

▼ DAA Practical 7

Maximum Sum Subarray Problem

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```
a=[13,-3,-25,20,-3,-16,-23,18,20,-7,12,-5,-22,15,-4,7]
#Ans - 43
```

```
b=[-2,-5,6,-2,-3,1,5,-6]
#Ans - 7
```

```
c=[-2,1,-3,4,-1,2,1,-5,4]
#Ans - 6
```

```
l = 0
h1 = len(a)-1
h2 = len(b)-1
h3 = len(c)-1
def dac(arr,l,h):

    if(l==h):
        return arr[l]
    else:
        mid = (l+h)//2
        lefts = -9999
        sum = 0
        for i in range(mid,l,-1):
            sum+=arr[i]
            if(sum>lefts):
                lefts = sum

        rights = -9999
        sum = 0
        for j in range(mid+1,h):
            sum+=arr[j]
            if(sum>rights):
                rights = sum

        l1 = dac(arr,l,mid)
        r1 = dac(arr,mid+1,h)
        return max(max(l1,r1), lefts+rights)
```

```
dac(a,l,h1)
```

43

```
dac(b,l,h2)
```

7

```
dac(c,l,h3)
```

6

