

1. Use a python code to display the following star pattern using the for loop

```
❏ n=int(input("enter the number "))
#upper Triangle
for i in range(n):
    for j in range(i + 1):
        print('*', end=" ")
    print()
# lower triangle
for i in range(n):
    for j in range(n - i - 1):
        print('*', end=" ")
    print()
```

enter the number 7

```
*
**
***
****
*****
*****
*****
*****
****
***
**
*
```

2. Use looping to output the elements from a provided list present at odd indexes. my_list = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]

```
❏ my_list = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
l = my_list[1::2]
print(l)
```

```
[20, 40, 60, 80, 100]
```

3. Write a code that appends the type of elements from a given list. Input x = [23, 'Python', 23.98] Expected output [23, 'Python', 23.98] [, ,]

```
❏ x = [23, 'Python', 23.98]
   lst=[]
   print(x)
   for l in x:
       lst.append(type(l))
   print(lst)
```

```
[23, 'Python', 23.98]
[<class 'int'>, <class 'str'>, <class 'float'>]
```

4. Write a function that takes a list and returns a new list with unique items of the first list. Sample List: [1,2,3,3,3,3,4,5] Unique List: [1, 2, 3, 4, 5]

```
❏ Sample_List= [1,2,3,3,3,3,4,5]

def uniquefunction(lst):
    unique_list=[]
    for x in Sample_List:
        if x not in unique_list:
            unique_list.append(x)
    print("Unique List ",unique_list)

uniquefunction(Sample_List)
```

```
Unique List  [1, 2, 3, 4, 5]
```

5. Write a function that accepts a string and calculate the number of upper-case letters and lower-case letters. Input String: 'The quick Brow Fox' Expected Output: No. of Upper-case characters: 3 No. of Lower-case Characters: 12

```
st= 'The quick Brow Fox&'
upperCount=0
LowerCount=0
for element in range(0, len(st)):
    if st[element].isupper():
        upperCount=upperCount+1
    elif st[element].islower():
        LowerCount=LowerCount+1
    elif st[element].isspace():
        LowerCount=LowerCount
        upperCount=upperCount
    else:
        LowerCount=LowerCount
        upperCount=upperCount
print("No. of Upper-case characters: ",upperCount)
print("No. of Lower-case Characters: ",LowerCount)
```

```
No. of Upper-case characters:  3
No. of Lower-case Characters:  12
```