ML ASSIGNMENT 1

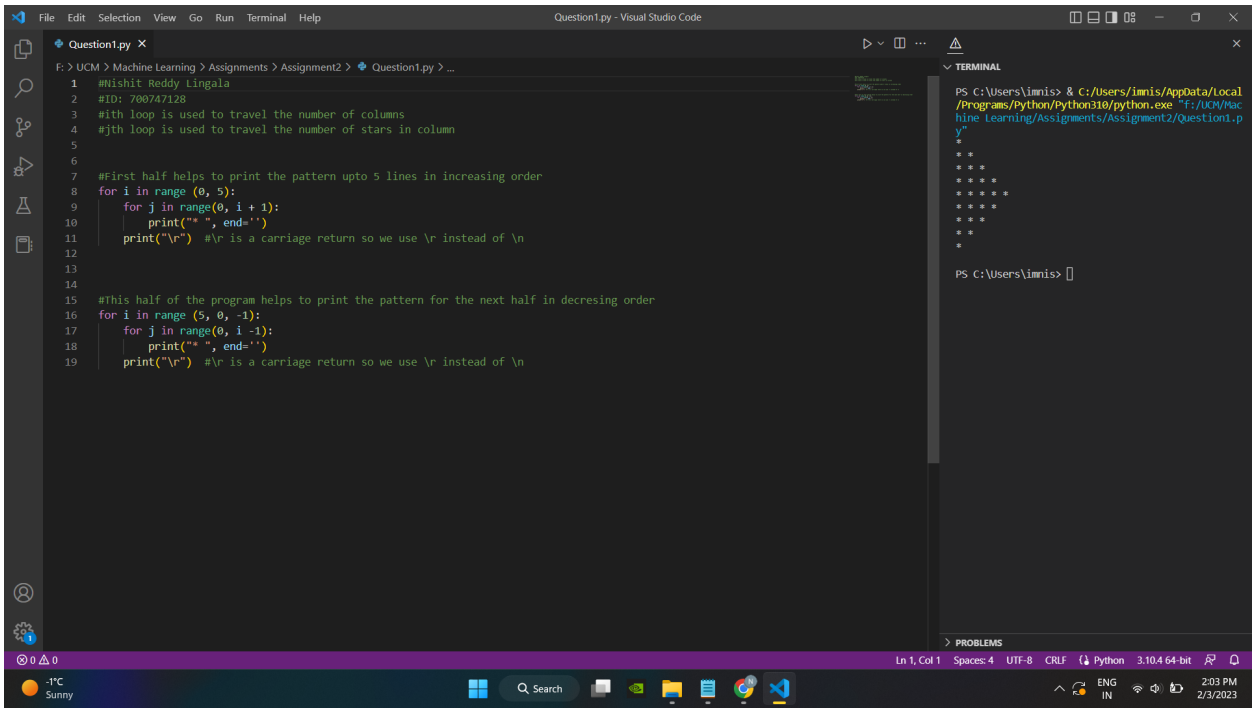
NAME : Nishit Reddy Lingala

Id: 700747128

Git hub: https://github.com/Nishitreddy/machine_learning.git

Question1

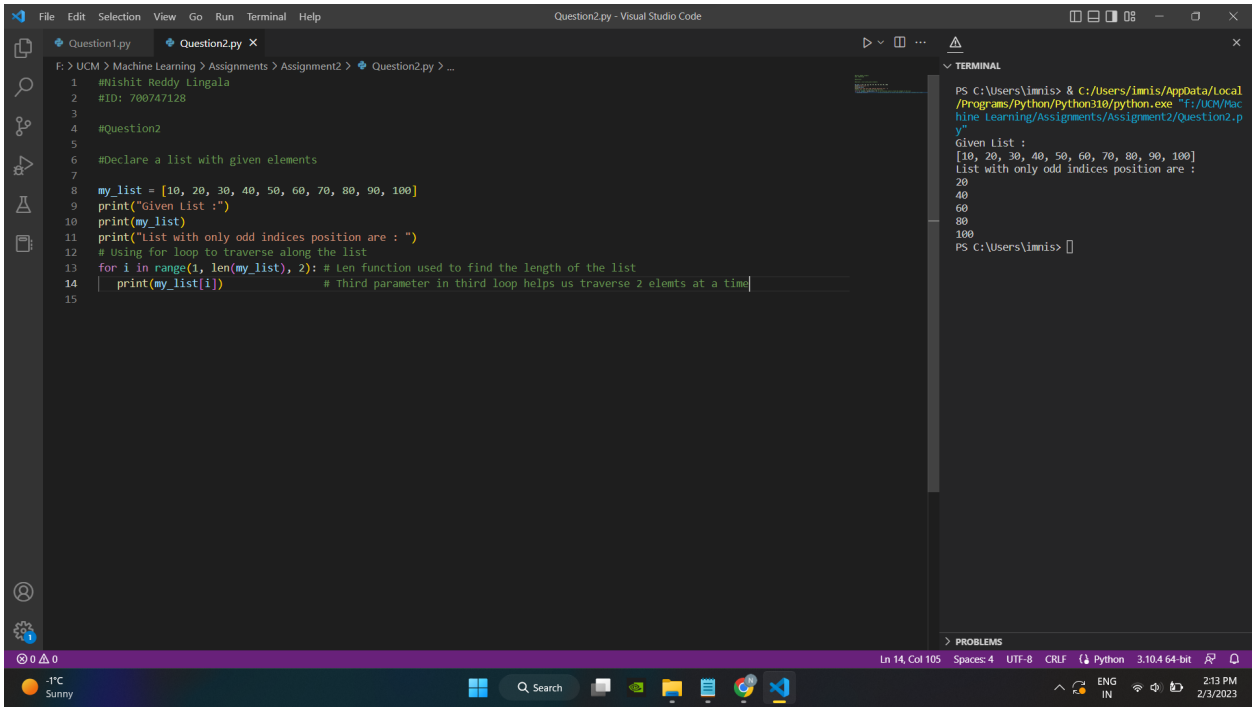
```
for i in range (0, 5):
    for j in range(0, i + 1):
        print("* ", end='')
    print("\r")  #\r is a carriage return so we use \r instead of \n

#This half of the program helps to print the pattern for the next half in decresing order
for i in range (5, 0, -1):
    for j in range(0, i -1):
        print("* ", end='')
    print("\r")  #\r is a carriage return so we use \r instead of \n
