There are multiple IDEs and Editors that can be utilized by programmers to develop applications, data models, or any kind of algorithm. Each possessing their own set of advantages and disadvantages, the choice of IDE/editor is based on both the programmer’s needs and their preferences. From IDEs focused on developing apps to editors mainly used to work on modifying server-side code, a programmer’s choice can become very complex and varied depending on the programming language, and types of designs. In the end, the best IDE to choose is one that complements your skillset.

There are multitudes of IDEs and Editors. IDEs and Editors have become so prominent that certain programming languages come with their own IDEs or Editors. Python is a programming language that comes together with it’s own personalized IDE (aptly named IDLE). although python has it’s own IDE, it can be utilized together with other IDEs (such as PyCharm) or even Editors (such as NeoVim, or Visual Studio Code) Another programming language that requires it’s own IDE is R, a programming language focused on only on statistical analysis would require an IDE named RStudio to properly evaluate statistical analysis. There are yet other programs that are even more versatile and can be written and compiled through any editor (such as JavaScript, HTML, or CSS). On a similar end of the spectrum there are programming languages that do not even require an IDE or special Editor and can be used using a compiler alone (these programming languages are Java, C++/C, C#, etc.). On the opposite side of the spectrum, there are IDEs that can compile and run programs from any language (such as Visual Studio). The choice of IDE and editor depends on the specific need and preference of the user. An ideal Editor that is very popular among programmers is Visual Studio Code.

Visual Studio Code is an editor created by Microsoft whose sole purpose is to be a lightweight version of their powerful IDE (Visual Studio). This Editor is not only lightweight, but also possesses extensions that allows one to gain the capability of a language server that provides options for what functions to use next. There are other extensions that allows one to distinguish between the number of tabs per line, snippets to fill in boilerplate code, as well as a debug tool that allows one to analyze and improve the code. For personal customization, Visual Studio Code (or VS Code) provides a myriad of themes for both the editor and the icons used to represent the files. Further on customization, for those that are very meticulous with their time, vs code provides extensions that allows one to track the time one spends writing code and making some metrics to show one’s progress in coding when compared to others, and even allows one to play music from Spotify without having to do much outside of the app itself. VS Code even provides one with the ability to work with shortcuts that help programmers maintain their hands within the keyboard and in the case that vs code shortcuts are not preferred, one can create a custom map or install an extension with the same key mappings/style as other IDEs and Editors. Although VS Code is very popular, there are some that would not choose it as their default Editor.

Although Visual Studio Code is very versatile, the extensions required to run many programs or even debug the program can be very slow. This is the biggest issue with VS Code, after this the second largest issue is setting VS Code for programming languages with independent compilers, such as Java, C++, etc. This issue mainly stems from the way that Windows requires manual additions to PATH environment variable after installing compilers, this issue is simplified in a Linux environment where other IDEs and Editors better than VS Code exists. Although it is difficult to use the aforementioned programs in VS Code, one can easily develop applications using the same programs through the IDE version of VS Code (Visual Studio). Using VS Code as opposed to Visual Studio for python development is faster and easier to handle as there is no need to start a project to create a single module or script using python. Running the program is not difficult, although it can sometimes be very slow to load the errors in syntax and warnings on the debug console/Problems tab. A comparison between two Editors (python’s IDLE and VS Code) was done and the results can be shown in the figures below. One can observe that VS Code’s editor is not as fine tuned as IDLE when it comes to graphically determining the reference points on Axis (y-axis increases a tick every 2,000 as opposed to IDLE which increases in tick every 1,000).

To conclude, Visual Studio Code is an ideal editor that can be utilized for programming almost any language. It may take some difficulty setting up VS Code for certain programming languages due to the environment that one uses, such as windows. Yet in the case that one does not prefer a general purpose editor and wishes for an editor that can be customized for a specific jobs, options such as Vim and NeoVim are available. In the end, the choice of IDE or Editor is up to the programmer’s needs and preferences.

Chart, histogram

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Figure 1: Resulting Graph of Thompson Sampling for VS Code.

A screenshot of a computer

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Figure 2: Image of VS Code Editor

A picture containing application

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Figure 2: Python IDLE and Thompson Sampling Results