Aim: Write various environments which can be used for python programming.

1. **IDLE**
   IDLE is installed by default, when Python is installed. It provides Python Shell Window which is an interactive interpreter. Some other features are- auto- completion, syntax highlighting, smart indentation, integrated debugger. IDLE makes it easy to get started with python and is a decent IDE to learn python as it is simple to use. But, it is not suitable for larger projects.

2. **Jupyter Notebook**
   The Jupyter Notebook is an open-source web application that allows you to create and share python documents that contain live code, equations, visualizations and narrative or explanatory text.
   To install, open cmd prompt- $ pip install notebook
   To run- jupyter notebook
   It can also be used with Anaconda distribution.

3. **Spyder**
   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. Spyder has some great features such as auto-completion, debugging and iPython shell. However, PyCharm offers more features than Spyder.

4. **PyCharm**
   PyCharm is an IDE for professional developers. 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 has following features- code completion, code inspections, error-highlighting and fixes, debugging, version control system and code refactoring.

5. **Sublime Text 3**
   Sublime Test is a popular code editor which supports many languages including Python. It is fast and highly customizable. It has basic built-in support for Python when you install it. However, packages such as debugging, auto-completion, code linting, etc. can be installed. There are also various packages for scientific development, Django, Flask and so on. Basically, you can customize Sublime text to create a full-fledged Python development environment as per your need.

6. **Google Colab**
   Google Colab is an online platform which allows users to write and execute Python in the browser using google cloud. It needs zero configuration. You can share your Google Colab

notebooks very easily. There is no need to install any modules to run any code, modules come preinstalled within Google Colab. The notebook can be easily uploaded on GitHub with just one click.