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].

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

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

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

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

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

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

8. 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.

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

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

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

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

13. 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.

14. Print the top-level keys of life.

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

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

ANSWERS

1. **Create a List of Years**:
   * We’ll create a list called years\_list starting from the year of birth until the fifth birthday (inclusive).

**Python**

birth\_year = 1980

years\_list = [birth\_year + i for i in range(6)]

print(years\_list)

1. **Third Birthday Year**:
   * Your third birthday year is the year when you turn 3 (since you were 0 years old in your first year).

**Python**

third\_birthday\_year = birth\_year + 3

print(f"Third birthday year: {third\_birthday\_year}")

1. **Oldest Year**:
   * The oldest year in the list is the last year (fifth birthday year).

**Python**

oldest\_year = years\_list[-1]

print(f"Oldest year: {oldest\_year}")

1. **Create a List of Things**:
   * We’ll create a list called things with the given strings.

**Python**

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

1. **Capitalize the Person Element**:
   * We’ll capitalize the element that refers to a person (i.e., “cinderella”).

**Python**

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

print(things)

1. **Create a Surprise List**:
   * We’ll create a list called surprise with the given elements.

**Python**

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

1. **Modify the Last Element of Surprise List**:
   * We’ll lowercase, reverse, and capitalize the last element.

**Python**

last\_element = surprise[-1].lower()[::-1].capitalize()

surprise[-1] = last\_element

print(surprise)

1. **Create an English-to-French Dictionary (e2f)**:
   * We’ll create a dictionary with the given starter words.

**Python**

e2f = {

"dog": "chien",

"cat": "chat",

"walrus": "morse"

}

print(e2f)

1. **French Word for Walrus**:
   * We’ll retrieve the French word for “walrus” from the dictionary.

**Python**

french\_walrus = e2f["walrus"]

print(f"French word for walrus: {french\_walrus}")

1. **Create a French-to-English Dictionary (f2e)**:
   * We’ll create a dictionary by swapping keys and values from e2f.

**Python**

f2e = {v: k for k, v in e2f.items()}

1. **Print English Version of “chien”**:
   * We’ll print the English version of the French word “chien.”

**Python**

english\_chien = f2e["chien"]

print(f"English version of 'chien': {english\_chien}")

1. **Set of English Words from Keys in e2f**:
   * We’ll create a set of English words from the keys in e2f.

**Python**

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

print(f"English words set: {english\_words\_set}")

1. **Create a Multilevel Dictionary (life)**:
   * We’ll create a nested dictionary called life as described.

**Python**

life = {

"animals": {

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

"octopi": {},

"emus": {}

},

"plants": {},

"other": {}

}

1. **Print Top-Level Keys of life**:
   * We’ll print the top-level keys of the life dictionary.

**Python**

top\_level\_keys = list(life.keys())

print(f"Top-level keys of life: {top\_level\_keys}")

1. **Print Keys for life[‘animals’]**:
   * We’ll print the keys under the “animals” key in the life dictionary.

**Python**

animal\_keys = list(life["animals"].keys())

print(f"Keys for 'animals': {animal\_keys}")

1. **Print Values for life[‘animals’][‘cats’]**:
   * We’ll print the values (cat names) under the “cats” key in the life dictionary.

**Python**

cat\_names = life["animals"]["cats"]

print(f"Cat names: {cat\_names}")