

Title : Python Basic Assignment-16

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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]`.

```
year_of_birth = 2000

years_list = [i for i in range(year_of_birth+1,year_of_birth+6)]

print(years_list)

>>>[2001,2002,2003,2004,2005]
```

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

```
years_list[2]

>>>2003
```

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

```
print(max(years_list))

>>>2005
```

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

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

print(things)

>>>['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?

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

```
>>>['mozzarella', 'Cinderella', 'salmonella']
```

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

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

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

```
surprise[-1] = surprise[-1].lower()[::-1].capitalize()
```

```
surprise
```

```
>>> ['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.

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

```
print(e2f)
```

```
>>> {'dog': 'chien', 'cat': 'chat', 'walrus': 'morse'}
```

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

```
e2f['walrus']
```

```
>>> morse
```

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

```
f2e = dict([(value, key) for key, value in e2f.items()])
```

```
f2e
>>> {'chat': 'cat', 'chien': 'dog', 'morse': 'walrus'}
```

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

```
f2e['chien']
>>> 'dog'
```

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

```
eng_words = set()
for i in f2e.keys():
    eng_words.add(f2e[i])
eng_words
>>> {'cat', 'dog', 'walrus'}
```

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.

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

14. Print the top-level keys of life.

```
print(life.keys())  
  
>>> dict_keys(['animals', 'plants', 'other'])
```

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

```
print(life['animals'].keys())  
  
>>> dict_keys(['cats', 'octopi', 'emus'])
```

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

```
print(life['animals']['cats'])  
  
>>> ['Henri', 'Grumpy', 'Lucy']
```