

# Monthly Planner

March

Su	1	
Mo	2	
Tu	3	
We	4	
Th	5	
Fr	6	
Sa	7	
Su	8	
Mo	9	
Tu	10	
We	11	
Th	12	
Fr	13	
Sa	14	
Su	15	
Mo	16	
Tu	17	
We	18	
Th	19	
Fr	20	
Sa	21	
Su	22	
Mo	23	
Tu	24	
We	25	
Th	26	
Fr	27	
Sa	28	
Su	29	
Mo	30	
Tu	31	

Kadane's Algorithm

· take an array

[1, 2, 3, 4, 5, 4, 3, 2, 1]

~~-2, -3, 4, 1, -2, 1, 5, 2~~

[2, -3, 4, -1, -2, 1, 5, 2]

maxi = Int-Min

Initially sum = 0

sum = sum + a[i]

logic

[Step 1] → [-2, -3, 4, -1, -2, 1, 5, 2]

sum = sum + (-2) i = 0

sum = -2

maxi = max (sum, (-2), maxi)

[maxi = -2]

Think one thing - If the sum = (-2),

the next sum = -5 i.e. [-2 + -3]

What we can see is as we go

forward the sum is decreasing in

the -ve zone so there is no point in

carrying on since the sum

is decreasing, if we add further

2

Monday

06:304

0

Appointments

Step 2.

sum = sum + a[i] i = 2

sum = -3

maxi = max (sum, maxi)

No change

maxi = -2

sum < 0, sum = 0

No point in carrying

on

Step 3

sum = sum + a[i] i = 3

sum = 0 + 4

maxi = max (4, -2)

[maxi = 4]

sum > 0, sum = 4

sum = sum + a[i] i = 3

sum = 4 + (-1) = 3

maxi = max (4, 3)

maxi = 4

maxi = 4

sum > 0, sum = 3

sum = 3

M T W T F S S M T W T F S S

1 2 3 4 5 6 7 8 9 10 11 12

13 14 15 16 17 18 19 20 21 22 23 24 25 26

27 28 29 30

March

2015



March  
2015



3

Wed - 10

(Step 5)

$sum = sum + a[i]$   $i=4$   
 $sum (3) + -2 = 1$  Appointments

$maxi = \max(2, 4)$

$maxi = 4$   $4 > 1$

$sum > 0$ ,  $sum = 1$

Step 6

$sum = sum + a[i]$   $i=5$

$1 + 1 = 2$

$maxi = \max(2, 4)$

$maxi = 4$   $4 > 2$

$sum > 0$   $sum = 2$

Step 7

$sum = sum + a[i]$   $i=6$

$2 + 5$

$maxi = \max(7, 4)$

$maxi = 7$   $7 > 4$

$sum > 0$ ,  $sum = 7$

Step 8

$sum = sum + a[i]$   $i=7$

$sum = 9$

$maxi = \max(9, 7)$

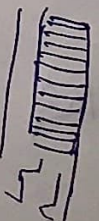
March

end of loop

Wednesday

063-302

4



March  
2015

Appointments

12

$12 - 3 = 1 - 2 = 3$

$11 - 1 = 1$

for  $i=0; i < n; i++$

$i=0$

$j=$

Alternative Method

12

on page