```



Explanation:
#ith loop is used to travel the number of columns
#jth loop is used to travel the number of stars in column
#First half helps to print the pattern upto 5 lines in increasing order
#\r is a carriage return so we use \r instead of \n
#Second half of the program helps to print the pattern for the next half in decresing order

Question2

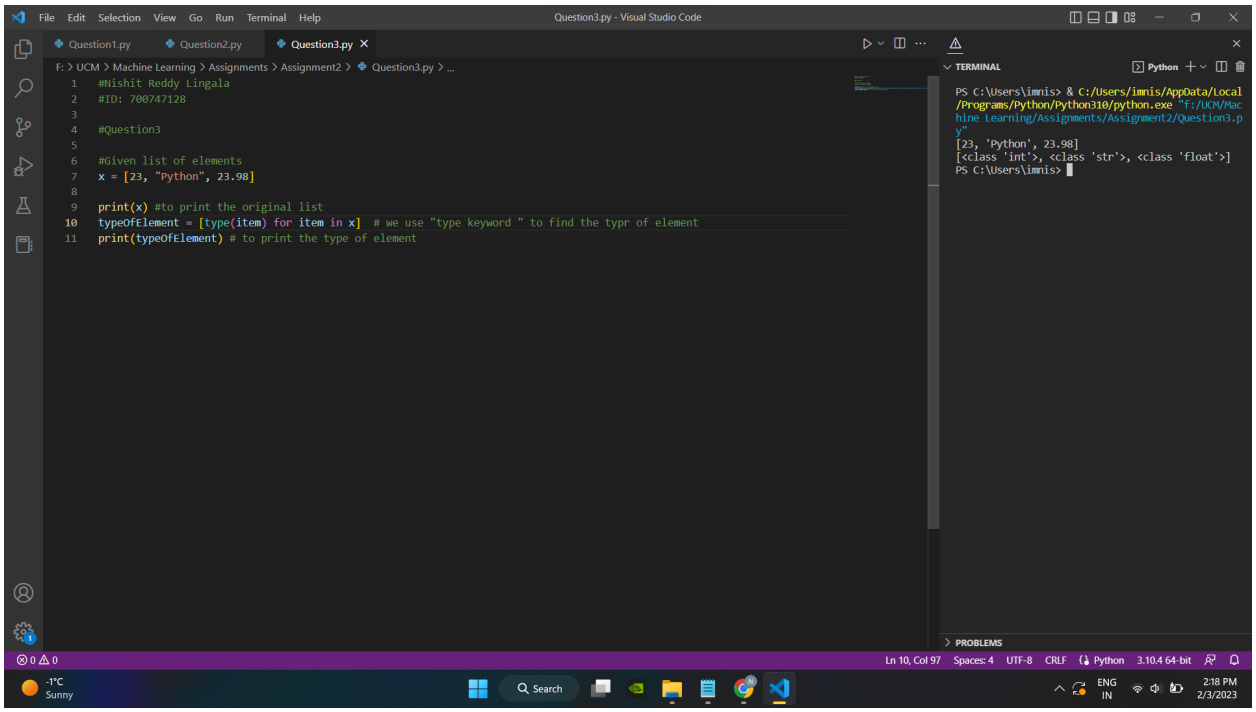
```
my_list = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
print("Given List :")
print(my_list)
print("List with only odd indices position are : ")
for i in range(1, len(my_list), 2):
   print(my_list[i])
```



