

Naming Conventions

1. Variable names must be in Camel case starting with lower case.

Example: patientID, doctorName, roomNumber

2. Names representing constants (final variables) must be all uppercase using underscore to separate words.

Example: TOTAL_ROOM, ITERATIONS_NO

3. Class Names must use the Pascal Casing Convention.

Example: class MyHospital: // ... y=10

4. Name representing methods must be verbs and written in Camel case starting with lower case.

Example: getName(), computeTotalCost().

5. Lists and Arrays should be declared with their brackets next to the variable name.

Example: my_list = [1,2,3], my_array = np.([1,2,3]).

Specific Naming Conventions

1. 'is' prefix should be used for boolean variables and methods.

Example: isSet, isVisible, isFinished, isFound

2. Plural form should be used on names representing a collection of objects.

Example: Vehicles

3. n prefix should be used for variables representing a number of objects.

Example: nPoints, nDigits

4. No suffix should be used for variables representing an entity number.

Example: tableNo, employeeNo

Exception Names:

Because exceptions should be classes, the class naming convention applies here. However, you should use the suffix “Error” on your exception names (if the exception actually is an error).

Types:

Type conversions must always be done explicitly. Never rely on implicit type conversion.

Example:

```
x = int(5.6),  
a = float(10)
```

Loops:

1. Loop control statements must be included in the ‘for’ or ‘while’ construction.

Example:

For Loop:

```
fruits=["apple", "banana", "cherry"]  
  
for fruit in fruits:  
    print(fruit)
```

While Loop:

```
count = 0  
while count < 5:  
    print(count)  
    count += 1
```

Layout:

1. Basic indentation should be 4.

Example:

```
count = 0  
while count < 5:  
    print(count)  
    count += 1
```

2. The if-else class of statements should have the following form:

Example:

```
if condition:
    {statement}
else:
    {statement}
```

3. Exception must be handled in the following form:

Example:

```
try:
    file = open('filename.txt')
    file.write('Hello World')

except Exception as e:
    print('Cannot open the file :', e)
finally:
    # Make sure to close the file after
    file.close()
```

White Space

- Reserved words should be followed by a white space.
- Operators should be surrounded by a space character.
- Commas should be followed by a white space.
- Colons should be surrounded by white space.
- Semicolons in for statements should be followed by a space character.

Example:

```
x, y = 30 , " text inside quote"

z= 'text inside quote'

if x== 30:

    print(x, y, z)
```

Method Ordering:

Methods order should be Constructor , Public method , Protected method ,Private method.

Example:

```
class myClass:

def _my_protected_method(self):

return "This is a protected method"

def _my_private_method(self):

return "This is a private method"
```