COD(H)ER-PYTHON

-DAY5

LIST INDEXING

- Indexing in Python is a way to refer the individual items within an iterable by its position.
- In a list, the index which indicates the location of the element always starts with 0 and not 1. This is called as Zero-Based Indexing.
- The first item has index [0], the second item has index [1] , the third item has index [2]etc.

NEGATIVE INDEXING

- You can also use negative indices to get items from a list. They help to retrieve items from a list in reverse order.
- The negative indices begin with -1 and go till -n where n is the number of items in a list.
  - The last item in the list is located at the -1 index.
  - The second last item in the list is located at the -2 index and so on

EXAMPLES

List

1	2	3	4	5	6	7	8

Index ->

0	1	2	3	4	5	6	7

-8	-7	-6	-5	-4	-3	-2	-1

<- Negative Index

-5	-4	-3	-2	-1
'red'	'green'	'blue'	'yellow'	'black'
0	1	2	3	4

LIST SLICING

- Suppose that I have a list of 10 cars that I own.

  my_cars = ['Chrysler', 'Lamborghini', 'Bugatti', 'Porsche', 'Ford', 'Rolls Royce', 'Suzuki', 'Bentley', 'Lexus', 'Tesla']

Let's say, I want to see a list of only the first five cars, then I can use the concept of list slicing.

Syntax: list_name[start_index:end_index]

my_cars = ['Chrysler', 'Lamborghini', 'Bugatti', 'Porsche', 'Ford', 'Rolls Royce', 'Suzuki', 'Bentley', 'Lexus', 'Tesla']

- To list first 5 items from the 'my_cars' list : my_cars[0:5]
- To list last 5 items from the 'my_cars' list : my_cars[5:10]
- To list all the cars in the list starting from 'Lamborghini' to 'Bentley' : my_cars[1:8]
- To list all the items from the 'my_cars' list in reverse order: my_cars[::-1]