

## ✓ Pokemon

### ✓ Introduction:

This time you will create the data.

### Step 1. Import the necessary libraries

```
import pandas as pd
```

### ✓ Step 2. Create a data dictionary that looks like the DataFrame below

```
data = {  
    'name': ['Bulbasaur', 'Charmander', 'Squirtle', 'Caterpie'],  
    'evolution': ['Ivysaur', 'Charmeleon', 'Wartortle', 'Metapod'],  
    'type': ['grass', 'fire', 'water', 'bug'],  
    'hp': [45, 39, 44, 45],  
    'pokedex': ['yes', 'no', 'yes', 'no']  
}
```

### ✓ Step 3. Assign it to a variable called pokemon

```
pokemon = pd.DataFrame(data)  
pokemon
```



	name	evolution	type	hp	pokedex
0	Bulbasaur	Ivysaur	grass	45	yes
1	Charmander	Charmeleon	fire	39	no
2	Squirtle	Wartortle	water	44	yes
3	Caterpie	Metapod	bug	45	no

### ✓ Step 4. Ops...it seems the DataFrame columns are in alphabetical order. Place the order of the columns as name, type, hp, evolution, pokedex

```
pokemon = pokemon[['name', 'type', 'hp', 'evolution', 'pokedex']]
pokemon
```



	name	type	hp	evolution	pokedex
0	Bulbasaur	grass	45	Ivysaur	yes
1	Charmander	fire	39	Charmeleon	no
2	Squirtle	water	44	Wartortle	yes
3	Caterpie	bug	45	Metapod	no

✓ Step 5. Add another column called place, and insert what you have in mind.

```
pokemon['place'] = ['Viridian Forest', 'Mt. Ember', 'Cerulean City', 'Route 2']
pokemon
```



```
<ipython-input-17-f6ac8f96d737>:1: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
```

See the caveats in the documentation: <https://pandas.pydata.org/pandas-docs/stable/user>

```
pokemon['place'] = ['Viridian Forest', 'Mt. Ember', 'Cerulean City', 'Route 2']
```

	name	type	hp	evolution	pokedex	place
0	Bulbasaur	grass	45	Ivysaur	yes	Viridian Forest
1	Charmander	fire	39	Charmeleon	no	Mt. Ember
2	Squirtle	water	44	Wartortle	yes	Cerulean City
3	Caterpie	bug	45	Metapod	no	Route 2

✓ Step 6. Present the type of each column

```
pokemon.dtypes
```



0

name	object
------	--------

BONUS: Create your own question and answer it.

type	object
------	--------

hp	int64
----	-------

evolution	object
-----------	--------

✓ bonus: pokemon > 40hp trong pokedex

pokedex	object
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```
filtered_pokemon = pokemon[(pokemon['hp'] > 40) & (pokemon['pokedex'] == 'yes')]
filtered_pokemon
```

name	type	hp	evolution	pokedex	place
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	name	type	hp	evolution	pokedex	place
0	Bulbasaur	grass	45	Ivysaur	yes	Viridian Forest
2	Squirtle	water	44	Wartortle	yes	Cerulean City