

# 1. Populating a dictionary

Create a dictionary by using all the given variables.

```
In [10]: first_name = 'John'
last_name = 'Doe'
favorite_hobby = 'Python'
sports_hobby = 'gym'
age = 82
```

```
In [11]: # Your implementation
my_dict = {'name': first_name + " " + last_name,
           "age": age,
           "hobbies": [favorite_hobby, sports_hobby]
          }
```

```
In [12]: assert my_dict == {
           'name': 'John Doe',
           'age': 82,
           'hobbies': ['Python', 'gym']
         }
```

# 2. Accessing and merging dictionaries

Combine dict1, dict2, and dict3 into my\_dict. In addition, get the value of special\_key from my\_dict into a special\_value variable. Note that original dictionaries should stay untouched and special\_key should be removed from my\_dict.

```
In [29]: dict1 = dict(key1='This is not that hard', key2='Python is still cool')
dict2 = {'key1': 123, 'special_key': 'secret'}
# This is also a away to initialize a dict (list of tuples)
dict3 = dict([('key2', 456), ('keyX', 'X')])
```

```
In [30]: # 'Your impelementation'
my_dict = dict1.copy()

my_dict.update(dict2)
my_dict.update(dict3)

special_value = my_dict['special_key']

my_dict.pop("special_key")
```

```
Out[30]: 'secret'
```

```
In [31]: assert my_dict == {'key1': 123, 'key2': 456, 'keyX': 'X'}
assert special_value == 'secret'

# Let's check that the originals are untouched
```

```
assert dict1 == {  
    'key1': 'This is not that hard',  
    'key2': 'Python is still cool'  
}  
assert dict2 == {'key1': 123, 'special_key': 'secret'}  
assert dict3 == {'key2': 456, 'keyX': 'X'}
```