

Review Python Language

Variable

```
my_name = "Toy"  
my_age = 33
```

```
print(my_name)  
print(my_age)
```

Toy
33

```
print(1 + 1)  
print(2 * 2)  
print(5 / 2)  
print(8 - 5)
```

2
4
2.5
3

String

```
# string & fstring in Python  
my_name = "Toy"  
my_university = 'Kasetsart'  
  
my_long_string = """This is a very long  
    This is a second line  
    This is a third line  
"""  
  
print(my_name, my_university, my_long_string)
```

Toy Kasetsart This is a very long
 This is a second line
 This is a third line

```
# fstring template
my_name = "Toy"
my_age = 33

text = f"my name is {my_name}, and I am {my_age} years old."
print(text)
```

my name is Toy, and I am 33 years old.

String Methods

```
# function designed for string (string methods)
text = "a duck walks into a bar"
```

```
"HELLO WORLD".lower()
```

'hello world'

```
text.count("duck")
```

1

```
text2 = text.replace('duck', 'lion')
print(text)
print(text2)
```

a duck walks into a bar
a lion walks into a bar

List

```
# list
shopping_list = ['egg', 'milk', 'bread']
print(shopping_list)
```

['egg', 'milk', 'bread']

```
print(shopping_list[0:2])
```

['egg', 'milk']

```
# list method = append
shopping_list.append('orange juice')
print(shopping_list)
```

```
['egg', 'milk', 'bread', 'orange juice']
```

```
shopping_list.append('water bottle')
print(shopping_list)
```

```
['egg', 'milk', 'bread', 'orange juice', 'water bottle']
```

```
# list method .pop()
shopping_list.pop()
```

```
'water bottle'
```

```
shopping_list
```

```
['egg', 'milk', 'bread', 'orange juice']
```

```
len(shopping_list)
```

```
4
```

Dictionary

```
# dictionary key-value pair

student = {
    "id": 1,
    "name": "Mary",
    "age": 22,
    "movies": ["Spider Man", "Thor", "Iron Man 3"]
}
```

```
student['movies'][0]
```

```
'Spider Man'
```

```
student['city'] = 'London'
student
```

```
{'id': 1,
  'name': 'Mary',
  'age': 22,
  'movies': ['Spider Man', 'Thor', 'Iron Man 3'],
  'city': 'London'}
```

```
# update value
student['city'] = 'Manchester'
student
```

```
{'id': 1,
  'name': 'Mary',
  'age': 22,
  'movies': ['Spider Man', 'Thor', 'Iron Man 3'],
  'city': 'Manchester'}
```

```
# remove key-value
del student['city']
student
```

```
{'id': 1,
  'name': 'Mary',
  'age': 22,
  'movies': ['Spider Man', 'Thor', 'Iron Man 3']}
```

Function

```
# user-defined function
def hello(username):
    print("Hello! " + username)
```

```
hello("Toy")
```

```
Hello! Toy
```

```
def my_sum(val1, val2):
    return val1 + val2

result = my_sum(5, 15)
```

```
print(result)
```

```
20
```

OOP

Object Oriented Programming

```
class Dog:
    name = "Toy"
    age = 5
    color = "Brown"
    breed = "French Bulldog"

    # function (Dog method)
    def sitting(self):
        print("I am sitting now!")

    def hungry(self, food_name):
        print(f"I am hungry, I need {food_name}!")
```

```
my_dog = Dog()
type(my_dog)
```

```
__main__.Dog
```

```
my_dog.sitting()
```

```
I am sitting now!
```

```
my_dog.hungry("Hamburger")
```

```
I am hungry, I need Hamburger!
```