Computational Skills – Task 3

Visual Studio Code v Eclipse

Eclipse is a popular integrated development environment (IDE) that is widely used for Java development, but it also supports a wide range of other languages, including C++, Python, and PHP.

VS Code is a source code editor that includes support for debugging, version control, and code refactoring, as well as features for working with languages such as HTML, CSS, and JavaScript. It is a lightweight, fast editor that is highly customizable and extensible, with a wide range of extensions and themes available as you can see from my VS pet's extension.

It sounds silly, but the vast number of extensions available to you with VS code is one of the reasons I opted to use it. The VS code pets extension isn't the most helpful when coming to actually coding, or debugging etc, however it is fun to have a little pet there keeping you company while you're working away.

I also find VS code to be the one of the most visually appealing considering you can spend an insane number of hours glued to your screen. It helps having a wide range of dark themes and a modern aesthetic to go with it. VS Code has a more modern, sleek user interface compared to Eclipse. VS Code's interface is more minimalistic and easier to navigate, while Eclipse's interface can be more cluttered and overwhelming.

Eclipse, on the other hand, is a more feature-rich, full-featured IDE that comes with a wide range of built-in tools and features. This can make Eclipse more complex and harder to customize, but it also means that it has more functionality out of the box. For someone like myself I consider myself to be a low-level computer programmer, so VS code just made sense to dabble my feet into the water with.

Another important difference between the two is the type of development they are best suited for. VS Code is known for its excellent support for web development and front-end technologies like HTML, CSS, and JavaScript. It also has great support for popular front-end frameworks like React and Angular. Eclipse, on the other hand, is better suited for Java development and has excellent support for enterprise applications. It also has built-in tools for debugging, profiling, and testing Java code. As I am still new to this and have only really been working with Python, HTML, CSS, JAVASCRIPT and C all of which are VS code both accommodates and specialise in make it ideal for me really.

In terms of performance, VS Code generally has a faster start-up time and requires less memory than Eclipse. This is because VS Code is built with modern web technologies like Electron, which are optimized for performance. Eclipse, on the other hand, is built on older Java technologies and can be more resource intensive.

Both Eclipse and VS Code have a large community of developers and a wide range of plugins and extensions available. Eclipse has a more established and mature ecosystem, with a wider range of plugins available. VS Code's ecosystem is newer and growing quickly, with a focus on modern web development tools.

In terms of overall usability and user experience, VS Code is generally considered to be more user-friendly than Eclipse. The lightweight and customizable nature of VS Code makes it more accessible to new developers and those who prefer a simpler interface like myself.

In conclusion, both VS Code and Eclipse are powerful IDEs with their own strengths and weaknesses. VS Code is a more lightweight and customizable code editor that is best suited for web development and front-end technologies. Eclipse is a more feature-rich, full-featured IDE that is better suited for Java development and enterprise applications. The choice between the two ultimately depends on the specific needs of the developer and their preferred development workflow.