

# Function

→ group of commands grouped & executed when called

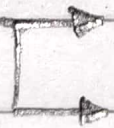
→ reusable block of code

```
def function_name(arguments):  
    _____  
    _____  
    _____
```

2 kinds of Function → ① Built-in Functions ② User-defined function

→ function may have a return statement

⊛ Default Arguments `def function_name(argument = "_____"):`

⊛ Order of Arguments  order of arguments is vital  
or specify `argument_name = value`

⊛ Arbitrary Argument

- variable-length argument → number of values passed isn't specified

```
def function_name(*argument_name):
```

⊛ Default Arguments `def function_name(argument = "_____"):`

⊛ Order of Arguments

→ order of arguments is vital

→ or specify argument\_name = value

⊛ Arbitrary Argument

- variable-length argument → number of values passed isn't specified

`def function_name(*argument_name):`

⊛ Arbitrary Keyword Argument

- if keyword arguments number is unknown `def function_name(**name):`

⊛ Lambda Function (anonymous function)

`variable = lambda argument : statement`



## Errors & Exceptions

→ **Syntax Errors** occurs when python can't interpret the code

→ **Exceptions** occurs when unexpected things occur during program execution

→ **Try / Except** used to handle exceptions

**Finally**

use while loop to allow user to re-enter input if incorrectly inputed the 1<sup>st</sup> time

⊗ you can specify the type of exception & deal with every kind seperately

◆ you can access the error message except \_\_\_\_\_ as e :

print(e)

print(c)

## Files

### → Reading a File

1) Open File

```
f = open('path/file_name', 'r')
```

2) Read File

```
d = f.read()
```

3) Close File

```
f.close()
```

### → Writing to a File

1) Open

```
f = open(' ', 'w')
```

2) Write

```
f.write(" ")
```

3) Close

```
f.close
```

### → Special Syntax

```
with open(' ', 'r') as f :  
    (' ', 'w')
```

It automatically  
closes file

## Import

```
import python_file as alias_name
```



Import

```
import python_file as alias_name
```

import an individual function(s)

```
from module_name import object_name(s)
```

or

```
import package_name . submodule_name
```