***Hardware Requirements:***

With every operating system there are hardware requirements, and some may need not that much but some may need more than others. When using machine language little to no requirements are needed in order to operate because they functionality of machine language is used for things such as domestic appliances such as washing machines that don’t use any smart technology such as a touchscreen. The hardware requirements for python are very straightforward and it only requires a 64-bit processor, 4GB of RAM and 5GB Free Disk Space which may sound more demanding in comparison to the requirements for Machine Language but its just the bare minimum for any device in today’s age. C# is one of the most demanding programming languages consisting of a minimum of 1.8GHz Processor, 8GB of RAM and at least 20GB of Free Disk Space which is 4 times more to what python needs to operate.

***Software Requirements:***

Each programming language has their preferred application of choice to be written in, but some may be like each other. Machine Language once again has very low requirements, you only need a web browser in order to start writing machine code. When programming with python the only software requirement is that you have an operating system, since python is cross-platform you don’t have to worry which operating system you need to use since it works on any. The most popular software for coding with C# is Visual Studio Code made by Microsoft which may sound restricted, but it comes with a long list of features and cross-platform.

***Special Devices Needed:***

When it comes to Machine Language there are no special devices needed and all the work is all done on the computer with no external support. Like Machine Language, Python doesn’t require any special devices in order to function if it meets the software and hardware requirements. Same goes for C# as well.

***Preferred application areas:***

Machine Code is mostly used for domestic appliances such as washing machines

***Development Time:***

This is important to keep these in mind when developing software because a program should always be fast and reliable whenever you want to complete a set due task. For example, when you run a program, you must be able to depend on it and it must work at least 95% of the time.

***Ease of Development:***

This is important because when a new program comes out or if it’s just an alternative of another program must be easy and friendly for new users to use. For example, if the applications are not well organised and not easy navigate the use then users will become frustrated. This can end up with negative feedback and an overall bad reputation on your behalf.

***Command Words***

Command words are the words and phrases used in exams and other assessment tasks that tell students how they should answer the question.

***Constants***

A constant is a type of variable which cannot be changed and usually used to declare and assign for different assignments.

***Variables***

A variable in is a name that is a reference to an object that is a location to save data into binaries. It must start with a \_ but not a number and it must not be including any spaces but use \_ instead of spaces.

***Local and Global Variables***

Local Variable is defined as a type of variable declared within programming block or subroutines. It can only be used inside the subroutine or code block in which it is declared. The local variable exists until the block of the function is under execution. After that, it will be destroyed automatically. A Global Variable in the program is a variable defined outside the subroutine or function. It has a global scope means it holds its value throughout the lifetime of the program. Hence, it can be accessed throughout the program by any function defined within the program, unless it is shadowed.

***Data Types – String***

***Data Types – Integer***

***Data Types – Real***

***Data Types – Boolean***

***Data Types – Character***