

DSA DAY 3

#qu1

```
def find_first_palim(arr):
    for word in arr:
        left=0
        right=len(word)-1
        while(left<right):
            if word[left]!=word[right]:
                break
            left+=1
            right-=1

        else:
            return word
print(find_first_palim(["adam" ,"ada"]))
```

#que2

```
def return_dist(arr1 , arr2 , d):
    count=0
    for i in range(len(arr1)):
        for j in range(len(arr2)):
            if (arr1[i]-arr2[j]) <=2:
                count+=1
    return count
print(return_dist( [1,4,2,3],[-4,-3,6,10,20,30], 3))
```

#3

```
def flip_image(array):
    for arr in array:
        left=0
        right=len(arr)-1
        while(left<=right):
            arr[left] ,arr[right] =arr[right]^1 ,arr[left]^1
            left+=1
            right-=1
    return array
print(flip_image([[1,1,0], [1,0,1], [0,0,0]]))
```

#question 4

```
def check_status(arr):
    av = []
```

```

    for i in range(len(nums)//2):
        av.append(((min(nums)+max(nums))/2))
        nums.remove(min(nums))
        nums.remove(max(nums))
    return min(av)
check_status()

```

#5

```

def check_most_water_contain(arr):
    left=0
    right=len(arr)-1
    max_res=0
    while(left<right):
        water=min(arr[left] , arr[right]*(right-left))
        max_res=max(water, max_res)
        if arr[left] > arr[right]:
            left+=1
        else:
            right-=1
    return max_res

```

#6

```

def sorted_square(arr):
    n=len(arr)
    for i in range(len(arr)):
        arr[i]=arr[i]**2
    arr.sort()
    return arr
print(sorted_square([-4,-1,0,3,10]))

```

#7

```

def reversePrefix(word, ch):
    if ch in word:
        i = word.index(ch)
        return word[0:i + 1][::-1] + word[i + 1:]
    return word
print(reversePrefix("abcd"))

```

#8

```

def find_nunique(arr):
    unique=set()
    arr.sort()
    left=0
    right=len(arr)-1

```

```
while(left<right):
    avg=(arr[left]+arr[right])//2
    unique.add(avg)
    left+=1
    right-=1
return len(unique)
print(find_nunique([4,1,4,0,3,5]))
```