## University of Bejaia

## Department of Computer Science

## First year students

## Module : Technical English

## Lectured by Mrs Hadjara

## lesson one : : What Is Software Programming?

Software programming a profession within the computer technology field that primarily deals with writing code. Read on to get a programming and software development definition as well as a computer software programmer job description.

**Software Programming Definition :**

Software programming is the act of writing computer code that enables computer software to function. The computer technology field often has overlapping terminology that can be confusing to discern. Software programming is not the same as software development. Development is the actual design of a program while programming is the carrying out of the instructions of development. People who program software are called computer programmers.

**Types of Software Programming :**

Software programs are usually categorized into the programming languages that are compatible with them. There are many types of programming languages in existence, but below is a list of some well-known codes and what they are used for.

* **JavaScript**. JavaScript is commonly used on websites to add interactive elements.
* **SQL (Structured Query Language)**. SQL is a database query language that allows websites to transfer data from large databases.
* **Python**. Python is a language used for a wide variety of things, from web apps to data analysis.
* **Java**. Java is typically used in video games and mobile apps, including apps for Android devices.
* **C#**. Comparable to Java, C# is used for Microsoft apps.

Many of these programs offer certification from the company that developed them. For instance, Oracle has the Oracle Certified Associate Java Programmer (OCAJP) and the Oracle Certified Professional Java Programmer (OCPJP) certification. Certification typically involves passing an exam; getting certified is an important step in proving your knowledge and finding employment as a computer programmer.

## Computer Software Programmer Job Description :

Computer software programmers are commonly known as computer programmers. Computer programmers and software developers often get mixed up because they work together and a lot of their job duties overlap. The main distinction between the two is that computer programmers are primarily responsible for the code that enables software programs to work. A few job duties that are specific to computer programmers include:

* Updating and expanding existing programs
* Writing new programs in various languages
* Testing programs for mistakes and fixing faulty code
* Using code libraries, or collections of independent code lines, to simplify the code writing process

Computer programmers may perform the same tasks as developers on occasion. This can include designing the software, planning how the code will be written, and developing an interface or application.

The amount of work computer programmers do depends on how complex the code they are writing is. Different software will require different types and amounts of code, all of which have varying levels of difficulty. Some projects can take up to a year to complete. Much of the work is solitary, and many programmers work from home.

## Computer Programming Education :

[Becoming a computer programmer](https://learn.org/articles/Computer_Programming_5_Steps_to_Becoming_a_Computer_Programmer.html) typically requires a bachelor's degree in computer science or another related field. Many employers require a bachelor's degree, but some individuals with an associate's degree can qualify. Programmers who work in specific fields may need to take additional courses so they have a working knowledge of the field. For example, a programmer who writes accounting programs may take [accounting courses](https://learn.org/articles/Where_Can_I_Find_Free_Accounting_Courses_Online.html) to get a basic understanding of the accounting industry and the needs of the user.

Computer science degrees typically teach students through hands-on experience, where they will learn how to write code, fix errors, and test programs, among other duties. Students in this degree usually don't learn every programming language, but they are given the skills necessary to learn on their own. Some computer programmers may take continuing education courses or attend seminars to keep up with changing technology.