Output:

① Enter number : 7

Enter lower number : 5

Enter lower number = 3

Guessed correct

Enter number = 8

Enter higher number = 10

Guess is correct.

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1. Build a program called Guess My number. The computer will generate a random number between 1 and 10. The user types into a number and the computer replies "Lower". If the random number is lower than the guess. "Higher" if the random number is higher than guess and "CORRECT" if the guess is correct. The player can continue guessing until the guess is right.

```
import random
rno = random.randint(1,10)
guess no = int(input("Enter the number"))
while(rno != guess no)
    if(guess no > rno):
        print("Lower")
    guess no = int(input("Enter lower no"))
    else
        print("Higher")
        guess no = int(input("Enter higher no"))
else
    print("Guess is correct")
```

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Output

1) Enter unit of list 1 = 3
Enter limit of list 2 = 3

Enter element of list 1 = 1
Enter element of list 1 = 2
Enter element of list 1 = 3

Enter element of list 2 = 5
Enter elements of list 2 = 6
Enter elements of list = 7.

Elements of list 1 are
[1, 2, 3]

Elements of list 2 are:
[5, 6, 7]

lists are Symmetric

Date _____

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2. Write a python program to write a seperate integer the list elements which can be read from keyboard & program shud display lists are Symmetrical if both the list contain even and odd numbers

```
l1 = []
l2 = []
n1 = int (input ("Enter the limit for list 1"))
n2 = int (input ("Enter the limit for List 2"))
for i in range (n1):
    ele 1 = int (input ("Enter the elements in list 1"))
    l1.append (ele 1)
for i in range (n2):
    ele 2 = int (input ("Enter the elements in list 2"))
    l2.append (ele 2)
print ("The appended list is", ele 1)
print ("The appended list is", ele 2)
even 1 = 0
even 2 = 0
odd 1 = 0
odd 2 = 0
for i in range (n1):
    if l1 [i] % 2 == 0:
        even 1 += 1
    else:
        odd 1 += 1
for i in range (n2):
    if l2 [i] % 2 == 0:
        even 2 += 1
```

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```
        else : .
            odd 2 + = 1
if (even1 == even2) & (odd 1 == odd 1)
        print ("It is Symmetry")
else:
    print ("It is non symmetrical")
```

Top 3 scores

Jack
John
Jill

Average marks is 82.96

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Given below is the list of marks scored by students. Find Top 3 scores and also display the average marks scored by all students. Implement the solution using Python Programming

Name	Marks
John	86.5
Jack	91.2
Jill	84.5
Harry	72.1
Joe	80.5

```
studentlist = {"John": 86.5, "Jack": 91.8 "Jill": 90.2, "Harry": 72.63
slist = sorted(studentlist, key = studentlist.get, reverse = True)
print("The top 3 scores are")
for i in slist[:3]:
    print()
sum=0
for i in studentlist:
    sum+ = studentlist[i]
print("The average marks is", sum/len(studentlist))
```

Teacher's Signature

Enter a String: NMAMIT

N : 0
M : 1
A : 2
M : 1
I : 4
T : 5

Count of capital letters is 6

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Q4 Write a program to count the capital letters & display the position of each capital letters in the string

```
str1 = input ("Enter the string")
count=0
for ch in str1:
    if ch.isupper():
        count += 1
        print (ch, ":", str1.index(ch))
print ("Count of the capital letters:", count)
```

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Enter a string: Anagha.

A = 2

a = 1

.

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Program to obtain the no of vowels in a given string

```
vowel = {'A':0, 'E':0, 'I':0, 'O':0, 'U':0, 'a':0, 'e':0, 'i':0, 'o':0,
         'u':0}
str = input("Enter the string")
for ch in str:
    if ch in "A,E,I,O,U,a,e,i,o,u":
        vowel[ch] += 1
for c in vowel:
    if c!=0:
        print(c, ":", vowel[c])
```

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Enter a String : !NMAM=IT @ NITTE

NMAMIT NITTE

Enter a string : A@ B ! C <D

ABCD

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Write a Program to remove all the punctuation in a given string

```
str = input("Enter a characters")
res = ""
for i in str
    if i not in "!,#,$,<,>,$,N";
        res += i
        print(i)
```

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Output

Enter string 1 = Nmamit

Enter string 2 = Ni Tte

NM TTE

5

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2) Write 2 strings string 1 & string 2. The merged string as output The merged string should be in capital letters for both the string they appear.

