MACHINE LEARNING ASSIGNMENT 2
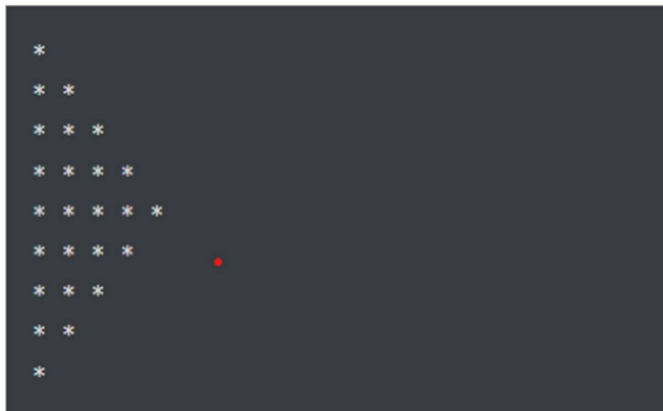
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GitHub link: https://github.com/rupamallempati/MLAssignment2.git

Video link: https://drive.google.com/file/d/1Mhx0J_xTz52fdGxUCpDu6-Im2Nyd9f1r/view?usp=share_link

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

Source code:

```
#star pattern using the for loop
for i in range(0,6):
    for j in range(0,i):
        print("*",end=" ")
    print("\n")
for k in range(4,-1,-1):
    for l in range(0,k):
        print("*",end=" ")
    print("\n")
```

output:

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

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]

Source code:

#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]

#the index starts from 0 so the output will be [20,40,60,80,100]

for i in range(len(my_list)):

  if((i%2)!=0):

    print(my_list[i])

output:

```
#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]
#the index starts from 0 so the output will be [20,40,60,80,100]
for i in range(len(my_list)):
    if((i%2)!=0):
        print(my_list[i])
```

```
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]

[<class 'int'> <class 'str'> <class 'float'>]

Source code:

```
#Write a code that appends the type of elements from a given list.
x = [23, "Python", 23.98]
#type function will help to get the datatype of the particular element x
for i in x:
    print(type(i),end=" ")
```

Output:

```
#Write a code that appends the type of elements from a given list.
x = [23, "Python", 23.98]
#type function will help to get the datatype of the particular elementx
for i in x:
    print(type(i),end=" ")
```

```
<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]

Source code:

```
#@sample list
list=[1,2,3,3,3,3,4,5]

new_list=[]
for i in list:
    if i not in new_list:
        #initially the single elements will appends to thelist if theelement is unique it appends to the list
        new_list.append(i)

print(new_list)
```

output:

```
#@sample list
list=[1,2,3,3,3,3,4,5]

new_list=[]
for i in list:
    if i not in new_list:
        #initially the single elements will appends to thelist if theelement is unique it appends to the list
        new_list.append(i)

print(new_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

Source code:

```
string='The quick Brow Fox'
upperCase=0;
lowerCase=0;
for i in string:
   #ord function is used to get the ascii value of the alphabet
   if(ord(i)>=65 and ord(i)<=90):
     upperCase=upperCase+1
   elif(ord(i)>=97 and ord(i)<=122):
     lowerCase=lowerCase+1
print("No. of Upper-case characters: ",upperCase)
print("No. of Upper-case characters: ",lowerCase)
```

output:

```python
#Write a function that accepts a string and calculate the number of upper-case letters and lower-case letters.
string='The quick Brow Fox'
upperCase=0;
lowerCase=0;
for i in string:
    #ord function is used to get the ascii value of the alphabet
    if(ord(i)>=65 and ord(i)<=90):
        upperCase=upperCase+1
    elif(ord(i)>=97 and ord(i)<=122):
        lowerCase=lowerCase+1
print("No. of Upper-case characters: ",upperCase)
print("No. of Upper-case characters: ",lowerCase)
```

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