# # Assignment 4

# ## Chapter 5

# ### 5-1 / 5-2

# In[2]:

car = 'subaru'

print("Is car == 'subaru'? I predict True")

print(car == 'subaru')

print("\nIs car == 'audi'? I predict False")

print(car == 'audi')

# In[8]:

fruit = 'Pineapple'

print("Is fruit == 'pineapple'? I predict True")

print(fruit.lower() == 'pineapple')

print("\nfruit == 'Pineapple'? I predict False")

print(fruit.lower() == 'Pineapple')

# In[13]:

age = 20

print("Is age < 21? I predict True")

print(age < 21)

print("\nage > 21? I predict False")

print(age > 21)

print("\nIs age = 20? I predict True")

print(age == 20)

print("\nage != 20? I predict False")

print(age != 20)

print("\nIs age <= 20? I predict True")

print(age <= 20)

print("\nage >= 21? I predict False")

print(age >= 21)

# In[20]:

size = 'grande'

drink = 'coffee'

print("\nsize = grande and drink = coffee? I predict True")

print(size == 'grande' and drink == 'coffee')

print("\nsize = grande and drink = hot cocoa? I predict False")

print(size == 'grande' and drink == 'hot cocoa')

print("\nsize = grande or drink = hot cocoa? I predict True")

print(size == 'grande' or drink == 'hot cocoa')

print("\nsize = venti or drink = hot cocoa? I predict False")

print(size == 'venti' or drink == 'hot cocoa')

# In[22]:

fruit = ["pineapple","strawberry", "orange"]

print("\nIs pineapple in fruit? I predict True")

print('pineapple' in fruit)

print("\nIs cucumber in fruit? I predict False")

print('cucumber' in fruit)

print("\nIs cucumber not in fruit? I predict True")

print('cucumber' not in fruit)

print("\nIs pineapple in fruit? I predict False")

print('pineapple' not in fruit)

# ### 5-3

# In[25]:

alien\_color = "green"

if alien\_color == "green":

print("You earned 5 points")

# ### 5-4

# In[28]:

alien\_color = "red"

if alien\_color == "green":

print("You earned 5 points for shooting the alien")

else:

print("You earned 10 points for shooting the alien")

# ### 5-5

# In[32]:

alien\_color = "yellow"

if alien\_color == "green":

print("You earned 5 points for shooting the alien")

elif alien\_color == "yellow":

print("You earned 10 points for shooting the alien")

else:

print("You earned 15 points for shooting the alien")

# ### 5-6

# In[34]:

age = 5

if age < 2:

print("You are a baby!")

elif age >= 2 and age < 4:

print("You are a toddler!")

elif age >= 4 and age < 13:

print("You are a kid!")

elif age >= 13 and age < 20:

print("You are a teenager!")

elif age >= 20 and age < 65:

print("You are a adult!")

elif age >= 65:

print("You are an elder!")

# ### 5-7

# In[36]:

favorite\_fruit = ["pineapple","strawberry", "orange"]

if 'pineapple' in favorite\_fruit:

print("You really like pineapple")

if 'strawberry' in favorite\_fruit:

print("You really like strawberry")

if 'apple' in favorite\_fruit:

print("You really like apple")

if 'banana' in favorite\_fruit:

print("You really like banana")

if 'orange' in favorite\_fruit:

print("You really like orange")

# ### 5-8 / 5-9

# In[45]:

usernames = ["admin", "Eric", "Danny", "Roberta", "Robot1"]

if usernames:

for username in usernames:

if username =='admin':

print("Hello admin, would you like to see a status report?")

else:

print("Hello " + username + ", thank you for logging in again.")

else:

print("We need to find you some users!")

# ### 5-10

# In[44]:

current\_usernames = ["admin", "Eric", "Danny", "Roberta", "Robot1"]

new\_usernames = ["newguy", "Eric", "Danny", "Jennifer", "Robot2"]

current\_usernames\_lowercase = [user.lower() for user in current\_usernames]

for new\_username in new\_usernames:

if new\_username.lower() in current\_usernames\_lowercase:

print(new\_username + " is taken. You need to enter in a new username")

else:

print(new\_username + " is available")

# ### 5-11

# In[48]:

numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9]

for number in numbers:

if number == 1:

print("1st")

elif number == 2:

print("\n2nd")

elif number == 3:

print("\n3rd")

else:

print("\n" + str(number) + "th")

# ### 5-13

#

# I am interested in how you can use programming to gather data in the form of quizzes and surveys and then using the data to make predictions on future behavior.

