Dictionary to DataFrame (2) in Python using Pandas - Explanation and Solution

Problem Statement

You are given a DataFrame named cars created from a dictionary. However, the row labels (index) are automatically set to integers from 0 to 6. The tasks are: 1) Define a list named row_labels containing the desired row labels. 2) Set the index of cars to row_labels. 3) Print the updated cars DataFrame to verify the row labels are correctly set.

Given Data

names = ['United States', 'Australia', 'Japan', 'India', 'Russia', 'Morocco', 'Egypt']

dr = [True, False, False, False, True, True, True]

cpc = [809, 731, 588, 18, 200, 70, 45]

cars_dict = {'country': names, 'drives_right': dr, 'cars_per_cap': cpc}

row_labels = ['US', 'AUS', 'JPN', 'IN', 'RU', 'MOR', 'EG']

Instructions

- Import pandas as pd.

- Create a DataFrame named cars from cars_dict.

- Set cars.index to row_labels to update the row labels.

- Print the updated cars DataFrame.

Solution

Here's how to create the DataFrame, update the row labels, and print the updated DataFrame:

```
import pandas as pd

# Given data
names = ['United States', 'Australia', 'Japan', 'India', 'Russia', 'Morocco', 'Egypt']
dr = [True, False, False, False, True, True, True]
cpc = [809, 731, 588, 18, 200, 70, 45]

# Create dictionary
```

```
cars_dict = {
   'country': names,
   'drives_right': dr,
   'cars_per_cap': cpc
}

# Build DataFrame
cars = pd.DataFrame(cars_dict)
print(cars)

# Define row labels
row_labels = ['US', 'AUS', 'JPN', 'IN', 'RU', 'MOR', 'EG']

# Set row labels of cars
cars.index = row_labels

# Print updated DataFrame
print(cars)
```

Explanation

1. We first define the DataFrame cars using the cars_dict dictionary, which organizes the data into columns.

2. The row labels (index) are initially integers (0 to 6). To update them, we define a list row_labels containing the new labels.

3. We set cars.index to row_labels to update the row labels of the DataFrame.

4. Finally, we print the updated cars DataFrame to verify the changes.