

VARIOUS ENVIRONMENT USED FOR PYTHON

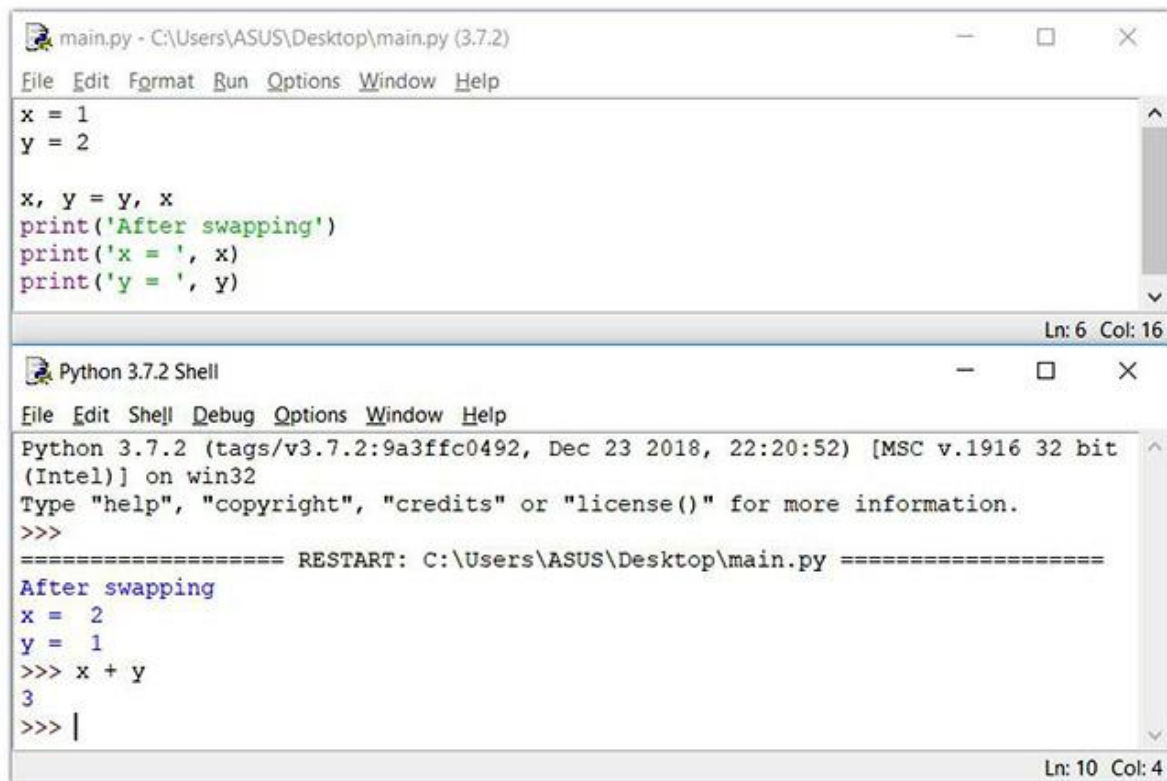
PROGRAMMING

For writing python code, there are various Python IDEs and code editors are available. A code editor is a tool used to write and edit code. An IDE (Integrated Development Environment) understand the code much better than a text editor.

Following are some of the code editors and IDEs used for Python programming.

1. IDLE

When we install python, IDLE is also installed by default. Its major features include the Python shell window (interactive interpreter), auto-completion, syntax highlighting, smart indentation, and basic integrated debugger.



