lecture_5_practice

January 23, 2024

1 Practice: Looping through lists and dictionaries

Try out these coding problems to practice looping, lists, and dictionaries

Make a loop that displays "Are you awake yet?" 5 times

[1]:
```
for i in range(5):
    display("Are you awake yet?")
```

```
'Are you awake yet?'
```

```
'Are you awake yet?'
```

```
'Are you awake yet?'
```

```
'Are you awake yet?'
```

```
'Are you awake yet?'
```

Make a list of names (at least three), and save it in a variable called `names`

[2]:
```
names = ["Ryan", "Emma", "Mia"]
```

Now loop over each of those names, and for each name display "[name] is awesome!"

[3]:
```
for user in names:
    display(user + " is awesome!")
```

```
'Ryan is awesome!'
```

```
'Emma is awesome!'
```

```
'Mia is awesome!'
```

Now, do the same thing as before, but for each name, first make a string that has "[name] is awesome!" and save it in a variable, then use the `.upper()` function on the string to make it all uppercase and save it into a variable, then display the final string.

[4]:
```
for user in names:
    upper = (user + " is awesome!").upper()
    display(upper)
```

```
'RYAN IS AWESOME!'
```

```
'EMMA IS AWESOME!'
```

```
'MIA IS AWESOME!'
```

Now, we are going to make a dictionary with information on a photo

[5]:
```
photo_1_info = {
    "width": 800,
    "height": 600,
    "location": "that one mountain",
    "device": "iPhone 6"
}
```

Select and display the width of the photo

[6]:
```
the_width = photo_1_info["width"]
display(the_width)
```

```
800
```

Select and display the location of the photo

[7]:
```
the_location = photo_1_info["location"]
display(the_location)
```

```
'that one mountain'
```

Now we are going to make a list of photo info for you to go through

[8]:
```
photo_info_list = [
    {
        "width": 800,
        "height": 600,
        "location": "that one mountain",
        "device": "iPhone 6"
    },
    {
        "width": 800,
        "height": 600,
        "location": "on the lake",
        "device": "iPhone 5"
    },
    {
        "width": 1600,
        "height": 800,
        "location": "The underground mines",
        "device": "Nokia 3310"
    }
]
```

Now, make a for loop to go through each set of phone info in `photo_info_list`, and for each one, use `print` commands to display the width, height, location, and device

[10]:
```
for photo_info in photo_info_list:
    print("width:"+ str(photo_info["width"]))
    print("height:"+ str(photo_info["height"]))
    print("location:"+ photo_info["location"])
    print("device:"+ photo_info["device"])
    print()
```

```
width:800
height:600
location:that one mountain
device:iPhone 6

width:800
height:600
location:on the lake
device:iPhone 5

width:1600
height:800
location:The underground mines
device:Nokia 3310
```