

Python Basic- 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]`.

Answer:

```
years_list = []
birth_year = int(input("Enter your birth year: "))
for year in range(birth_year, birth_year + 6):
    years_list.append(year)
print(years_list)
```

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

Answer:

```
print(f"My third birthday is {years_list[3]}") #year_list taken from the 1st question.
```

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

Answer:

```
print(f"My oldest year from the year list is {years_list[-1]}") #year_list taken from the 1st question.
```

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

Answer:

```
list = ["mozzarella", "cinderella", "salmonella"]
things = []
for i in list:
    things.append(i)
print(things)
```

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

Answer:

```
list = ["mozzarella", "cinderella", "salmonella"]
things = []
for i in list:
    things.append(i)
name = input("Enter name from the list: ")

if name not in things:
    print("Name not in list")

elif name in things:
    for i in range(len(things)):
        if things[i] == name:
            things[i] = things[i].capitalize()
    print(things)
```

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

Answer:

```
suprise_list = ['Groucho','Chico','Harpo']
print(suprise_list)
```

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

Answer:

```
suprise_list = ['Groucho','Chico','Harpo']
print(suprise_list[-1].lower()[::-1].capitalize())
```

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.

Answer:

```
e2f = {'dog':'chien','cat':'chat','walrus':'morse'}
print(e2f)
```

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

Answer:

```
e2f = {'dog':'chien','cat':'chat','walrus':'morse'}  
print(e2f.get('walrus'))
```

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

Answer:

```
e2f = {'dog':'chien','cat':'chat','walrus':'morse'}  
f2e = {}  
for key,value in e2f.items():  
    f2e[value] = key  
print(f2e)
```

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

Answer:

```
print(f2e.get('chien'))
```

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

Answer:

```
e2f = {'dog':'chien','cat':'chat','walrus':'morse'}  
list = []  
for key,value in e2f.items():  
    list.append(key)  
print(list)
```

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.

Answer:

```
life = {  
    'animals': {  
        'cats': ['Henri', 'Grumpy', 'Lucy'],  
        'octopi': {},  
        'emus': {}  
    },  
    'plants': {},  
    'other': {}  
}  
print(life)
```

14. Print the top-level keys of life.

Answer:

```
for key,value in life.items():  
    print(key)
```

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

Answer:

```
life = {'animals': {'cats': ['Henri', 'Grumpy', 'Lucy'], 'octopi': {}, 'emus': {}}, 'plants': {},  
'other': {}}  
print(life['animals'].keys())
```

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

Answer:

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