Monthly Planner

March

Kadane's Algorithm

Take an array

~~[1,2,3,7,-2,-4,3,2,-10~~

~~-2,-3,4,-1,4.~~

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

maxi = Int_Min

initially sum=0

sum=sum+a[i]

Logic

[Step1] → [-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

foward the sum is decreasing in

the -ve zone so there is no point in

carrying on since the sum

is decreasing, if we add futhey

2 Monday March 2015

Appointments

∴ sum=0 if (0>sum)

Step2.

sum=sum+a[1] i=1

(0)

sum=-3

maxi=max(sum, maxi)

-3, -2

No change ∵ -2>-3

maxi=-2

∴ sum<0, sum=0

No point in carrying on with -ve sum

Step3

sum=sum+a[i] i=2

sum 0+4

maxi=max(4,-2)

[maxi=4] ∵ 4>-2

∴ sum>0, sum=4

Step4

sum=sum+a[i] i=3

sum=4+(-1)=3

maxi=max(4,3)

maxi=4 ∵ 4>3

∴ sum>0

sum=3

April

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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

(Step 5) sum = sum + a[i] i=4
sum (3) + -2 = 1
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 = 7 + 2
sum = 9
maxi = max(9, 7)
maxi = 9 //
end of loop

12 3 -1 -2 3
i
if i < 0

for(int i=0; i<n; i++)
i=0
j=