Explanation:
#Declare a list with given elements
Using for loop to traverse along the list
Len function used to find the length of the list
Third parameter in third loop helps us traverse 2 elemts at a time

Question3

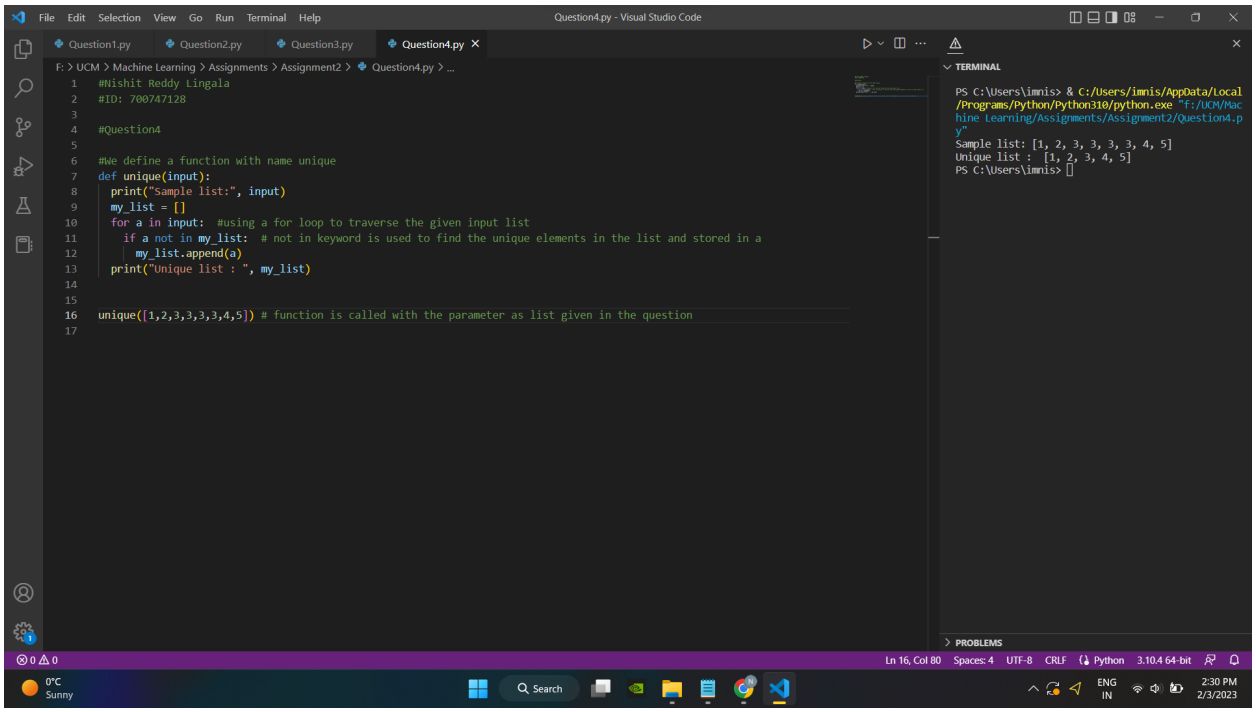
```
x = [23, "Python", 23.98]
print(x)
typeOfElement = [type(item) for item in x]
print(typeOfElement)
```



Explanation:
We are used to find the type of elements in the list
We use “type” keyword to find the data type of the elements.
Store in a variable named typeOfElement and print it.

