

Exercise

Turning this all into a DataFrame

You've zipped lists together, created a function to house your code, and even used the function in a list comprehension to generate a list of dictionaries. That was a lot of work and you did a great job!

You will now use all of these to convert the list of dictionaries into a pandas DataFrame. You will see how convenient it is to generate a DataFrame from dictionaries with the `DataFrame()` function from the pandas package.

The `lists2dict()` function, `feature_names` list, and `row_lists` list have been preloaded for this exercise.

Go for it!

Instructions 100 XP

- To use the `DataFrame()` function you need, first import the pandas package with the alias `pd`.
- Create a DataFrame from the list of dictionaries in `list_of_dicts` by calling `pd.DataFrame()`. Assign the resulting DataFrame to `df`.
- Inspect the contents of `df` printing the head of the DataFrame. Head of the DataFrame `df` can be accessed by calling `df.head()`.

[Take Hint \(-50 XP\)](#)

```
script.py
1 # Import the pandas package
2
3
4 # Turn list of lists into list of dicts: list_of_dicts
5 list_of_dicts = [lists2dict(feature_names, sublist) for sublist in row_lists]
6
7 # Turn list of dicts into a DataFrame: df
8 df = ____
9
10 # Print the head of the DataFrame
11
12
```

IPython Shell Slides

In [1]:

Question: Turning this all into a DataFrame

Correct Answer and Explanation:

Code Implementation:

```
# Import the pandas package
import pandas as pd
```

```
# Turn list of lists into list of dicts: list_of_dicts
list_of_dicts = [lists2dict(feature_names, sublist) for sublist in row_lists]
```

```
# Turn list of dicts into a DataFrame: df
df = pd.DataFrame(list_of_dicts)
```

```
# Print the head of the DataFrame
print(df.head())
```

Explanation:

1. ``import pandas as pd``:

- Imports the pandas package, which provides powerful tools for working with data in tabular formats.

2. ``list_of_dicts = [lists2dict(feature_names, sublist) for sublist in row_lists]``:

- A list comprehension is used to convert each sublist in ``row_lists`` into a dictionary using the ``lists2dict`` function.

- The result is a list of dictionaries, each representing a row of data.

3. ``df = pd.DataFrame(list_of_dicts)``:

- Converts the list of dictionaries into a pandas DataFrame. Each dictionary becomes a row, and the keys of the dictionaries are used as column headers.

4. ``print(df.head())``:

- Prints the first five rows of the DataFrame, allowing you to inspect its structure and content.