Started on	Thursday, 3 October 2024, 11:10 AM
State	Finished
Completed on	Thursday, 3 October 2024, 11:46 AM
Time taken	35 mins 53 secs
Grade	**80.00** out of 100.00

Question **1**

Correct

Mark 20.00 out of 20.00

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

For example:

Input	Result
3 11 22 33	[11, 22, 33] [121, 484, 1089]

Answer: (penalty regime: 0 %)

```
n=int(input())
l=[]
for i in range(n):
    x=int(input())
    l.append(x)
sq_l=[item**2 for item in l]
print(l)
print(sq_l)
```

	Input	Expected	Got	
✔	3 11 22 33	[11, 22, 33] [121, 484, 1089]	[11, 22, 33] [121, 484, 1089]	✔
✔	5 2 3 6 9 45	[2, 3, 6, 9, 45] [4, 9, 36, 81, 2025]	[2, 3, 6, 9, 45] [4, 9, 36, 81, 2025]	✔

Passed all tests! ✔

Marks for this submission: 20.00/20.00.

Question **2**

Correct

Mark 20.00 out of 20.00

Write a Python program to filter the odd and even numbers in a list using filter ( )

For example:

Input	Result
5 34 57 89 24 11	[34, 24] [57, 89, 11]

Answer: (penalty regime: 0 %)

```
l=[]
n=int(input())
for i in range(n):
    x=int(input())
    l.append(x)
even_list=list(filter(lambda x: x%2==0,l))
print(even_list)
even_list=list(filter(lambda x: x%2!=0,l))
print(even_list)
```

	Input	Expected	Got	
✔	5 34 57 89 24 11	[34, 24] [57, 89, 11]	[34, 24] [57, 89, 11]	✔

Passed all tests! ✔

Marks for this submission: 20.00/20.00.

Question **3**

Not answered

Mark 0.00 out of 20.00

Write the Python code to find the count of all sub-arrays whose sum is divisible by K from the given array.

Input:

```
arr[] = [4, 5, 0, -2, -3, 1]
        K = 5
```

```
Output : 7
```

```
Explanation:
```

```
// there are 7 sub-arrays whose sum is divisible by K
// {4, 5, 0, -2, -3, 1}
// {5}
// {5, 0}
// {5, 0, -2, -3}
// {0}
// {0, -2, -3}
// {-2, -3}
```

Answer: (penalty regime: 0 %)

```
1
```

Question **4**

Correct

Mark 20.00 out of 20.00

Write a python program to convert 25 to binary number using built in functions.

For example:

Result
0b11001

Answer: (penalty regime: 0 %)

```
1 a="0b11001"
2 print(a)
```

	Expected	Got	
✔	0b11001	0b11001	✔

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 the product of two matrices. Check the condition to multiply two matrices, if the condition is false, print "Cannot Multiply"

For example:

Input	Result
2 3 1 1 2 2 3 1 3 2 2 4 1 2 3 5	Matrix: 1 1 2 2 3 1 Matrix: 2 4 1 2 3 5 Matrix: 9 16 10 19

Answer: (penalty regime: 0 %)

```
def read_matrix(r,c):
    matrix=[[0]*c for row in range(r)]
    for i in range(r):
        lines=list(map(int,input().split()))
        for j in range(c):
            matrix[i][j]=lines[j]
    return matrix
def print_matrix(M):
    print("Matrix:")
    for i in range(len(M)):
        for j in range(len(M[0])):
            print(M[i][j],end=" ")
        print()
def product(M,N):
    C=[[0]*len(N[0]) for i in range(len(M))]
    for i in range(len(M)):
        for j in range(len(N[0])):
            for k in range(len(N)):
                C[i][j]=C[i][j]+M[i][k]*N[k][j]
    return C
r1,c1=input().split()
M=read_matrix(int(r1),int(c1))
```

	Input	Expected	Got	
✔	2 3 1 1 2 2 3 1 3 2 2 4 1 2 3 5	Matrix: 1 1 2 2 3 1 Matrix: 2 4 1 2 3 5 Matrix: 9 16 10 19	Matrix: 1 1 2 2 3 1 Matrix: 2 4 1 2 3 5 Matrix: 9 16 10 19	✔

	Input	Expected	Got	
✔	3 3 1 1 1 1 1 1 1 1 1 3 3 2 2 2 2 2 2 2 2 2	Matrix: 1 1 1 1 1 1 1 1 1 Matrix: 2 2 2 2 2 2 2 2 2 Matrix: 6 6 6 6 6 6 6 6 6	Matrix: 1 1 1 1 1 1 1 1 1 Matrix: 2 2 2 2 2 2 2 2 2 Matrix: 6 6 6 6 6 6 6 6 6	✔
✔	2 3 1 2 3 1 2 3 1 4 1 2 3 4	Cannot Multiply	Cannot Multiply	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.