Swap Alternate

Problem Description: You are given with an array of length N, you have to swap every pair of alternate elements in the array.

For example:N= 6

　　　　arr[] = 9 3 6 12 4 32

Output after swapping : 3 9 12 6 32 4

How to approach?

To swap alternate elements in an array, you can run a for loop from the leftmost element till end with an increment of 2 indices each time. To swap adjacent elements that is, elements at ith and (i+1)th index you can use another variable temp to store a value temporarily.

Time complexity for doing this problem is O(n) as you have to traverse this array only once and have to perform a constant time work in each iteration.

Pseudo Code for this problem:

Function swapalternate:
  i=0
 While i less than size-1:
　　　　　temp = arr[i]
　　　　　arr[i] = arr[i + 1]
　　　　　arr[i + 1] = temp
　　　　　Increment i by 2

- ❏ Let us dry run the code for N= 6

　　　　　　arr[] = 9 3 6 12 4 32

　➜ i=0
　　temp=9
　　arr[0]=3
　　arr[1]=9

　➜ i=2
　　temp=6
　　arr[2]=12
　　arr[3]=6

➔ i=4
temp=4
arr[4]=32
arr[5]=4

So final output:
arr[] = 3 9 12 6 32 4