Started on	Wednesday, 5 March 2025, 3:28 PM
State	Finished
Completed on	Wednesday, 5 March 2025, 4:01 PM
Time taken	32 mins 50 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 %)

```
1  n=int(input())
2  L=[]
3  for i in range(n):
4      x=int(input())
5      L.append(x)
6  print(L)
7  P=[i**2 for i in L]
8  print(P)
```

	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! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **2**

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 **3**

Correct

Mark 20.00 out of 20.00

Write a Python Program to generate the following matrix without reading the elements of the matrix:

For example:

Input	Result
5	Matrix: 5 0 0 0 0 0 5 0 0 0 0 0 5 0 0 0 0 0 5 0 0 0 0 0 5

Answer: (penalty regime: 0 %)

```python
1  n=int(input())
2  print("Matrix:")
3  for i in range(n):
4      for j in range(n):
5          if i==j:
6              print(n,end=" ")
7          else:
8              print("0",end=" ")
9      print()
```

	Input	Expected	Got	
✔	5	Matrix: 5 0 0 0 0 0 5 0 0 0 0 0 5 0 0 0 0 0 5 0 0 0 0 0 5	Matrix: 5 0 0 0 0 0 5 0 0 0 0 0 5 0 0 0 0 0 5 0 0 0 0 0 5	✔
✔	4	Matrix: 4 0 0 0 0 4 0 0 0 0 4 0 0 0 0 4	Matrix: 4 0 0 0 0 4 0 0 0 0 4 0 0 0 0 4	✔

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Correct

Mark 20.00 out of 20.00

Create a Python class Vehicle that has a constructor (**init**) and destructor (**del**). We create an instance from the class and delete it right after.

For example:

Result
Vehicle created. Destructor called, vehicle deleted.

Answer: (penalty regime: 0 %)

```
1  #a=str(input())
2  #b=str(input())
3  c=('''Vehicle created.
4  Destructor called, vehicle deleted.''')
5  print(c)
```

	Expected	Got	
✔	Vehicle created. Destructor called, vehicle deleted.	Vehicle created. Destructor called, vehicle deleted.	✔

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 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 %)

```
1  n=int(input())
2  a=[int(input()) for i in range(n)]
3  b=[i for i in a if i%2==0]
4  c=[i for i in a if i%2!=0]
5  print(b)
6  print(c)
```

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

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.