

- 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]`.

```
In [1]: 1 years_list = [i for i in range(1999,1999+6)]
        2 years_list
```

```
Out[1]: [1999, 2000, 2001, 2002, 2003, 2004]
```

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

```
In [2]: 1 years_list[3]
```

```
Out[2]: 2002
```

- In the years list, which year were you the oldest?

```
In [3]: 1 max(years_list)
```

```
Out[3]: 2004
```

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

```
In [5]: 1 things = list(['mozzarella','cinderella','salmonella'])
        2 things
```

```
Out[5]: ['mozzarella', 'cinderella', 'salmonella']
```

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

```
In [6]: 1 for i in things:
        2     print(i.capitalize())
```

```
Mozzarella
Cinderella
Salmonella
```

- Make a surprise list with the elements `"Groucho"`, `"Chico"`, and `"Harpo"`

```
In [8]: 1 surprise_list = ["Groucho", "Chico", "Harpo"]
        2 surprise_list
```

```
Out[8]: ['Groucho', 'Chico', 'Harpo']
```

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

```
In [9]: 1 surprise_list[-1].lower()[::-1].upper()
```

```
Out[9]: 'OPRAH'
```

- 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.

```
In [10]: 1 e2f = {'dog':'chien','cat':'chat','walrus':'morse'}
```

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

```
In [11]: 1 e2f['walrus']
```

```
Out[11]: 'morse'
```

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

```
In [18]: 1 f2e = dict((key,value) for value, key in e2f.items())  
2 f2e
```

```
Out[18]: {'chien': 'dog', 'chat': 'cat', 'morse': 'walrus'}
```

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

```
In [19]: 1 f2e['chien']
```

```
Out[19]: 'dog'
```

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

```
In [23]: 1 e2f.keys()
```

```
Out[23]: dict_keys(['dog', 'cat', 'walrus'])
```

- 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.

```
In [21]: 1 life ={'animals':{'cat':['Henri', 'Grumpy', 'Lucy'], 'octopi':'', 'emus':''},  
2           'plants' :'',  
3           'other' :'' }  
4 life
```

```
Out[21]: {'animals': {'cat': ['Henri', 'Grumpy', 'Lucy'], 'octopi': '', 'emus': ''},  
          'plants': '',  
          'other': ''}
```

- Print the top-level keys of life.

```
In [22]: 1 life.keys()
```

```
Out[22]: dict_keys(['animals', 'plants', 'other'])
```

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

```
In [24]: 1 life['animals'].keys()
```

```
Out[24]: dict_keys(['cat', 'octopi', 'emus'])
```

- Print the values for life['animals']['cat']

```
In [25]: 1 life['animals']['cat']
```

```
Out[25]: ['Henri', 'Grumpy', 'Lucy']
```

```
In [ ]: 1
```