Question4

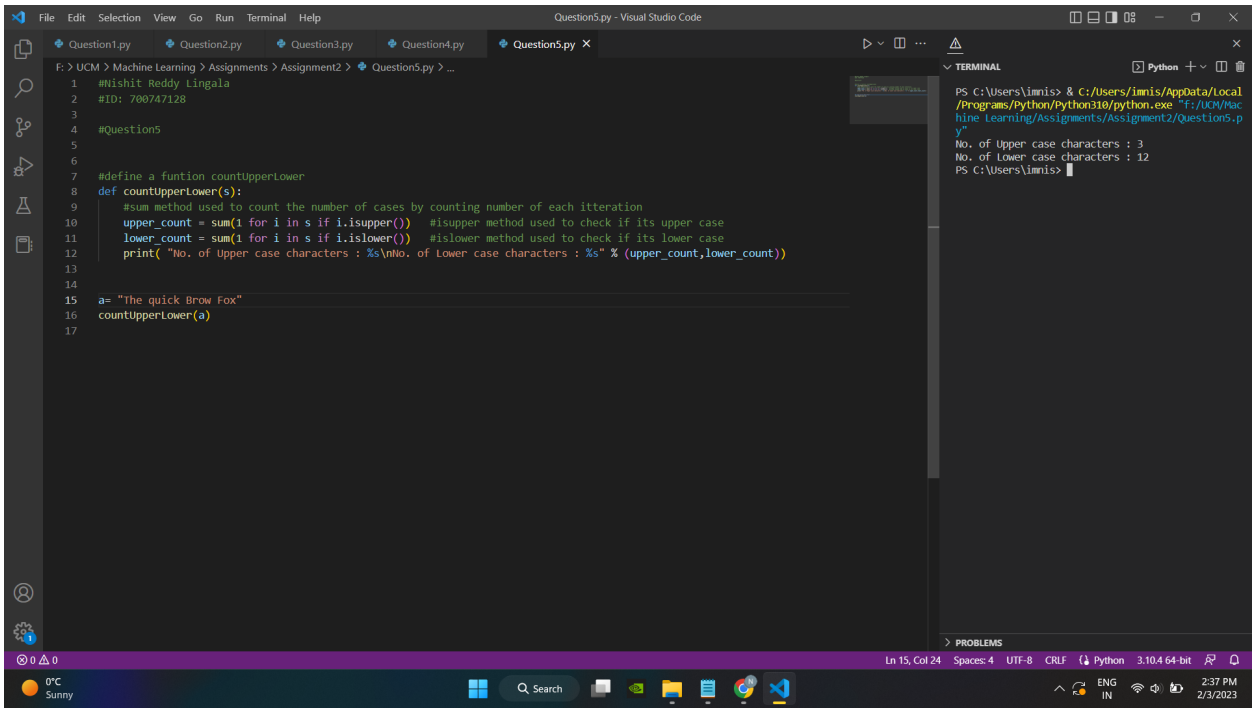
```
def unique(input):
  print("Sample list:", input)
  my_list = []
  for a in input:
    if a not in my_list:
      my_list.append(a)
  print("Unique list : ", my_list)
unique([1,2,3,3,3,3,4,5])
```



Explanation:
#We define a function with name unique
#using a for loop to traverse the given input list
not in keyword is used to find the unique elements in the list and stored in a
function is called with the parameter as list given in the question

Question5

```
def countUpperLower(s):
    upper_count = sum(1 for i in s if i.isupper())
    lower_count = sum(1 for i in s if i.islower())
    print( "No. of Upper case characters : %s\nNo. of Lower case characters : %s" %
(upper_count,lower_count))

a= "The quick Brow Fox"
countUpperLower(a)
```



Explanation:
#define a funtion countUpperLower
#sum method used to count the number of cases by counting number of each itteration
#isupper method used to check if its upper case
#islower method used to check if its lower case