# ## Chapter 6

#

# ### 6 -1

# In[52]:

person = {

'first\_name': "Dennis",

'last\_name': "Ruggerio",

'age': "24",

'city': "Seattle, WA"

}

print(person)

# ### 6-2

# In[54]:

favorite\_numbers = {

"person1" : "1",

"person2" : "2",

"person3" : "3",

"person4" : "4",

"person5" : "5"

}

print(favorite\_numbers)

# ### 6-3/ 6-4

# In[57]:

glossary = {

"list" : "a collection of items in a particular order",

"dictionary" : "a collection of key value pairs",

"if statement" : "an expression that can be evaluated as True or False",

"tuple" : "immutable list",

"string" : "series of strings",

"comment" : "A note in a program that the Python interpreter ignores",

"loop": "Work through a collection of items, one at a time",

"key": "The first item in a key-value pair in a dictionary",

"value": "An item associated with a key in a dictionary",

"conditional test": "A comparison between two values",

}

for key, value in glossary.items():

print(key + ": " + value)

# ### 6-5

# In[65]:

rivers = {

"nile" : "egypt",

"amazon" : "brazil",

"yangtze" : "china"

}

for key, value in rivers.items():

print("The " + key.title() + "runs through " + value.title() + ".")

for key in rivers.keys():

print(key.title())

for value in rivers.values():

print(value.title())

# ### 6-6

# In[68]:

favorite\_languages = {

'jen': 'python',

'sarah' : 'c',

'edward' : 'ruby',

'phil' : 'python'

}

already\_polled = favorite\_languages.keys()

potential\_pollers = ["jen", 'steve', "edward", "jacob"]

for poller in potential\_pollers:

if poller in already\_polled:

print("Thank you for responding to the poll.")

else:

print("Would you like to take our poll?")

# ### 6-7

# In[71]:

person\_1 = {

'first\_name': "Dennis",

'last\_name': "Ruggerio",

'age': "24",

'city': "Seattle, WA"

}

person\_2 = {

'first\_name': "Timothy",

'last\_name': "Spade",

'age': "22",

'city': "Seattle, WA"

}

person\_3 = {

'first\_name': "Mark",

'last\_name': "Dorchester",

'age': "23",

'city': "Seattle, WA"

}

person\_list = [person\_1, person\_2, person\_3]

for person in person\_list:

print(person)

# ### 6-8

# In[74]:

Shadow = {

'breed' : 'German Shepard',

'owner' : 'Dennis'

}

Taquito = {

'breed' : 'Corgi',

'owner' : 'Jim'

}

Rudy = {

'breed' : 'Cavichon',

'owner' : 'Owen'

}

pets = [Shadow, Taquito, Rudy]

for pet in pets:

print(pet)

# ### 6-9

# In[81]:

favorite\_places = {

'Dennis' : ["Italy", "London", "Canada"],

'Timothy' : ["DisneyLand", "DisneyWorld"],

'Mark' : ["My couch"]

}

for key, value in favorite\_places.items():

print (key + ": ")

print(value)

# ### 6-10

# In[82]:

favorite\_numbers = {

"person1" : ["1", "11"],

"person2" : ["2", "12"],

"person3" : ["3", "13"],

"person4" : ["4", "14"],

"person5" : ["5", "15"]

}

for key, value in favorite\_numbers.items():

print (key + ": ")

print(value)

# In[86]:

cities = {

"Seattle" : {

'Country' : 'USA',

'Population' : '724,717',

'Fact' : 'We make the best coffee.'

},

"New York" : {

'Country' : 'USA',

'Population' : '8,600,000',

'Fact' : 'They have nice bagels.'

},

"London" : {

'Country' : 'UK',

'Population' : '8,100,000',

'Fact' : 'They have funny accents'

}

}

for key, value in cities.items():

print (key + ": ")

print(value)

# ### 6-12

# In[90]:

person\_1 = {

'first\_name': "Dennis",

'last\_name': "Ruggerio",

'age': "24",

'city': "Seattle, WA"

}

person\_2 = {

'first\_name': "Timothy",

'last\_name': "Spade",

'age': "22",

'city': "Seattle, WA"

}

person\_3 = {

'first\_name': "Mark",

'last\_name': "Dorchester",

'age': "23",

'city': "Seattle, WA"

}

person\_list = [person\_1, person\_2, person\_3]

for person in person\_list:

for key, value in person.items():

print(key + ": " + value)

print("\n")

Part B





