```
# Review Python Language

my_name = "sunsun"
my_age = 25

print(my_name)
print(my_age)
```

```
sunsun
25
```

```
# string & fstring in python

my_name = "sunsun"
my_university = "Rangsit University"

my_long_string = """This is very long
    This is a second line
    This is a third line
    """

print(my_name, my_university, my_long_string)
```

```
sunsun Rangsit University This is very long
        This is a second line
        This is a third line
```

```
# fstring template
my_name = "sunsun"
my_age = 25

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

```
My name is sunsun, and I am 25 year old.
```

```
# function designed for string (string method)
text = "a duck walksk into a bar"

type(text)
```

```
str
```

```
text.upper()
```

```
'A DUCK WALKSK INTO A BAR'
```

```
text.lower()
```

```
'a duck walksk into a bar'
```

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

```
'hello world'
```

```
text.count("a")
```

```
4
```

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

```
1
```

```
## replace
text2 = text.replace("duck", "lion")
```

```
print(text)
print(text2)
```

```
a duck walksk into a bar
a lion walksk into a bar
```

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

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

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

```
egg
```

```
print(shopping_list[1])
```

```
milk
```

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

```
bread
```

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

```
['egg', 'milk']
```

```
print(shopping_list[-1])
```

```
bread
```

```
print(shopping_list[-2])
```

```
milk
```

```
print(shopping_list[0:3])
```

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

```
# list method = append
shopping_list.append("banana")
print(shopping_list)
```

```
['egg', 'milk', 'bread', 'banana']
```

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

```
['egg', 'milk', 'bread', 'banana', 'water bottle']
```

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

```
'water bottle'
```

```
shopping_list
```

```
['egg', 'milk', 'bread', 'banana']
```

```
# count the number of items from the list
len(shopping_list)
```

```
4
```

```
# dictionary key-value pair

student = {
```

```
    "id": 1,
    "name": "Mary",
    "age": 22,
    "movies": ["Spider Man", "Thor", "The Godfather"]
}
```

```
student
```

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

```
type(student)
```

```
dict
```

```
# subset
student['name']
```

```
'Mary'
```

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

```
['Spider Man', 'Thor', 'The Godfather']
```

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

```
'Spider Man'
```

```
# add new key
student['city'] = "London"
student
```

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

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

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

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

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

```
# user-defined function
def say_hello():
    print("Hello World")
    print("I am learning Python")
    print("It is awesome")
```

```
say_hello()
```

```
Hello World
I am learning Python
It is awesome
```

```
def hello(username):
    print("Hello! " + username)

hello("sunsun")
```

```
Hello! sunsun
```

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

my_sum(5, 15)
```

```
20
```

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

result = my_sum(5, 15)
print(result)
```

```
20
```

```
## OOP: object oriented programming

class Dog:
    name = "Binnie"
    age = 2
    color = "Brown"
    breed = "Golden Retriever"



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

```
__main__.Dog
```

```
my_dog.name
```

```
'Binnie'
```

```
my_dog.breed
```

```
'Golden Retriever'
```

```
class Dog:
    name = "Binnie"
    age = 2
    color = "Brown"
    breed = "Golden Retriever"

    # function (Dog method)
    def bark(self):
        print("Woof! Woof!")
    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()

my_dog.bark()
```

```
Woof! Woof!
```

```
my_dog.sitting()
```

```
I am sitting now
```

```
my_dog.hungry("Pizza")
```

```
I am hungry, I need Pizza!
```