The screenshot displays the Python IDLE interface. The top window, titled 'main.py - C:\Users\ASUS\Desktop\main.py (3.7.2)', contains the following Python code:

```
x = 1
y = 2

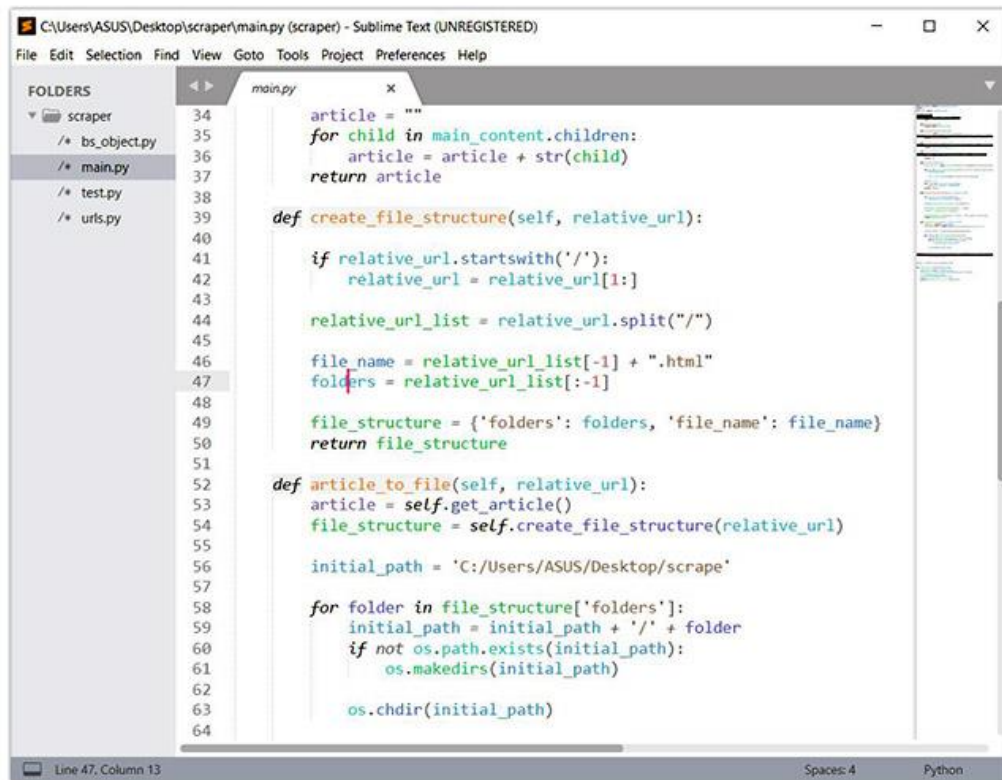
x, y = y, x
print('After swapping')
print('x = ', x)
print('y = ', y)
```

The bottom window, titled 'Python 3.7.2 Shell', shows the output of the script after execution:

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32 bit
(Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\ASUS\Desktop\main.py =====
After swapping
x = 2
y = 1
>>> x + y
3
>>> |
```

2. Sublime Text 3

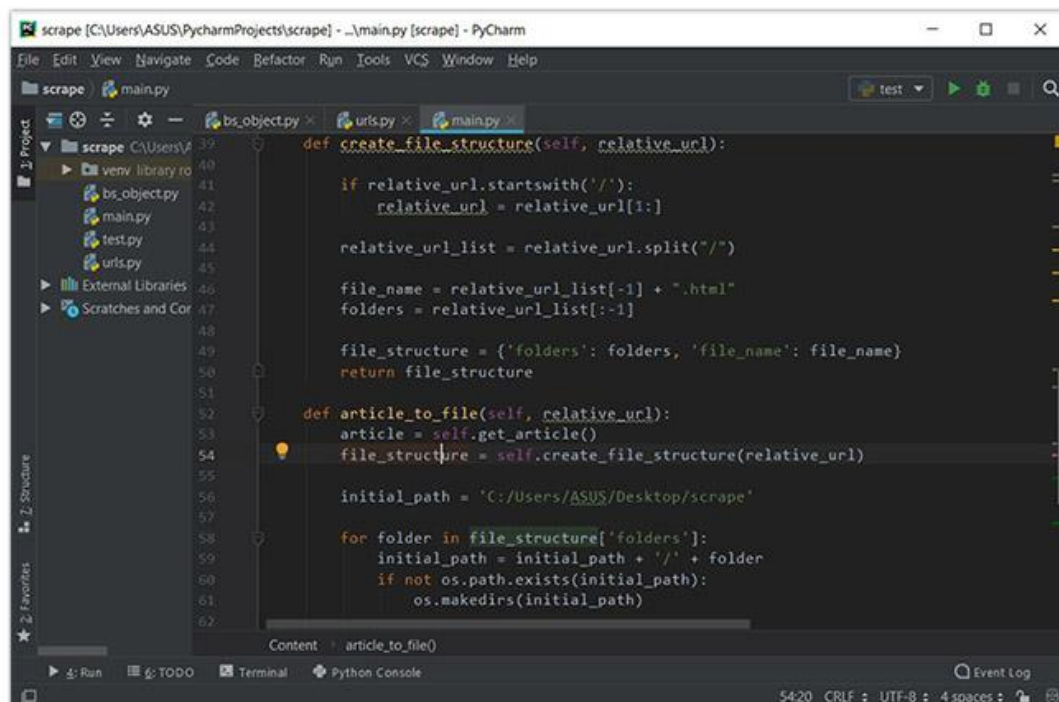
Sublime Text is a popular code editor that supports many languages including Python. It's fast, highly customizable and has a huge community. It has basic built-in support for Python when you install it. However, packages can be installed such as debugging, auto-completion, code linting, etc. There are also various packages for scientific development, Django, Flask and so on. We can customize Sublime text to create a full-fledged Python development environment as per need.



