

Stock Portfolio Optimizer

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Details of project: I'm implementing this project by using python programming language

Code:

```
stock portfolio optimizer.py  +
1  n=list(map(int,input().split()))
2  max=float('-inf')
3  sum=0
4  m=len(n)
5  for i in range(m):
6      sum+=n[i]
7      if sum<0:
8          sum=0
9      elif sum>max:
10         max=sum
11  print(max)
```

Input and Output:

STDIN

1 -2 3 10 -4 7 2 -5

Output:

18

Explanation:

In this program I have implemented stock portfolio optimizer which is nothing but maximum sum sub array by using kadane's algorithm.

1. I will take an input n which is in list conversion and then initialize variables $\text{max} = \text{float}(' -inf')$, $\text{sum} = 0$ and $m = \text{len}(n)$.

2. The loop iterates through each element in the list n. if the running sum becomes negative, it is reset to 0. if the running sum is greater than max then update the max value.

3. Finally then print maximum sum sub array

Conclusion:

Finally I have got the desired output 18.