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In [1]: # Q1
birth_year = 1998
years_list = []

for year in range(birth_year, birth_year + 6):
    years_list.append(year)

print(years_list)
```

[1998, 1999, 2000, 2001, 2002, 2003]

```
In [3]: # Q2
birth_year = 1998
years_list = []

for year in range(birth_year, birth_year + 6):
    years_list.append(year)

year_of_third_birthday = birth_year + 2 + 1
print(year_of_third_birthday)
```

2001

```
In [4]: # Q3
birth_year = 1998
years_list = []

for year in range(birth_year, birth_year + 6):
    years_list.append(year)

oldest_year = birth_year
max_age = 0

for year in years_list:
    age = year - birth_year
    if age > max_age:
        max_age = age
        oldest_year = year

print("In the years list, you were the oldest in the year", oldest_year)
```

In the years list, you were the oldest in the year 2003

```
In [6]: # Q4
Things = ["mozzarella", "cinderella", "salmonella"]
print(Things)
```

['mozzarella', 'cinderella', 'salmonella']

```
In [7]: # Q5
things = ["mozzarella", "cinderella", "salmonella"]
things[1] = things[1].capitalize()

print(things)

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

```
In [8]: # Q6
surprise = ["Groucho", "Chico", "Harpo"]
print(surprise)

['Groucho', 'Chico', 'Harpo']
```

```
In [5]: # Q7
surprise = ["Groucho", "Chico", "Harpo"]
last_element=surprise[-1].lower()
reverse_element=last_element[::-1]
capitalize_element=reverse_element.capitalize()
capitalize_element
```

Out[5]: 'Oprah'

```
In [6]: # Q8
e2f = {"dog": "chien", "cat": "chat", "walrus": "morse"}
print(e2f)

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

```
In [7]: # Q9
e2f = {"dog": "chien", "cat": "chat", "walrus": "morse"}
print(e2f["walrus"])

morse
```

```
In [8]: # Q10
e2f = {"dog": "chien", "cat": "chat", "walrus": "morse"}
f2e = {value: key for key, value in e2f.items()}
print(f2e)

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

```
In [9]: # Q11
e2f = {"dog": "chien", "cat": "chat", "walrus": "morse"}
f2e = {value: key for key, value in e2f.items()}

print(f2e["chien"])

dog
```

```
In [13]: # Q12
e2f = {"dog": "chien", "cat": "chat", "walrus": "morse"}
print(set(e2f.keys()))

{'cat', 'walrus', 'dog'}
```

```
In [14]: # Q13
life = {
    'animals': {
        'cats': ['Henri', 'Grumpy', 'Lucy'],
        'octopi': {},
        'emus': {}
    },
    'plants': {},
    'other': {}
}
```

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In [15]: # Q14
print(life.keys())

dict_keys(['animals', 'plants', 'other'])
```

```
In [17]: # Q15
print(life["animals"].keys())

dict_keys(['cats', 'octopi', 'emus'])
```

```
In [22]: # Q16
#Print the values for life[animals][cats]
print(life["animals"],["cats"])

{'cats': ['Henri', 'Grumpy', 'Lucy'], 'octopi': {}, 'emus': {}} ['cats']
```

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In [ ]:
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