Machine Learning Assignment-2

Singam Manasvi

Course Id: CS 5710

CRN: 23921

700742501

GitHub link: https://github.com/singammanasvi9440/Assignment2

1.

```
#1
for i in range(1,6):
  for j in range(1,i):
    print("*",end=' ')
  print("\r")
for i in range(6,1,-1):
  for j in range(1,i):
    print("*",end=' ')
  print("\r")
```

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

Explanation:

Use for() loop to print the pattern

“\r” is used to escape character

2.

```
[23] #2
     my_list = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
     n=len(my_list)
     for i in range(0,n):
       if i%2!=0:
         print(my_list[i])
```

```
20
40
60
80
100
```

Explanation:

Use for loop and if the index value is odd, then print the value.

3.

```
#3
x = [23,'python',23.98]
n=len(x)

types=[]
for i in x:
  types.append(type(i))
print(x)
print(types)
```

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

Check the data type of the elements using type () function and add it to the list using append ().

4.

```
[29] #4
     import numpy as np
     Sample_List=[1,2,3,3,3,3,4,5]
     a=np.unique(Sample_List)
     print(Sample_List)
     print(a)
```

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

To get the unique elements, use unique () function.

5.

```
#5
def count_char(string):
  upper_char=0
  lower_char=0
  for char in string:
    if char.isupper():
      upper_char+=1
    elif char.islower():
      lower_char+=1
  return upper_char,lower_char

input_string='The quick Brow Fox'
upper_char,lower_char=count_char(input_string)
print('No. of Upper-case characters:',upper_char)
print('No. of Upper-case characters:',lower_char)
```

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

Use isupper() function to find out the upper letter characters.

Use islower() function to find out the lower letter characters.

Increase the count of the lower- and upper-case letters in found.