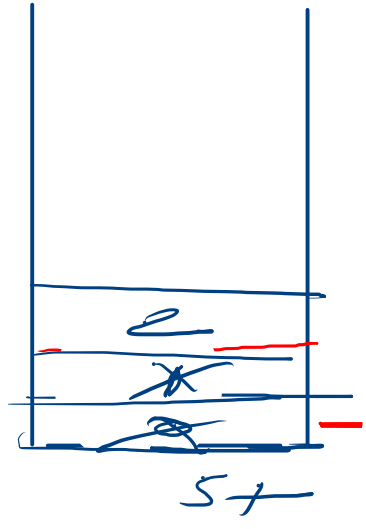
arr[i] >= arr[st.peek()]

20 >= 10 res[3] = 2+1

3

res[i] = i+1 = 2

30 > 20



Google → { Expert / Not Expert }

Application → already designed

→ changes → scratch X

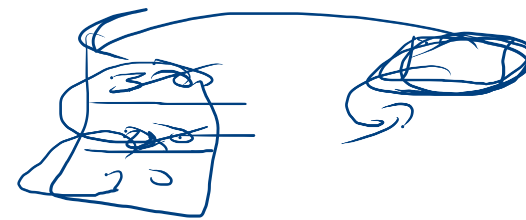
↓

modification → client req

google + U3 gun → Jenanoty

14 → Homepage

0

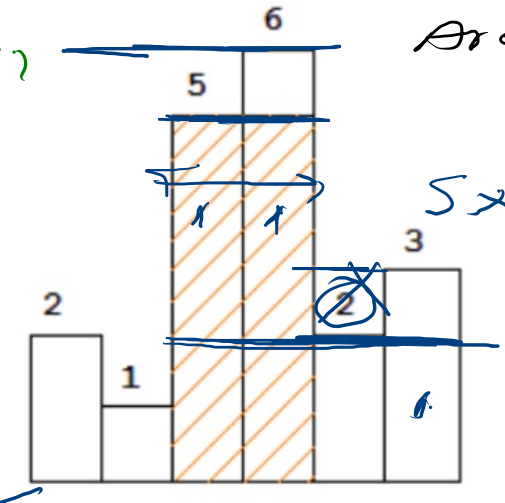


next greater on left

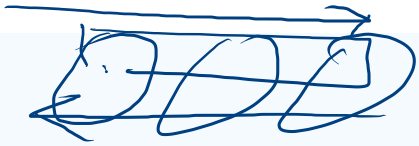
```
6
2 1 5 6 2 3
```

next smaller

Area = length *



6
2 1 5 6 2 3
0 1 2 3 4 5



ans = 0

PSE

0	1	2	3	4	5
-1	-1	1	2	1	4

for(i=0 ; i<n ; i++){

width = nse[i] - pse[i] - 1

area = arr[i] * width;

NSE

0	1	2	3	4	5
1	6	4	4	6	6

4 - 1 - 1

2 x 5 = 10

1 - (-1) - 1

1 + 1 - 1

2 - 1 = 1

```
while(st.size()>0 && arr[st.peek()]
                    <=arr[i]){
        st.pop();
}
```