How can a list be converted to a DataFrame in Python?

Authored by

stats writer

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A list can be converted to a DataFrame in Python by using the built-in function "pd.DataFrame()", where "pd" refers to the pandas library. This function takes the list as an input and converts it into a tabular data structure, with each element in the list representing a row in the DataFrame. Additionally, the columns of the DataFrame can be specified by passing a list of column names as an argument to the function. This conversion allows for easier manipulation and analysis of the data in the list, as a DataFrame offers various methods and functions for data manipulation and analysis.

Convert a List to a DataFrame in Python

Often you may want to convert a list to a DataFrame in Python.

Fortunately this is easy to do using the function, which uses the following syntax:

pandas.DataFrame(data=None, index=None, columns=None, ...)

where:

data: The data to convert into a DataFrameindex: Index to use for the resulting DataFramecolumns: Column labels to use for the resulting DataFrame

This tutorial provides several examples of how to use this function in practice.

Example 1: Convert One List to a DataFrame

The following code shows how to convert one list into a pandas DataFrame:

```
import pandas as pd

#create list that contains points scored by 10 basketball players
data =

#convert list to DataFrame
df = pd.DataFrame(data, columns=)

#view resulting DataFrameprint(df)

points
0 4
1 14
2 17
3 22
4 26
5 29
6 33
7 35
```

Example 2: Convert Several Lists to a DataFrame

The following code shows how to convert several lists into a pandas DataFrame:

```
import pandas as pd

#define lists
points =
rebounds =

#convert lists into a single list
data =
data.append(points)
data.append(rebounds)

#view new listdata, ]#convert list into DataFrame
df = pd.DataFrame(data).transpose()
df.columns=

#view resulting DataFrame
df
```

```
points rebounds
0 4 1
1 14 4
```

2 17 4

3 22 5

4 26 8

5 29 7

6 33 5

7 35 6

8 35 9

9 38 11

Example 3: Convert List of Lists to a DataFrame

The following code shows how to convert a list of lists into a pandas DataFrame:

```
import pandas as pd

#define list of lists
data = , , , , ,
, , , , ]

#convert list into DataFrame
df = pd.DataFrame(data, columns=)

#view resulting DataFrame
df
```

points rebounds
0 4 1
1 14 4
2 17 4
3 22 5
4 26 8
5 29 7
6 33 5
7 35 6
8 35 9
9 38 11

You can use the following code to quickly check how many rows and columns are in the resulting DataFrame:

#display number of rows and columns in DataFrame
df.shape

(10, 2)

And we can use the following code to retrieve the names of the columns in the resulting DataFrame:

#display column names of DataFrame

list(df)

The following tutorials explain how to perform other common tasks in pandas: