

```
P = [3,1,4,1,5,9,2,6,5,3,5,8,9,8]
```

```
class Stack:
    def __init__(self):
        self.items = []

    def push(self, item):
        self.items.append(item)

    def pop(self):
        return self.items.pop()

    def peek(self):
        return self.items[len(self.items)-1]

    def isEmpty(self):
        return self.items == []

    def size(self):
        return len(self.items)
```

```
def computeSpans1(P):
    S = [0] * len(P)
    for i in range(0, len(P)):
        k = 0
        done = True
        while ((k <= i) and done):
            if (P[i-k] <= P[i]):
                k = k+1
            else:
                done = False
        S[i] = k
    return S

def computeSpans2(P):
    S = [0] * len(P)
    D = Stack()
    for i in range(0, len(P)):
        h = 0
        done = False
        while ((D.isEmpty()==False) and (done==False)):
            if P[i] >= P[D.peek()]:
                D.pop()
            else:
                done = True
        if D.isEmpty():
            h = -1
        else:
            h = D.peek()
        S[i] = (i-h)
        D.push(i)
    return S
```

```
print(computeSpans1(P))
print(computeSpans2(P))
```

→ Wasn't really sure how to deal with the while loops
 → My paper submission is much more clear on my reasoning