```
ls = " "
u = " "
str 1 = input ("Enter character 1")
str 2 = input ("Enter string 2")
for ch in str 1:
    if ch.isupper():
        u+ = ch.
        cap + = 1
    else.
        l + = ch
for ch in str 2:
    if ch.is upper():
        U + = ch
        up + = 1
    else:
        l + ch
print (l)
print ("Capital letters occured", cap, "times")
print (n)
```

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Enter the key element = 10

key found at index = 0

Enter key element = 60

key not found.

Date _____

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Binary Search

```
def BinarySearch(list, item):
    low = 0
    high = len(list) - 1

    while low <= high:
        mid = (low + high)//2

        if list[mid] == item:
            return mid
        elif list[mid] < item:
            low = mid + 1
        else:
            high = mid - 1

    return -1

l1 = [10, 20, 30, 40, 50]
key = int(input("Enter the key element"))
loc = binarySearch(l1, key)
    if loc == -1
        print("Key not found")
    else
        print("Key is at index =" loc)
```

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Enter the number 3

0
1
1
2
3

Enter value of number : 5

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Write the program in python to find fibbonnaci Series.

```
def fib(n):
    if n==0:
        return 0
    elif n==1:
        return 1
    else:
        return fib(n-1) + fib(n-2)

n = int(input("Enter the number"))
for i in range(0,n):
    for i in range(0,n):
        print(fib(i))
```

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Output:

Enter the list element 4

Enter the element 5

Enter the element 6

Enter the element 7

Enter the element 1

index of smallest element is 3

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Write a program that prompts that enter a list of numbers Invoke the function for smallest element and display the index

```
def index of smallest element (int):
        ele = min (list)
        return list.index (ele)

list = []
n = int (input ("Enter the number"))
for i in range (n):
        ele = int (input ("Enter the element"))
        list.append (ele)

pos = index of smallest element (list)
print ("Index of smallest element"):
```

Teacher's Signature _____

Enter the filename : file.txt

Lines are : 3

Words are : 9

Characters are : 56

textfile.txt

1. This is python programming
2. Test for file
3. Something else

Date _____

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Write a program that will count number of characters, words, lines in a file. Words are seperated by a wide space character. Your program should prompt the user to enter the filename.

```
def small (lst)
    ele = min (lst)

    return lst. index (ele)

lst = [ ]

fread = input("Enter the elements")
myfile = open (fread, 'r')

charcount = 0
linecount = 0
wordcount = 0

for line in myfile:
        linecount += 1.
        charcount += len (line)
        words = line.split()
        wordcount += len (words)
print ("linecount", linecount)
print ("Wordcount", wordcount)
print ("charcount", charcount)
```

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Output:

Enter the filename: marks.txt

Total marks of the student 0 = 130
Average marks of student 0 = 21.6666

Total marks of the student 1 = 137
Average marks of the student 1 = 22.833

Total marks of the Student 2 = 127
Avg marks of the student 2 = 21.16666

Marks.txt

1	20	24	23	26	19	18
2	30	21	16	18	24	28
3	14	16	18	27	29	23

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Suppose the element shows marks of 6 student. Each Course marks is seperated by delimeter. File contains marks for n number of student in separate lines. Write a program that reads for each student & displays the total marks and average. Your program should enter the file name.

```
fread = input ("Enter the fibname")
my file = open (fread, 'r')
i=0
for line in myfile:
    marklist = line.split()
    newmarkslist = list(map(int, marks list))
    total = sum(newmarkslist)
    print ("Total marks of the student", i, "=" total)
    print ("Average marks of student", i, "=" Avg)
i += 1
```

Sl. No.

31/5/23

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