Lists

Data structures are a special way of storing and accessing data. Every programming language has some built-in data structures such as arrays, lists, dictionaries etc.

In this module, we will cover the most widely used Python data structures, starting with **lists**. The Jupyter notebook used in the video can be downloaded from below. Please download the notebook, and follow it along with the lecture.

Notebook – Lists

Download

List_remove_append

Description

Remove SPSS from input_list=['SAS', 'R', 'PYTHON', 'SPSS'] and add 'SPARK' in its place.

Execution Time Limit

15 seconds

string to list conversion

Description

Convert a string input_str = 'I love Data Science & Python' to a list by splitting it on ‘&’. The sample output for this string will be:

```
[‘I love Data Science ’, ‘ Python’]
```

Execution Time Limit

15 seconds

List to String

Description

Convert a list ['Pythons syntax is easy to learn', 'Pythons syntax is very clear'] to a string using '&'. The sample output of this string will be:

```
Pythons syntax is easy to learn & Pythons is very clear
```

Note that there is a space on both sides of '&' (as usual in English sentences).

Execution Time Limit

15 seconds

Nested List

Description

Extract Python from a nested list input_list = [['SAS','R'],['Tableau','SQL'],['Python','Java']]

Execution Time Limit

15 seconds

Additional Reading

- Python data structures
- Problem-solving with algorithms

How we insert multiple elements at the same time at the end of a list

Given Input :

a = [1, 2, 3, 4, 5]

b = [6, 7, 8, 9]

Insert the elements of list b at the end list a . So final output

a = [1, 2, 3, 4, 5, 6, 7, 8, 9]

python code :

a.extend(b)

Note :

If you use a.append(b) then it will give wrong output ([1, 2, 3, 4, 5, [6, 7, 8, 9]]) so basically it is appending whole list at the end of original list.