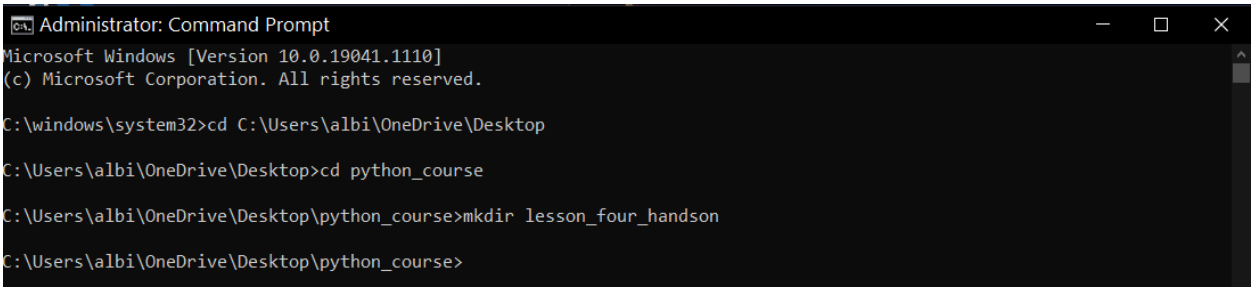
Lesson 4 Hands-On

Alberta "Albi" Kovatcheva

Setup



Requirements

This hands-on is broken into three parts. Please complete each part within your main.py file.

Part 1

1. Create two dictionaries to represent information about two pets. Each dictionary should contain the following information (different for each pet):
   - Pet's Name (This should be the name of your dictionary)
   - Type of Pet
   - Color
   - Nickname
   - Owner's Name
2. Iterate over each dictionary, printing each key-value pair on one line. The output should be similar to the below:
   Type: Cat
   Color: White and Orange
   Nickname: Birchy
   Owner: Kurt
   Type: Cat
   Color: Tortoise Shell
   Nickname: Palnut
   Owner: Olivia

Python Commands:

```
Leonard = {
    "Type": "Cat",
    "Color": "Black & White",
    "Nickname": "Lenny",
```

Lesson 4 Hands-On

Alberta "Albi" Kovatcheva

```
    "Owner": "Ewa & Jan"
}
print(Leonard)

Misha = {
    "Type": "Cat",
    "Color": "Black & Brown",
    "Nickname": "Mishka",
    "Owner": "Basia & Everett"
}
print(Misha)

for key,value in Leonard.items():
    print(key,":",value)

for key,value in Misha.items():
    print(key,":", value)
```

Results:

```
PS C:\Users\albi> & C:/Users/albi/anaconda3/python.exe c:/Users/albi/OneDrive/Desktop/python_course/les
son_four_handson/main.py
{'Type': 'Cat', 'Color': 'Black & White', 'Nickname': 'Lenny', 'Owner': 'Ewa & Jan'}
{'Type': 'Cat', 'Color': 'Black & Brown', 'Nickname': 'Mishka', 'Owner': 'Basia & Everett'}
Type : Cat
Color : Black & White
Nickname : Lenny
Owner : Ewa & Jan
Type : Cat
Color : Black & Brown
Nickname : Mishka
Owner : Basia & Everett
```

Lesson 4 Hands-On

Alberta "Albi" Kovatcheva

Part 2

1. Add three new dictionaries to your program.
   - Each dictionary should represent a city around the world.
2. Add the below dictionaries to your main.py file:
   england = {'Capital': 'London'}
   france = {'Capital': 'Paris'}
   belgium = {'Capital': 'Brussels'}
3. Given the above dictionaries, add the following information to each dictionary:
   - Population
     - The population of England is 53.01 million
     - The population of France is 66.9 million
     - The population of Belgium is 11.35 million
   - Interesting Fact
   - Top Language Spoken by Locals
4. Once you have added the necessary information into the dictionaries, loop through each one and print out all key-value pairs.

Python commands:

```
bulgaria = {"Capital": "Sofia"}
spain = {"Capital": "Madrid"}
denmark = {"Capital": "Copenhagen"}
england = {"Capital": "London"}
france = {"Capital": "Paris"}
belgium = {"Capital": "Brussels"}

bulgaria["population in millions"] = 7
spain["population in millions"] = 46.94
denmark["population in millions"] = 5.81
england["population in millions"] = 53.01
france["population in millions"] = 66.9
belgium["population in millions"] = 11.35

bulgaria["interesting fact"] = "Bulgarian roses are used to make French perfumes."
spain["interesting fact"] = "Spanish people discovered oranges and chocolate."
denmark["interesting fact"] = "Denmark is considered the happiest country in the world."
england["interesting fact"] = "Sparkling wine was invented in England."
france["interesting fact"] = "French people invented the hot air balloon."
belgium["interesting fact"] = "Belgians invented french fries and eat them with mayo."

bulgaria["top language"] = "Bulgarian"
```

