**ANSWERS**

**Q1. 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].**

**Ans.** To create a list called years\_list starting with the year of your birth and each year thereafter until the year of your fifth birthday, you can use the range function and list comprehension as follows:

years\_list = [year for year in range(1995, 2000)]

This assumes your birth year is 1995. Adjust the range function accordingly if your birth year is different.

**Q2. In which year in years\_list was your third birthday? Remember, you were 0 years of age for your first year.**

**Ans.** To find out in which year in years\_list was your third birthday, you can simply add 3 to your birth year and check if that year is in the years\_list:

third\_birthday\_year = 1995 + 3

if third\_birthday\_year in years\_list:

print(third\_birthday\_year)

This will print the year 1998 if your birth year is 1995.

**Q3.In the years list, which year were you the oldest?**

**Ans.** To find out in the years\_list which year you were the oldest, you can simply get the last element of the list using the index -1:

oldest\_year = years\_list[-1]

print(oldest\_year)

This will print the year 1999 if your birth year is 1995 and you're assuming the years\_list has been created as shown in the answer to Q1.

**Q4. Make a list called things with these three strings as elements: "mozzarella", "cinderella", "salmonella".**

**Ans**. To make a list called things with these three strings as elements: "mozzarella", "cinderella", "salmonella", you can simply write:

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

**Q5. Capitalize the element in things that refers to a person and then print the list. Did it change the element in the list?**

**Ans.** To capitalize the element in things that refers to a person and then print the list, you can use the index method to find the index of that element, then use the capitalize method to capitalize it:

index = things.index("cinderella")

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

print(things)

This will print ["mozzarella", "Cinderella", "salmonella"]. Note that the original list is modified.

**Q6. Make a surprise list with the elements "Groucho," "Chico," and "Harpo."**

**Ans**. To make a surprise list with the elements "Groucho," "Chico," and "Harpo", you can simply write:

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

**Q7. Lowercase the last element of the surprise list, reverse it, and then capitalize it.**

**Ans.** To lowercase the last element of the surprise list, reverse it, and then capitalize it, you can use string methods and list slicing as follows:

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

reversed\_element = last\_element[::-1]

capitalized\_element = reversed\_element.capitalize()

surprise[-1] = capitalized\_element

print(surprise)

This will print ["Groucho", "Chico", "Oprah"] assuming the original surprise list was as shown in the answer to Q6.

**Q8. 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.**

Ans. To make an English-to-French dictionary called e2f and print it, you can use the dictionary literal syntax as follows:

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

print(e2f)

This will print {'dog': 'chien', 'cat': 'chat', 'walrus': 'morse'}.

**Q9. Write the French word for walrus in your three-word dictionary e2f.**

**Ans**. To write the French word for walrus in your three-word dictionary e2f, you can simply access the value associated with the key "walrus":

print(e2f['walrus'])

This will print "morse".

**Q10. Make a French-to-English dictionary called f2e from e2f. Use the items method.**

**Ans.** To make a French-to-English dictionary called f2e from e2f using the items method, you can use a dictionary comprehension as follows:

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

print(f2e)

**Q11. Print the English version of the French word chien using f2e.**

**Ans.** To print the English version of the French word "chien" using the f2e dictionary, you can use the following code:

french\_to\_english = {

'chien': 'dog',

'chat': 'cat',

'morse': 'walrus'

}

english\_word\_for\_chien = french\_to\_english['chien']

print(english\_word\_for\_chien)

**Q12. Make and print a set of English words from the keys in e2f.**

**Ans.** To create a set of English words from the keys in the e2f dictionary and print it, you can use the following code:

e2f = {

'dog': 'chien',

'cat': 'chat',

'walrus': 'morse'

}

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

print(english\_words\_set)

**Q13. 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.**

**Ans.** Here is the multilevel dictionary called life:

life = {

'animals': {

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

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

**Q14. Print the top-level keys of life.**

**Ans.** To print the top-level keys of the life dictionary, you can use the keys() method:

life = {

'animals': {

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

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

top\_level\_keys = life.keys()

print(top\_level\_keys)

**Q15. Print the keys for life['animals'].**

**Ans.** To print the keys for the 'animals' key in the life dictionary, you can access it using life['animals'] and then use the keys() method:

life = {

'animals': {

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

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

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

print(animal\_keys)

**Q16. Print the values for life['animals']['cats'].**

**Ans.** To print the values for the 'cats' key in the 'animals' key of the life dictionary, you can access it using life['animals']['cats']:

life = {

'animals': {

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

'octopi': {},

'emus': {}

},

'plants': {},

'other': {}

}

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

print(cat\_values)