

Python编程：从入门到实践8

定义函数

1. 函数greet_user()中，变量username是一个形参，而传递的值“Jesse”是一个实参。
2. 一个函数可以定义多个形参，也可以包含多个实参。但是每个实参都必须关联到函数定义中的一个形参
3. 可给每个形参指定默认值，在调用函数中给形参提供了实参时，Python将使用指定的实参，否则将使用形参的默认值。但是要注意位置的条件，要将没有指定默认值的形参放在有指定默认值的前面
4. 让必须传递的实参变成可选择传递与否的，只需要在形参的默认值中传入空字符串
5. 向函数传递列表
6. 传递任意数量的实参：在形参面前加入星号“*”
7. 传递任意数量的关键字实参：在形参加入两个星号“**”

```
def greet_user(username):
    print("Hello, " + username.title()+'!')
greet_user('jesse')

def describe_pet(animal_type, pet_name):
    print('I have a '+animal_type)
    print('My ' + animal_type + "'s name is " + pet_name)
describe_pet('hamster', 'harry')

def describe_pet(pet_name, animal_type='hamster'):
    print('I have a '+animal_type)
    print('My ' + animal_type + "'s name is " + pet_name)
describe_pet('harry')

def get_formatted_name(first_name, last_name, middle_name=''):
    if middle_name:
        full_name = first_name + ' ' + middle_name + ' ' + last_name
    else:
        full_name = first_name + ' ' + last_name
    return full_name.title()
musician = get_formatted_name('jimi', 'hendrix')
print(musician)
musician = get_formatted_name('john', 'hooker', 'lee')
print(musician)
```

```
def greet_users(names):
    for name in names:
        print("Hello, " + name.title() + '!')
usernames = ['hannah', 'ty', 'margot']
greet_users(usernames)

def make_pizza(*toppings):
    print("\nMaking a pizza with the following toppings")
    for topping in toppings:
        print('-' + topping)
make_pizza('mushrooms', 'green peppers', 'extra cheese')

def build_profile(first, last, **user_info):
    profile = {}
    profile['first_name'] = first
    profile['last_name'] = last
    for key, value in user_info.items():
        profile[key] = value
    return profile
user_profile = build_profile('yang', 'paul', location='princeton', field='physics')
print(user_profile)
```