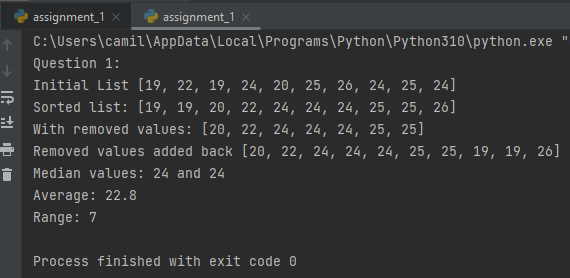
700701341 – Camille Young

GitHub Link: https://github.com/cmy13410/assignments

Question 1:

* Sort the list and find the min and max age
  + Sorted list: [19, 19, 20, 22, 24, 24, 24, 25, 25, 26]
* Add the min age and the max age again to the list
  + List with removed values: [20, 22, 24, 24, 24, 25, 25]
  + List with values added back: [20, 22, 24, 24, 24, 25, 25, 19, 19, 26]
* Find the median age (one middle item or two middle items divided by two)
  + Median values: 24 and 24
* Find the average age (sum of all items divided by their number)
  + Average: 22.8
* Find the range of the ages (max minus min)
  + Range: 7

Output from code:



* Output shows list, it median, average, and range.

Question 2:

* Create an empty dictionary called dog
  + Initial dog dictionary: {}
* Add name, color, breed, legs, age to the dog dictionary
  + Added values: {'Name': 'Kopi', 'Color': 'Beige', 'Breed': 'Husky', 'Legs': 4}
* Create a student dictionary and add first\_name, last\_name, gender, age, marital status, skills, country, city and address as keys for the dictionary
  + Student dictionary: {'first\_name': 'Steven', 'last\_name': 'Roy', 'gender': 'Male', 'age': 22, 'marital\_status': 'Single', 'skills': ['Has great communication'], 'country': 'USA', 'city': 'NY', 'address': '4509 East Street'}
* Get the length of the student dictionary
  + The length of student dictionary is 9
* Get the value of skills and check the data type, it should be a list
  + Value of skills: ['Has great communication']
  + Data type of skills: <class 'list'>
* Modify the skills values by adding one or two skills
  + Updated Skills: ['Has great communication', 'and great leadership skills']
* Get the dictionary keys as a list
  + Keys: dict\_keys(['first\_name', 'last\_name', 'gender', 'age', 'marital\_status', 'skills', 'country', 'city', 'address'])
* Get the dictionary values as a list
  + Values: dict\_values(['Steven', 'Roy', 'Male', 22, 'Single', ['Has great communication', 'and great leadership skills'], 'USA', 'NY', '4509 East Street'])

Output:

A picture containing text

Description automatically generated

* Output shows dictionaries values, element type, and lengths

Question 3:

Create a tuple containing names of your sisters and your brother

* Join brothers and sisters tuples and assign it to siblings
  + Brothers: ('Jason', 'Jacob')
  + Sisters: ('Lucy', 'Candace')
  + ('Jason', 'Jacob', 'Lucy', 'Candace')
* How many siblings do you have?
  + Amount of siblings: 4
* Modify the siblings tuple and add the name of your father and mother and assign it family\_members
  + Family ('Richard', 'Mary', 'Jason', 'Jacob', 'Lucy', 'Candace')

Output:

Text

Description automatically generated

* Output shows each set and its values

Question 4:

* Find the length of the set it\_companies
  + Length of it\_companies: 7
* Add 'Twitter' to it\_companies
  + Updated it\_companies: {'Apple', 'Microsoft', 'Oracle', 'IBM', 'Google', 'Facebook', 'Twitter', 'Amazon'}
* Insert multiple IT companies at once to the set it\_companies
  + Updated it\_companies: {'Google', 'Tumblr', 'Oracle', 'IBM', 'Amazon', 'Apple', 'Microsoft', 'Facebook', 'Twitter', 'Instagram', 'YouTube'}
* Remove one of the companies from the set it\_companies
  + Removed a company: {'Microsoft', 'Amazon', 'Google', 'Oracle', 'Instagram', 'Facebook', 'YouTube', 'IBM', 'Apple', 'Tumblr'}
* What is the difference between remove and discard
  + Remove raises a key error if, discard does not raise an exception.
* Join A and B
  + Joined sets: {19, 20, 22, 24, 25, 26, 27, 28}
* Find A intersection B
  + Intersect A and B {19, 20, 22, 24, 25, 26}
* Is A subset of B?
  + Yes, it’s a subset of B it contains all the values.
* Are A and B disjoint sets?
  + No, they have some of the same elements
* Join A with B and B with A
  + Join A to B: {19, 20, 22, 24, 25, 26, 27, 28}
  + Join B to A: {19, 20, 22, 24, 25, 26, 27, 28}
* What is the symmetric difference between A and B
  + Symmetric Difference: {27, 28}
* Convert the ages to a set and compare the length of the list and the set.
  + Age set length: 5
  + Age list length: 8

Output:

Text

Description automatically generated

* Output shows answer to all questions

Question 5:

Output:

Text

Description automatically generated

* Output shows area and circumference of a circle with a 30 cm radius, and allows for user entered radius, and it will find the area

Question 6:

* How many unique words have been used in the sentence? Use the split methods and set to get the unique words.
  + Unique words: {'a', 'love', 'inspire', 'to', 'teacher', 'I', 'and', 'people', 'teach', 'am'}

Output:

Text

Description automatically generated

* Output: shows set of all unique words

Question 7:

Use a tab escape sequence to get the following lines. Output:

Text

Description automatically generated

* Output shows strings using tab escape sequence

Question 8:

Use the string formatting method to display the following:

radius = 10

area = 3.14 \* radius \*\* 2Output:  
Text

Description automatically generated

* Output shows formatted string with integers from calculations

Question 9:

Write a program, which reads weights (lbs.) of N students into a list and convert these weights to

kilograms in a separate list using Loop. N: No of students (Read input from user)

Output:

Text

Description automatically generated

* Output shows the converted values, and user input