**COMPUTER SOFTWARE. PROGRAMMING LANGUAGES**

Computer software is a general term used to describe a collection of computer programs, procedures and documentation that perform some tasks on a computer system. Software includes websites, programs, video games, etc. that are coded by programming languages like C, C++, etc. The term "software" is sometimes used in a broader context to mean anything which is not hardware but which is used with hardware, such as film, tapes, records, etc.

In computers, software is loaded into RAM and executed in the CPU. Once the software is loaded, the computer is able to execute the software. This involves passing instructions from the application software, through the system software, to the hardware which ultimately receives the instruction as machine code. Each instruction causes the computer to carry out an operation. Software is usually written in high-level programming languages that are easier and more efficient for humans to use than machine language. The term "software" was first used by John. W. Tukey in 1958.

There are different classes of computer software which are useful for several purposes. System Software coordinates the complete system hardware and provides an environment or platform for all the other types of software to work in (Microsoft Windows 10, Mac OS, Linux, Ubuntu, Apple's iOS, Google's Android, Windows Phone OS). Application Software comprises those programs that help the user perform tasks of his/her choice (MS Office, Open Office, Media Players, educational software, antivirus software, etc.). Programming Software is used to write, test, debug and develop other software programs and applications. Different programming language editors, debuggers, compilers and Integrated Development Environments are examples of programming software: Eclipse, Coda, Notepad++, Sublime Text.

There are five additional subcategories of software. These are: Freeware; Shareware; Open-Source Software; Closed Source Software; Utility Software.

Freeware Software is any software that is available to use for free. Shareware, on the other hand, are software applications that are paid programs, but are made available for free for a limited period of time known as 'trial period'. Open-Source Software is a type of software that has an open-source code that is available to use for all users. Closed-Source Software’s source code is the intellectual property of software publishers. Utility Software manages the performance of your hardware and application software installed on your computer to ensure they work optimally.

Programming language is a computer language a programmer uses to develop software programs, scripts, or other sets of instructions for computers to execute. Although many languages share similarities, each has its own syntax. Once a programmer learns the languages' rules, syntax, and structure, he writes the source code in a text editor or IDE. Then, the programmer often compiles the code into machine language that can be understood by the computer. Scripting languages, which do not require a compiler, use an interpreter to execute the script.

Application and program development involve programs you work with on a daily basis. Artificial intelligence or related fields involve creating the character interactions in computer games, portions of programs that make decisions, chatbots, and etc. Database developers create and maintain databases. Game development involves creating computer games or other entertainment software. Computer drivers and programming hardware interface support are a necessity for hardware functionality. Internet and web page development are the essence of the Internet.

There are dozens of programming languages used in the industry today. Some most important, relevant and in-demand of these languages are Python, Java, Ruby, HTML, JavaScript, C, C++, C#, PHP, SQL and Swift.