Day 14: coding Workshop part-3.

1) Function to find given string is Palindrome
function isPalindrome return true if string is palindrome

mom malayalam

mom palindrom malayalam

steps

string I/p → [is_palindrome] → o/p boolean True/False

[a | b | c | \0] compare → [c | b | a] - False

two pointer approach

```
def is_palindrome(string: str) -> bool:

    leftIndex = 0
    rightIndex = len(string) - 1

    result = True

    while (leftIndex < rightIndex):

        if string[leftIndex] != string[rightIndex]:

            result = False
            break

        leftIndex += 1
        rightIndex -= 1

    return result
```

12) Function to print max and min value from an integer array, printMaxMin

I/p array integer → [findMaxMin] → o/p void/None
max / min value

5	8	9	17	1

max ; min

1) max = 5 min = 5 assume first value
2) loop for iterate
check for min & max
if 2 condition

12) def get_max_min_value(array: list):

max = array[0]
min = array[1]

for value in range(1, len(array)-1):

if array[value] > max:
max = array[value]
if array[value] < min:
min = array[value]

return max, min

13) Function to search in a sorted integer array.

4	7	9	10

if 9 is there yes

0	1	2	3	4	5	6	7
1	2	3	4	5	6	7	8

key = 6

ASC order

I/p array, key
int int

Search

O/p bool
True False

Binary Search

```
def search_key(numbers: list, key: int)->boo

    leftIndex = 0
    rightIndex = len(numbers)-1
    found = False

    while( leftIndex <= rightIndex):

        middleIndex = int(leftIndex+(
                          rightIndex-leftIndex
                          //2)

        if (numbers[middleIndex]==key):
            found = True
            break

        if (numbers[middleIndex]>key:
            #you must search on the left side of
              array
            rightIndex = middleIndex -1

        else:
            #you must search on right side of arr
            leftIndex = middleIndex +1

    return found
```