**ADITYA AMIN ASSIGN : 16**

1. Create a list called years\_list, starting with the year of your birth, and each year thereafter until the year of your fifth birthday. For example, if you were born in 1980. the list would be years\_list = [1980, 1981, 1982, 1983, 1984, 1985].

Based on the current date of April 12th, 2023, I will assume that my birth year is 1990. Using this information, here's the list called years\_list:

years\_list = [1990, 1991, 1992, 1993, 1994, 1995]

1. In which year in years\_list was your third birthday? Remember, you were 0 years of age for your first year.

As per the information provided, my birth year is 1990. Therefore, my third birthday would have occurred three years after my birth.

Using the years\_list provided earlier, we can see that my third birthday would have been in the year 1993, as it is the third element in the list.

1. In the years list, which year were you the oldest?

In the years\_list provided earlier, which includes the years from my birth year (1990) until the year of my fifth birthday (1995), I would be the oldest in the last year of the list, which is 1995.

1. Make a list called things with these three strings as elements: "mozzarella", "cinderella", "salmonella".

Here's the list called "things" with the three strings as elements:

things = ["mozzarella", "cinderella", "salmonella"]

1. Capitalize the element in things that refers to a person and then print the list. Did it change the element in the list?

Yes, the element in the list "things" that refers to a person is "cinderella". To capitalize it, you can use the capitalize() method in Python. Here's an example:

name = ["mozzarella", "cinderella", "salmonella"]

# Capitalize the element that refers to a person

things[1] = name[1].capitalize()

# Print the updated list

print(name)

1. Make a surprise list with the elements "Groucho," "Chico," and "Harpo."

# Surprise list with elements

surprise\_list = ["Groucho", "Chico", "Harpo"]

# Printing the surprise list

print("Surprise List:")

for element in surprise\_list:

print(element)

1. Lowercase the last element of the surprise list, reverse it, and then capitalize it.

# Surprise list with elements

surprise\_list = ["Groucho", "Chico", "Harpo"]

# Lowercase the last element

last\_element = surprise\_list[-1]

last\_element\_lower = last\_element.lower()

# Reverse the last element

last\_element\_reversed = last\_element\_lower[::-1]

# Capitalize the reversed last element

last\_element\_capitalized = last\_element\_reversed.capitalize()

# Update the surprise list with the modified element

surprise\_list[-1] = last\_element\_capitalized

# Printing the modified surprise list

print("Modified Surprise List:")

for element in surprise\_list:

print(element)

1. Make an English-to-French dictionary called e2f and print it. Here are your starter words: dog is chien, cat is chat, and walrus is morse.

# Create English-to-French dictionary

e2f = {

"dog": "chien",

"cat": "chat",

"walrus": "morse"

}

# Print the English-to-French dictionary

print("English-to-French Dictionary:")

for english\_word, french\_word in e2f.items():

print(f"{english\_word} is {french\_word}")

1. Write the French word for walrus in your three-word dictionary e2f.

e2f = {'walrus': 'morse'}

# Accessing the French translation for "walrus"

french\_word = e2f.get('walrus')

# Printing the French translation

print(french\_word)

1. Make a French-to-English dictionary called f2e from e2f. Use the items method.

# Existing English-to-French dictionary

e2f = {'walrus': 'morse', 'cat': 'chat', 'dog': 'chien', 'bird': 'oiseau'}

# Creating a French-to-English dictionary using items() method

f2e = {value: key for key, value in e2f.items()}

# Accessing the French-to-English translation for "morse"

english\_word = f2e.get('morse')

# Printing the English translation

print(english\_word)

1. Print the English version of the French word chien using f2e.

# Existing French-to-English dictionary

f2e = {'morse': 'walrus', 'chat': 'cat', 'chien': 'dog', 'oiseau': 'bird'}

# Accessing the English translation for "chien"

english\_word = f2e.get('chien')

# Printing the English translation

print(english\_word)

1. Make and print a set of English words from the keys in e2f.

# Existing English-to-French dictionary

e2f = {'walrus': 'morse', 'cat': 'chat', 'dog': 'chien', 'bird': 'oiseau'}

# Creating a set of English words from the keys in e2f

english\_words = set(e2f.keys())

# Printing the set of English words

print(english\_words)

1. Make a multilevel dictionary called life. Use these strings for the topmost keys: 'animals', 'plants', and 'other'. Make the 'animals' key refer to another dictionary with the keys 'cats', 'octopi', and 'emus'. Make the 'cats' key refer to a list of strings with the values 'Henri', 'Grumpy', and 'Lucy'. Make all the other keys refer to empty dictionaries.

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

1. Print the top-level keys of life.

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

# Printing the top-level keys of 'life' dictionary

top\_level\_keys = life.keys()

print("Top-level keys of 'life' dictionary: ", top\_level\_keys)

1. Print the keys for life['animals'].

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

# Printing the keys for 'animals' sub-dictionary

animals\_keys = life['animals'].keys()

print("Keys for 'animals' sub-dictionary: ", animals\_keys)

1. Print the values for life['animals']['cats']

life = {

'animals': {

'cats': ['Henri', 'Grumpy', 'Lucy'],

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

# Printing the values for 'cats' key

cats\_values = life['animals']['cats']

print("Values for 'cats' key: ", cats\_values)