Software Programming and Coding Glossary for Kids

Programming skills are incredibly useful, especially if you start learning them while you're young. Knowing how to code opens doors to new careers, helps you think in logical ways, and increases your knowledge of the world around you. Choosing to learn to code is a greatway to improve yourself and have fun while doing it. Getting started, however, can be hard. Not only do you have to find the right lessons, games, or activities, but the words people use to talk about coding all seem like a bunch of jargon at first. But once you've got a handle on all of these words and what they mean, learning to make software can be a piece of cake.

**Binary:**Binary is how to represent information with only two options. In computers, the options are 0 and 1, and everything on a computer is in binary.

**Bug:**A bug is an error in your software that prevents it from running or causes it to do unexpected things.

**Byte:**This is the most fundamental unit of data in programming.

**Conditionals:**These statements only run when certain conditions are met, such as when a variable has a certain value.

**Data:**Data is information. Manipulating data is one of the most important parts of coding, and data can consist of both inputs and outputs.

**Debug:**Debugging is the process of identifying and removing the bugs in your code. This is often achieved by going through the code line by line until the culprit is found.

**DNS (Domain Name Service):**This is the service that converts a server's IP address into a URL and back again.

**Event Handler:**An event handler triggers when the event it's waiting for happens, such as when the mouse is clicked. It will run the code you put inside it every time this happens.

**Function:**A function is a piece of code separated from the rest of the code that can be used over and over again. It has its own name and will only run when you ask it to.

**If Statement:**This is the most common form of a conditional statement. If the condition is true, the code inside the statement executes.

**Input:**Inputs are the data you put into the program or computer.

**Iteration:**An iteration is a repeated piece of code, usually created using loops.

**Loops:**Loops run the same piece of code over and over until a condition is reached, such as finding a certain value.

**Output:**Outputs come out of the computer or your program. They are a form of data and can be words, numbers, or even special programming objects.

**Packets:**The Internet is built on packets. Packets contain small units of data and are sent piecemeal over the Internet. Then, they are reassembled into the data you are receiving.

**Parameter:**A parameter is a type of variable that can pass information from one function to another.

**Pixel:**Pixels are the fundamental unit of an image online. A pixel is a single tiny square that contains a single color, and pixels combine to make a full image.

**Program:**A program is an algorithm that can be run by a computer. It carries out commands, accepts inputs, and outputs data.

**Run:**In programming, software "runs." This means that it begins to execute the code that you've written.

**Server:**A server is where data and programs are stored and can be accessed by other computers. Servers serve as digital storage units or sometimes can run code.

**URL (Universal Resource Locator):**This is the text that you type in a Web browser to go to a page. The DNS translates this into the proper IP address and connects you to that server.

**Variable:**A variable is a placeholder for a piece of data. It could be a name, a number, or the whole dictionary.