



# syntax error

```
[1] print('hello')  
    print('good')  
    print('afternoon')  
    for i in range(5):  
    print(i)
```

File "<ipython-input-1-72ea389f1a2f>", line 5

```
    print(i)  
    ^
```

IndentationError: expected an indented block

## run-time error

# Exception



```
print('hello')  
print('good')  
print('afternoon')  
for i in range(5):  
    print(j)
```

```
hello  
good  
afternoon
```

```
-----  
NameError                                Traceback (most recent call last)  
<ipython-input-2-24a5c94bafad> in <cell line: 4>()  
      3 print('afternoon')  
      4 for i in range(5):  
----> 5     print(j)
```

```
NameError: name 'j' is not defined
```

# logical error

```
[3] a = 100  
    b = 400  
    print(a, '+', b, '=', a-b)
```

100 + 400 = -300

Exception : Run-time Error

# Runtime Error:

- ① python will identify error type
- ② python will allocate memory based on error type
- ③ python will store error information in a memory.
- ④ python will stop executing program

# Runtime Error :

- ① python will identify error type
- ② python will allocate memory based on error type
- ③ python will store error information in a memory.
- ④ python will stop executing program

## Exception Handling

# Runtime error

```
print('Hello')  
print('how are you')  
print(x)  
print('Thank you')
```

$e \rightarrow$  `NameError`  
name 'x' is not defined

try:

```
print('Hello')  
print('how are you')  
print(x)  
print('Thank you')
```

except Exception

print(e)

print('~ continue')

Exit  
from try

block



5162  
try block of code

$e$ :

Exception  
is pre-defined  
Error data-type  
in python