Lesson 4 Hands-On

Alberta "Albi" Kovatcheva

```
spain["top language"] = "Spanish"
denmark["top language"] = "Danish"
england["top language"] = "English"
france["top language"] = "French"
belgium["top language"] = "Dutch (and others)"

print(bulgaria)
print(spain)
print(denmark)
print(england)
print(france)
print(belgium)

for key,value in bulgaria.items():
    print(key,":", value)
for key,value in spain.items():
    print(key,":", value)
for key,value in denmark.items():
    print(key,":", value)
for key,value in england.items():
    print(key,":", value)
for key,value in france.items():
    print(key,":", value)
for key,value in belgium.items():
    print(key,":", value)
```

Results:

```
>>> spain = {"Capital": "Madrid"}
>>> denmark = {"Capital": "Copenhagen"}
>>> bulgaria["population in millions"] = 7
>>> spain["population in millions"] = 46.94
>>> denmark["population in millions"] = 5.81
>>> england["population in millions"] = 53.01
>>> spain["interesting fact"] = "Spanish people discovered oranges and chocolate."
>>> denmark["interesting fact"] = "Denmark is considered the happiest country in the world."
>>> england["interesting fact"] = "Sparkling wine was invented in England."
>>> france["interesting fact"] = "French people invented the hot air balloon."
>>> denmark["top language"] = "Danish"
>>> england["top language"] = "English"
>>> france["top language"] = "French"
```

Lesson 4 Hands-On

Alberta "Albi" Kovatcheva

```
>>> belgium["top language"] = "Dutch (and others)"
>>> print(spain)
{'Capital': 'Madrid', 'population in millions': 46.94, 'interesting fact': 'Spanish people discovered oranges and chocolate.', 'top language': 'Spanish'}
>>> print(denmark)
{'Capital': 'London', 'population in millions': 53.01, 'interesting fact': 'Sparkling wine was invented in England.', 'top language': 'English'}
>>> print(france)
{'Capital': 'Paris', 'population in millions': 66.9, 'interesting fact': 'French people invented the hofries and eat them with mayo.', 'top language': 'Dutch (and others)'}
>>> for key,value in bulgaria.items():
...     print(key,":", value)
...
population in millions : 7
interesting fact : Bulgarian roses are used to make French perfumes.
top language : Bulgarian
>>> for key,value in spain.items():
...     print(key,":", value)
...
Capital : Madrid
population in millions : 46.94
interesting fact : Spanish people discovered oranges and chocolate.
top language : Spanish
>>> for key,value in denmark.items():
...     print(key,":", value)
...
Capital : Copenhagen
population in millions : 5.81
interesting fact : Denmark is considered the happiest country in the world.
top language : Danish
>>> for key,value in england.items():
...     print(key,":", value)
...
Capital : London
population in millions : 53.01
interesting fact : Sparkling wine was invented in England.
top language : English
>>> for key,value in france.items():
...     print(key,":", value)
...
```

Lesson 4 Hands-On

Alberta “Albi” Kovatcheva

```
Capital : Paris
population in millions : 66.9
interesting fact : French people invented the hot air balloon.
top language : French
>>> for key,value in belgium.items():
...     print(key,":", value)
...
Capital : Brussels
population in millions : 11.35
interesting fact : Belgians invented french fries and eat them with mayo.
top language : Dutch (and others)
```

Lesson 4 Hands-On

Alberta "Albi" Kovatcheva

Part 3

1. Add a dictionary to your program that replicates a user's pizza order. Name this dictionary pizza_order and it should contain the following:
   - Customer's Name
   - What size pizza they have ordered
   - What type of crust
   - What toppings they would like.
     - Toppings should include at least three separate toppings
2. Next, print out the customer's order:
   - Thank them for their order using their name
   - Print out what they're ordering
   - Print out the list of toppings (minimum 3)
3. Your output should looks similar to the following:
   Thank you for your order, Andrew
   You have ordered a small, thin-crust pizza with the following toppings:
   extra cheese, sausage, bacon
   - Use the print() and get() functions

Python commands:

```
pizza_order = {
   "Customer's name": "Albi",
   "Pizza size": "12 inch",
   "Crust type": "thin-crust",
   "Toppings": "peperoni, mushroom, onion, olives, green pepper, tomato, garlic, and basil"
}
print(pizza_order)

print(
   "Thank you for your order, " +
    pizza_order.get("Customer's name") +
    "\nYou have ordered a " + pizza_order.get("Pizza size") +
    ", " + pizza_order.get("Crust type") +
   " pizza with the following toppings:" +
   "\npeperoni, mushroom, onion, olives, green pepper, tomato, garlic, and basil"
   )
```

Results:

Lesson 4 Hands-On

Alberta “Albi” Kovatcheva

```
>>> print(
...     "Thank you for your order, " +
...      pizza_order.get("Customer's name") +
...      "\nYou have ordered a " + pizza_order.get("Pizza size") +
...      ", " + pizza_order.get("Crust type") +
...     " pizza with the following toppings:" +
...     "\npeperoni, mushroom, onion, olives, green pepper, tomato, garlic, and basil"
...     )
Thank you for your order, Albi
You have ordered a 12 inch, thin-crust pizza with the following toppings:
peperoni, mushroom, onion, olives, green pepper, tomato, garlic, and basil
```