# Assignment-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].**

**Ans.** years_list: [1999, 2000, 2001, 2002, 2003, 2004]

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

**Ans.** The year of the third birthday: 2002

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

**Ans.** The year in which I was the oldest: 2004

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

**Ans.** List things after capitalizing "cinderella": ['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?**

**Ans.** The list did change after capitalization.

**6. Make a surprise list with the elements “Groucho”, “Chico” and “Harpo.”**

**Ans.** Surprise list after transformation: ['Groucho', 'Chico', 'Harpo'].

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

**Ans.** Surprise list after transformation: ['Groucho', 'Chico', 'Oprah'].

**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.**

**Ans.** e2f = {

"dog": "chien",

```
    "cat": "chat",
    "walrus": "morse"
}

print(e2f)
```

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

**Ans.** The French word for "walrus": morse

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

**Ans.**

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

# Using the items() method to create a French-to-English dictionary
f2e = {french: english for english, french in e2f.items()}

print(f2e)
```

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

**Ans.** English word for "chien": dog

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

**Ans.** e2f = {

```
    "dog": "chien",
    "cat": "chat",
```

```
    "walrus": "morse"
}
# Creating a set of English words from the keys in e2f
english_words_set = set(e2f.keys())
print(english_words_set)
```

**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.**

**Ans.** You can create the multilevel dictionary `life` and print the top-level keys as follows:

```
# Creating the multilevel dictionary called life
life = {
    'animals': {
        'cats': ['Henri', 'Grumpy', 'Lucy'],
        'octopi': {},
        'emus': {}
    },
    'plants': {},
    'other': {}
}

# Printing the top-level keys of life
print(life.keys())
```

This code defines the structure and prints the top-level keys ('animals', 'plants', and 'other').

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

**Ans.** To print the top-level keys of the `life` dictionary, you can use the following code:

```
# Printing the top-level keys of life
```

print(life.keys())

This will display the keys ['animals', 'plants', 'other'] in the dictionary.

**15. Print the keys for life[‘animals’].**

**Ans.** To print the keys for life['animals'], you can use the following code:

```
# Printing the keys for life['animals']

print(life['animals'].keys())
```

This will display the keys ['cats', 'octopi', 'emus'] under the 'animals' category in the `life` dictionary.

**16. Print the values for life[‘animals’][‘cats’].**

**Ans.** To print the values for `life['animals']['cats']`, you can use the following code:

```
# Printing the values for life['animals']['cats']

print(life['animals']['cats'])
```

This will output the list of cat names:

['Henri', 'Grumpy', 'Lucy']