Started on	Tuesday, 15 July 2025, 3:20 PM
State	Finished
Completed on	Tuesday, 15 July 2025, 3:50 PM
Time taken	30 mins 7 secs
Grade	**100.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

Given an array arr[] of size n, its prefix sum array is another array prefixSum[] of the same size,

such that the value of prefixSum[i] is arr[0] + arr[1] + arr[2] ... arr[i]. Write a Python code to generate the prefixSum []

Input : arr[] = {10, 20, 10, 5, 15}
Output : prefixSum[] = {10, 30, 40, 45, 60}

For example:

Test	Input	Result

`n = int(input())`
`arr=createList(n)`
`prefix=fillPrefixSum(arr)`
`print(arr)`
`print(prefix)`
	`3`
	`11`
	`22`
	`33`
		`[11, 22, 33]`
		`[11, 33, 66]`

Answer: (penalty regime: 0 %)

```
def fillPrefixSum(arr):
    prefixSum = [0 for i in range(len(arr))]
    prefixSum[0] = arr[0]
    for i in range(1, len(arr)):
        prefixSum[i] = prefixSum[i - 1] + arr[i]
    return(prefixSum)
def createList(n):
    l=[]
    for i in range(n):
        x=int(input())
        l.append(x)
    return l
```

	Test	Input	Expected	Got	

✔	`n = int(input())`
	`arr=createList(n)`
	`prefix=fillPrefixSum(arr)`
	`print(arr)`
	`print(prefix)`
		`3`
		`11`
		`22`
		`33`
			`[11, 22, 33]`
			`[11, 33, 66]`
				`[11, 22, 33]`
				`[11, 33, 66]`
					✔

✔	`n = int(input())`
	`arr=createList(n)`
	`prefix=fillPrefixSum(arr)`
	`print(arr)`
	`print(prefix)`
		`4`
		`5`
		`8`
		`3`
		`2`
			`[5, 8, 3, 2]`
			`[5, 13, 16, 18]`
				`[5, 8, 3, 2]`
				`[5, 13, 16, 18]`
					✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **2**

Incorrect

Mark 20.00 out of 20.00

Write a python program to count the vowels of the string "Have a Great Day"

For example:

Input	Result
---	Vowel: a 4 Vowel: e 2

Answer: (penalty regime: 0 %)

```
def count(n):
    if n in ('A','E','I','O','U','a','e','i','o','u'):
        print("Vowel:  a",n.count(a))
        print("Vowel:  e",n.count(e))
    else:
        pass
str=input()
count(str)
```

	Input	Expected	
✖	---	Vowel: a 4 Vowel: e 2	✖

Your code must pass all tests to earn any marks. Try again.

Incorrect

Marks for this submission: 0.00/20.00.

Question **3**

Correct

Mark 20.00 out of 20.00

Write a Python program to filter the prime numbers in a list using filter ( )

For example:

Input	Result
4 17 19 35 97	[17, 19, 97]

Answer: (penalty regime: 0 %)

```
def IsPrime(x):
    if all(x % y != 0 for y in range(2, x)):
        return True
    else:
        return False
L=[]
n=int(input())
for i in range(n):
    x=int(input())
    L.append(x)
PrimeList=list(filter(IsPrime,L))
print(PrimeList)
```

	Input	Expected	Got	
✔	4 17 19 35 97	[17, 19, 97]	[17, 19, 97]	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Correct

Mark 20.00 out of 20.00

Write a Python program to find the square root of all elements in a list using list comprehension.

For example:

Input	Result
3 9 121 25	[9.0, 121.0, 25.0] [3.0, 11.0, 5.0]

Answer: (penalty regime: 0 %)

```
n=int(input())
l=[]
for i in range(n):
    x=float(input())
    l.append(x)
sq_l=[item**0.5 for item in l]
print(l)
print(sq_l)
```

	Input	Expected	Got	
✔	3 9 121 25	[9.0, 121.0, 25.0] [3.0, 11.0, 5.0]	[9.0, 121.0, 25.0] [3.0, 11.0, 5.0]	✔
✔	5 2 3.5 6 9 45	[2.0, 3.5, 6.0, 9.0, 45.0] [1.4142135623730951, 1.8708286933869707, 2.449489742783178, 3.0, 6.708203932499369]	[2.0, 3.5, 6.0, 9.0, 45.0] [1.4142135623730951, 1.8708286933869707, 2.449489742783178, 3.0, 6.708203932499369]	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **5**

Correct

Mark 20.00 out of 20.00

Write a Python Program to find whether the given matrix is an identity matrix or not:

if the matrix is an identity matrix ,print True

else print False

For example:

Test	Input	Result
n=int(input()) M=read_matrix(n) print(is_identity(M))	3 1 2 3 4 5 6 7 8 9	False

Answer: (penalty regime: 0 %)

```
def read_matrix(n):
    matrix = [[0]*n for row in range(n)]
    for i in range(n):
        lines = list(map(int, input().split()))
        for j in range(n):
            matrix[i][j] = lines[j]
    return matrix
def is_identity(M):
    Flag= True
    for i in range(len(M)):
        for j in range(len(M[0])):
            if(i==j and M[i][j]!=1):
                Flag=False
                break
            if (i!=j and M[i][j]!=0):
                Flag= False
                break
    return Flag
```

	Test	Input	Expected	Got	
✔	n=int(input()) M=read_matrix(n) print(is_identity(M))	3 1 2 3 4 5 6 7 8 9	False	False	✔
✔	n=int(input()) M=read_matrix(n) print(is_identity(M))	4 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1	True	True	✔
✔	n=int(input()) M=read_matrix(n) print(is_identity(M))	2 1 2 3 4	False	False	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.