Json

Working with nested Json

Examine the file

We are going to start by looking at people_more_data.json.

Import it into a dataframe using pd.read_json()

This is a nested Json-file and therefore some fields will still contain nested json data. We wont be using all data, but the idea is to produce a dataframe with these columns:

| Name | Age | Street | City | Zipcode | email | phone |
|------|-----|--------|------|---------|-------|-------|
| | | | | | | |

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Separate DataFrames

Separate the Address – column into a separate dataframe

Separate the Contacts – column into a separate dataframe

Drop all columns except index, name and age from the original dataframe

```
Tips:
df2 = df1['column']
df = df.drop(['columnA', 'columnB'])
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Loop Address

Use a for-each loop to loop through each row in Adress: for row in address:

get street, city and zipcode and put them in separate lists:
street[] city[] zipcode[]

Create a dictionary with 'street', 'city' and 'zipcode' as keys, and the newly created lists as values: dict_address = {'street' : street, 'city': city, 'zipcode' : zipcode}

Transform the dictionary into a Dataframe

Merge the newly created dataframe with the original one

Tips:

- pd.merge()
- You can access a column for instance 'street' in each row by using row['street'] in the loop



Print the final results

If all went well, you should have something like this:

| | name | age | street | city | zipcode | email | phone |
|----|---------|-----|-----------------|---------------|---------|---------------------|--------------|
| 0 | Alice | 30 | 123 Main St | New York | 10001 | alice@example.com | 123-456-7890 |
| 1 | Bob | 25 | 456 Elm St | Los Angeles | 90001 | bob@example.com | 987-654-3210 |
| 2 | Charlie | 35 | 789 Oak St | Chicago | 60601 | charlie@example.com | 555-123-4567 |
| 3 | David | 28 | 567 Pine St | San Francisco | 94101 | david@example.com | 415-555-1234 |
| 4 | Eva | 32 | 890 Oakwood Dr | Miami | 33101 | eva@example.com | 786-555-5678 |
| 5 | Fiona | 27 | 345 Maple Ln | Seattle | 98101 | fiona@example.com | 206-555-7890 |
| 6 | George | 45 | 678 Elmwood Ave | Boston | 02101 | george@example.com | 617-555-1234 |
| 7 | Hannah | 29 | 456 Oak Lane | Denver | 80201 | hannah@example.com | 303-555-5678 |
| 8 | Isaac | 38 | 789 Cedar Rd | Austin | 73301 | isaac@example.com | 512-555-7890 |
| 9 | Alex | 30 | 12 Main St | New York | 10022 | alex@example.com | 123-456-7890 |
| 10 | Ella | 28 | 24 Oak Ave | Los Angeles | 90001 | ella@example.com | 987-654-3210 |
| 11 | Liam | 32 | 36 Maple Ln | Chicago | 60601 | liam@example.com | 555-123-4567 |
| 12 | Mia | 27 | 48 Elm Rd | San Francisco | 94101 | mia@example.com | 123-789-4560 |
| 13 | Noah | 29 | 60 Pine St | Miami | 33101 | noah@example.com | 987-123-7890 |
| 14 | Olivia | 31 | 72 Cedar Ave | Boston | 02101 | olivia@example.com | 555-789-1234 |
| 15 | Lucas | 26 | 84 Oak Rd | Seattle | 98101 | lucas@example.com | 123-456-7890 |
| 16 | Ava | 33 | 96 Maple Ave | Austin | 73301 | ava@example.com | 555-987-6543 |
| 17 | Sophia | 29 | 15 Elm Rd | Chicago | 60601 | sophia@example.com | 555-123-7890 |
| 18 | Jackson | 31 | 21 Pine St | Los Angeles | 90001 | jackson@example.com | 123-789-4560 |
| 19 | Sophia | 27 | 18 Cedar Ave | San Francisco | 94101 | sophia@example.com | 555-987-6543 |
| 20 | Liam | 30 | 33 Oak Ln | Miami | 33101 | liam@example.com | 123-456-7890 |
| 21 | Olivia | 32 | 27 Main Ave | Boston | 02101 | olivia@example.com | 987-654-3210 |
| 22 | Noah | 28 | 42 Cedar Rd | Austin | 73301 | noah@example.com | 555-123-4567 |
| 23 | Mia | 26 | 39 Elm St | Denver | 80201 | mia@example.com | 123-789-4560 |

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