```
34 article = ""
35 for child in main_content.children:
36     article = article + str(child)
37 return article
38
39
40 def create_file_structure(self, relative_url):
41     if relative_url.startswith('/'):
42         relative_url = relative_url[1:]
43
44     relative_url_list = relative_url.split("/")
45
46     file_name = relative_url_list[-1] + ".html"
47     folders = relative_url_list[:-1]
48
49     file_structure = {'folders': folders, 'file_name': file_name}
50     return file_structure
51
52 def article_to_file(self, relative_url):
53     article = self.get_article()
54     file_structure = self.create_file_structure(relative_url)
55
56     initial_path = 'C:/Users/ASUS/Desktop/scrape'
57
58     for folder in file_structure['folders']:
59         initial_path = initial_path + '/' + folder
60         if not os.path.exists(initial_path):
61             os.makedirs(initial_path)
62
63     os.chdir(initial_path)
64
```

3. PyCharm

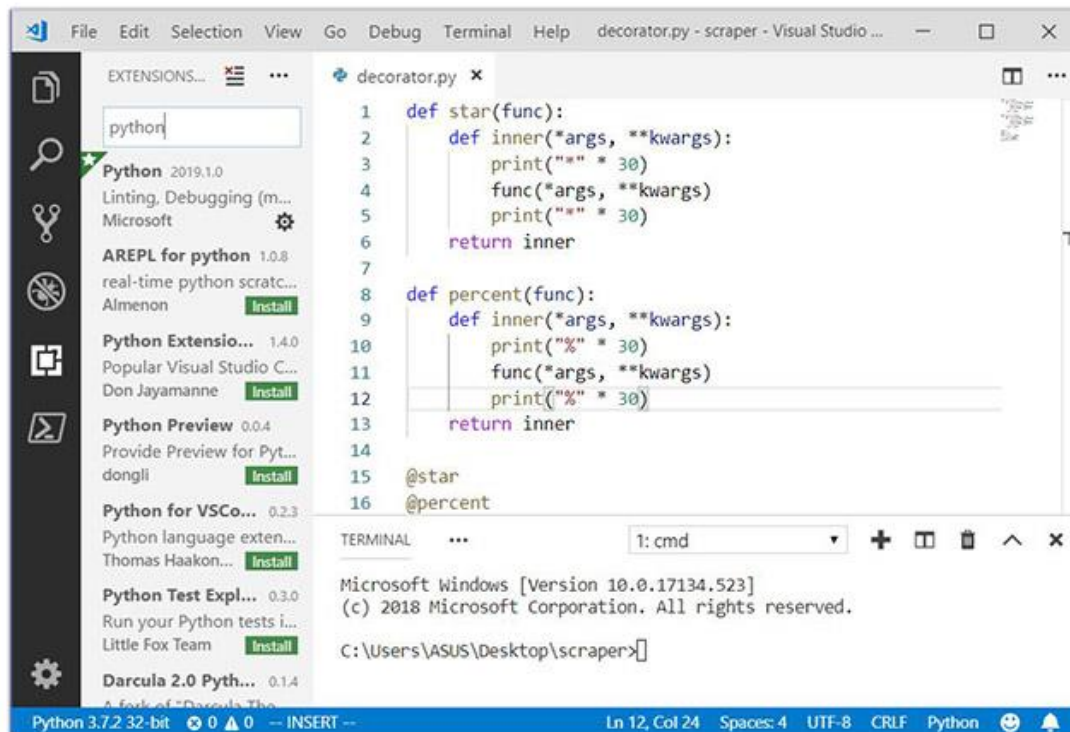
PyCharm is an IDE for professional developers. It is created by JetBrains, a company known for creating great software development tools. PyCharm provides all major features that a good IDE should provide: code completion, code inspections, error-highlighting and fixes, debugging, version control system and code refactoring.



```
39 def create_file_structure(self, relative_url):
40
41     if relative_url.startswith('/'):
42         relative_url = relative_url[1:]
43
44     relative_url_list = relative_url.split("/")
45
46     file_name = relative_url_list[-1] + ".html"
47     folders = relative_url_list[:-1]
48
49     file_structure = {'folders': folders, 'file_name': file_name}
50     return file_structure
51
52 def article_to_file(self, relative_url):
53     article = self.get_article()
54     file_structure = self.create_file_structure(relative_url)
55
56     initial_path = 'C:/Users/ASUS/Desktop/scrape'
57
58     for folder in file_structure['folders']:
59         initial_path = initial_path + '/' + folder
60         if not os.path.exists(initial_path):
61             os.makedirs(initial_path)
62
```

4. Visual Studio Code

Visual Studio Code (VS Code) is a free and open-source IDE created by Microsoft that can be used for Python development. We can add extensions to create a Python development environment as per your need in VS code. It provides features such as intelligent code completion, linting for potential errors, debugging, unit testing and so on. VS Code is lightweight and packed with powerful features. This is the reason why it becoming popular among Python developers.



5. Vim

Vim is a text editor pre-installed in Linux and macOS systems. We need to download it for windows. It has its own keyboard shortcuts and commands. It's also extendible. We can add plugins for syntax highlighting, code completion, debugging, refactoring, etc. to Vim and use it as Python IDE.

