**Aim: Learning of various environment which can be used for python programming.**

**1.Online Compiler from Programiz**

If we want to start writing Python code without investing time installing Python and setting up a development environment, we can use our online Python compiler. We just need the internet and a browser to get started.

**2.PyCharm**

PyCharm is an IDE for professional developers. It is created by JetBrains, a company known for creating great software development tools.

There are two versions of PyCharm:

Community - free open-source version, lightweight, good for Python and scientific development

Professional - paid version, full-featured IDE with support for Web development as well

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. All these features come out of the box. The only major complaint I have heard about PyCharm is that it's resource-intensive. If you have a computer with a small amount of RAM (usually less than 4 GB), your computer may lag.

**3.IDLE**

When we install Python, IDLE is also installed by default. This makes it easy to get started in Python. Its major features include the Python shell window (interactive interpreter), auto-completion, syntax highlighting, smart indentation, and a basic integrated debugger.

IDLE is a decent IDE for learning as it's lightweight and simple to use. However, it's not for optimum for larger projects.

**4.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 we install it. However, we can install packages such as debugging, auto-completion, code lining, etc. There are also various packages for scientific development, Django, Flask and so on. Basically, we can customize Sublime text to create a full-fledged Python development environment as per your need.

We can download and use evaluate Sublime text for an indefinite period of time. However, we will occasionally get a pop-up stating "we need to purchase a license for continued use".

**5.Atom**

Atom is an open-source code editor developed by GitHub that can be used for Python development (similar Sublime text).

Its features are also similar to Sublime Text. Atom is highly customizable. We can install packages as per our need. Some of the commonly used packages in Atom for Python development are autocomplete-python, linter-flake8, python-debugger, etc.

**6.Thonny**

Thonny is a Python dedicated IDE that comes with Python 3 built-in. Once we install it, we can start writing Python code. Thonny is intended for beginners. The user interface is kept simple so that beginners will find it easy to get started.

Though Thonny is intended for beginners, it has several useful features that also make it a good IDE for full-fledged Python development. Some of its features are syntax error highlighting, debugger, code completion, step through expression evaluation, etc.

**7. 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.

**8.Vim**

Vim is a text editor pre-installed in macOS and UNIX systems. For Windows, we need to download it. Some developers absolutely adore Vim, its keyboard shortcuts, and extendibility.

It can add plugins for syntax highlighting, code completion, debugging, refactoring, etc. to Vim and use it as a Python IDE.

**9.Sypder**

Spyder is an open-source IDE usually used for scientific development.

The easiest way to get up and running up with Spyder is by installing Anaconda distribution. If we don't know, Anaconda is a popular distribution for data science and machine learning. The Anaconda distribution includes hundreds of packages including NumPy, Pandas, scikit-learn, matplotlib and so on.

**10.Juptyer Notebook**

The Jupyter Notebook is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text. Uses include: data cleaning and transformation, numerical simulation, statistical modeling, data visualization, machine learning, and much more