

1. Write your observation after printing all the values. What does len () do?
It returns the length of a variable
2. Write your main observation about index slicing as a whole.
Index slicing is the same technique that is used to access individual characters in a string
3. Write your observations on the in operator.
Out of range is false and inside the range is true which means the numbers which is out of range cannot be true

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In [91]: x1=int(input("enter x1 : "))
         x2=int(input("enter x2 : "))
         y1=int(input("enter y1 : "))
         y2=int(input("enter y2 : "))
         result= (((x2 - x1 )**2) + ((y2-y1)**2) )**0.5
         print("distance between",(x1,x2),"and",(y1,y2),"is : ",result)

enter x1 : 1
enter x2 : 1
enter y1 : 2
enter y2 : 3
distance between (1, 1) and (2, 3) is : 1.0

In [92]: string = "stupid"

In [93]: print(string.replace("stupid", "*****"))

*****

In [94]: nameage = "Christian, 19"
         address = "San mateo rizal"

In [96]: phone = int(input('Please Enter ID: '))

         if phone ==5:
             print(nameage)
             print(address)
         else:
             print('Error.')
```

Please Enter ID: 5
Christian, 19
San mateo rizal

1. How do we display elements of lists, tuples, and strings?
Lists are enclosed in square brackets [] and tuples in parentheses (). A list containing no elements is called an empty list
2. What is the difference between a list, tuple, string and dictionary? Give possible use case for each.

A string is a sequence of characters. A list a sequence of values which can be characters, integers or even another list (referred to as a nested list). A dictionary is a more general version of a list and is made up a set of keys and values where there is a mapping between a given key and its corresponding value. There is no order to the set of keys and values. A tuple is a sequence of values (any type) which makes them similar to lists, but the difference is they are immutable.

3. Discuss the various string methods that were used in the activity. What does each of the methods do?

I've used string replace to replace the given "stupid" into 6 asterisks

Conclusion:

You can use different kind of strings and explore different kind of coding until you get the accomplished task no matter how many errors it takes.

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