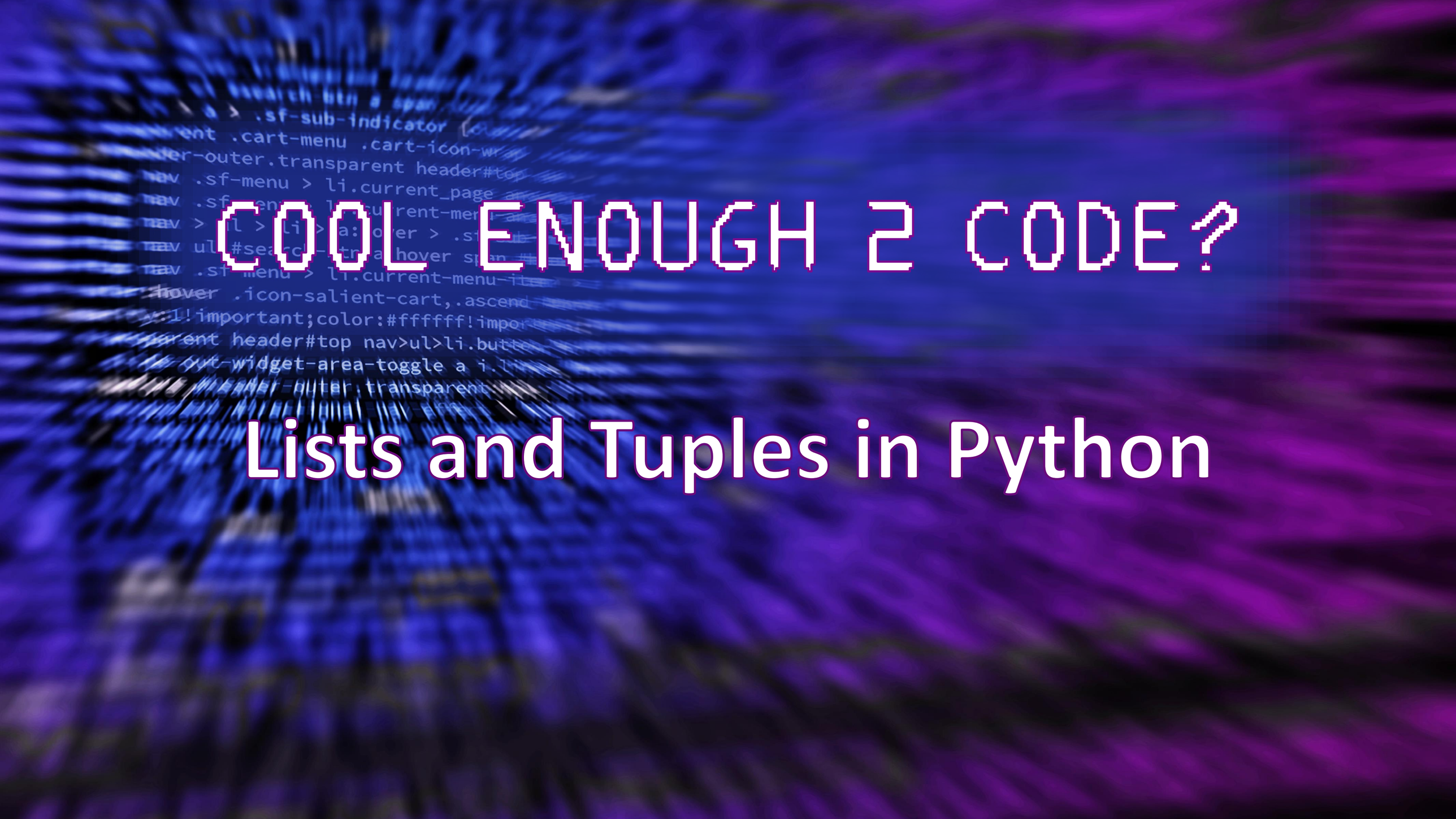
COOL ENOUGH 2 CODE?
Lists and Tuples in Python

Dictionaries in Python

- A **dictionary** uses **key/value** pairs to store information.
- A key must be unique. **{}** denote the dictionary.

```
dict1 = {
    "Mule": "A hybrid horse and donkey",
    "Zorse": " A hybrid zebra and horse",
    "Year": 2020
}
```

Keys

Values

Accessing and Assigning Values

Use **square brackets []** to get and assign values

```
dict1 = {
   “Mule": “A hybrid horse and donkey",
   “Zorse": " A hybrid zebra and horse",
   “Year": 2020
}
print (dict1[“Year”]) # output is 2020
dict1[“Year”] = 2021
print (dict1[“Year”]) # output is 2021
```

Adding Values

Adding can be done like reassigning a value.

```
dict1 = {
   “Mule": “A hybrid horse and donkey",
   “Zorse": " A hybrid zebra and horse",
   “Year1": 2020
}
print (dict1[“Year1”]) # output is 2020
dict1[“Year2”] = 2021 #Adds Year2
print (dict1[“Year2”]) # output is 2021
```

Remove Values

Use the **del** function to remove values.

```
dict1 = {
   “Mule": “A hybrid horse and donkey",
   “Zorse": " A hybrid zebra and horse",
   “Year1": 2020
}
del dict1[“Year1”]
print (dict1[“Year1”]) # ERROR!
```

For Loops with Dictionaries

For loops with dictionaries will loop over the keys in the dictionary.

```
dict1 = {
  “Mule": “A hybrid horse and donkey",
  “Zorse": " A hybrid zebra and horse",
  “Year": 2020
}
for key in dict1 :
  print(key)
  print (dict1[key])
```

Check If Key Exists

Use the **in** keyword to test for a key in the dictionary.

```
dict1 = {
   “Mule": “A hybrid horse and donkey",
   “Zorse": " A hybrid zebra and horse",
   “Year1": 2020
}
if “Zorse” in dict1:
    print(“OK!”)
```

Get a List of Keys or Values

Use the **keys()** and **values()** methods to test for a key in the dictionary.

```
dict1 = {
   “Mule": “A hybrid horse and donkey",
   “Zorse": " A hybrid zebra and horse",
   “Year1": 2020
}
print (list(dict1.keys())) # [“Mule”, “Zorse”,
“Year1”]
print (list(dict1.values())) # [“A hybrid horse and
donkey”,…]
```

Challenge

Create a Vocab Quiz!

- Generate a dictionary of words and definitions
- Select and display a definition and the words to choose from.
- Get input from the user to enter the word that matches the definition.