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Section: 20

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Task 1

a) Time complexity: $O(n^2)$. Here I have used nested loop to check if ^{any} current elements add up to the target and then return the resulting indices.

b) Time complexity: $O(n)$: Here I have used two pointers one from beginning of the array and other from the end. As the pointers traverse when it reaches the target it returns the indices.

Task 2

a) $O(n \log n)$

Firstly, I merged two arrays into one array and then applied `.sort()` function to achieve the time complexity.

b) $O(n)$:

I have used merged concept by taking two pointers and comparing the values to sort and achieved

the time complexity.

Task 3

Firstly, I have sorted the array which consists of tuple pair according to the ending time basis in ascending order and then I calculated the max that can be taken.

Task 4

Similar to task 3 I have sorted and also I have taken an extra array for the people doing the task ~~based~~ and stored the ending times to calculate the output.