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Section:

CSE 221 ; Lab Assignment-2

explanation

Task 1 a:

for n^2 solution I just ran a nested loop in the sorted array and checked if it is equal to the desired sum or not.

```
for i in range (len(arr)-1):
    for j in range (i+1, len(arr)):
```

Task 1 b:

here for a n solution I have set to pointer; where

poin-1 = starts from index 0

poin-2 = starts from last index

as it is sorted ; if

sum < target :

p-1 += 1

else :

p-2 -= -1

Task 2a:

for a o.log.n solution to combited a two sorted arrays I normally added the array and ran merge fuction in it.

Task 2b:

Here we to get a $O(n)$ time solution I just used the merged part of the merge sort function. As; both list were sorted from the beginning

Task 3:

~~Here~~

1st step:

Here I first used merge sort on the ending time of the work

2nd step:

Then ran a loop on that sorted work time.

~~if (pre~~

if the last one ends time is lesser than the new worker starting time then; I add it to the count and save that to works end time.

Thus how I got a nlogn solution

task 4:

in task 4 i have done the marge sorting same as task 3.

Then for number of workers creat an array with that number of elements ; default value = 0.

which is actually stores the end time of a work.

then I camare it with every work ; if it is less than or equal to the start time of a new work then count +=1 and move

pointer = (pointer + 1) % (len of list)

to fix the index out of bound problem