

EMT1111: Logic and Problem Solving

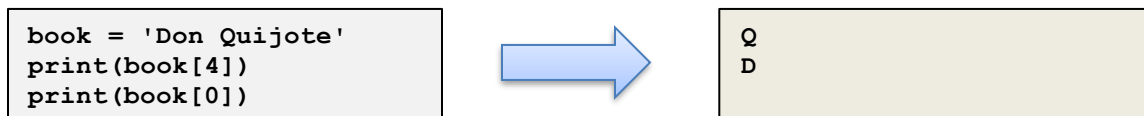
New York City College of Technology | Fall 2017

Problem 1

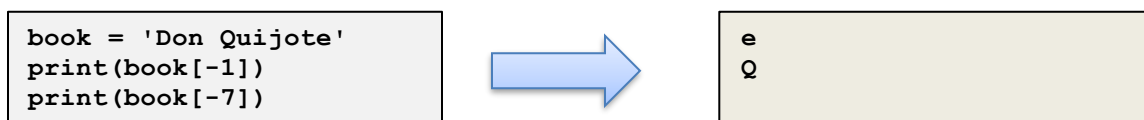
Background

Strings in Python

Python strings are sequences of individual characters. The most common way of extracting single characters from strings is by their index. Here, as with all sequences, it's important to remember that indexing is zero-based; that is, the first item in the sequence is number 0.



If you want to start counting from the end of the string, instead of the beginning, use a negative index. For example, an index of -1 refers to the right-most character of the string.



Traverse a list

Write a Python program for each of the following lists. The program should print what is indicated on the Output column, using the list in the List column. You will write a total of 4 programs. The first one is given for you as example.

List	Output
fruits = ['apples', 'oranges', 'pears', 'apricots', 'grapes']	All the fruits that start with 'a'
italians = ['Maserati', 'Fiat', 'Ferrari', 'Lamborghini', 'Lancia']	All the Italian cars that end with 'i'
cities = ['Rome', 'London', 'Paris', 'Berlin', 'Madrid', 'Lisbon']	All the cities that start with 'L'
animals = ['bull', 'python', 'orangutan', 'kangaroo', 'buffalo']	All the animals that start with 'b'

Example:

```
fruits = ['apples', 'oranges', 'pears', 'apricots', 'grapes']
for fruit in fruits:
    if fruit[0] == 'a':
        print(fruit)
```



```
apples
apricots
```