

\_ In my opinion, programming means how to make your computer do something you want. For example, you are a teacher and you want to know your student's score. You enter the student's name, class in your computer and the program will give you his score. Your computer do your order to solve a problem. In usual, a program includes: problem analysis, finding solution algorithms; write the program. Then try the program on your computer and fix the error until the program runs. when it meets your needs, it is successful. \_Procedural programming is a solution to solve a problem. procedural programming divide a big problem into many small parts. Each section has its own independent and function. Therefore, a program can have many people to join, easy to program, easy to test, easy to check and adjust. \_Main features of procedural programming: + Dividing program into many small parts + The functions work independently of each other + easy to divide work for everyone, save time, easy to test, easy to check and adjust. \_ Computer can understand and do what you request by computer programming languages. It is like human language. A language is called programming languages when this language gives instructions for computer. There are many types of programming languages. The difference between types related to the degree of dependence of they enter architecture, computer operations, sub belongs to the field of application. Language is divided into different groups because there are many ways \_Classification. Languages are classified into 3 groups: +Machine language +Assembly language +High-level language \_Every computer type has its own machine language. It is the only language for writing programs that computers understand and do. The commands of this language write with binary code or remote code exploiting the hardware characteristics, but it is not convenient for programmers due to the hard to remember code, the lack of structure, ... Therefore, to write an application in machine language, it is not easy, especially to make changes, modifications or developments or add more later. \_ Programmers can use some abbreviated English words to represent commands in assembly language. An assembly program must be translated into machine language before the computer can perform it. \_ High-level language: before the machine can do commands it is necessary to switch to machine language. It is called translation process, there are 2 types of translations: + Interpretation: reading program commands, parsing. If it is correct then do it. The process starts from the first command of the program to the last command if there is no error while running. This interpreter has the same role as an interpreter. + Compile: translate the entire source program into the target language. So the machine can understand and execute. The compilation process creates the target program if the commands do not contain errors in the source program. When they can execute directly in specific numerical form in your computer is known machine language and called assembly language after simple substitutions. Algorithm language is used to represent mathematical, symbolic calculation mathematical. Object-oriented languages help user to manage complexity in large programs. Data and the operations are publicly accessible and internal details of the data structures are hidden. This information hiding made large-scale programming easier and programmer can think about each part of the program in isolation. There are many languages what programmers can use to communicate with computer. For example: C++ language, Java,... Also we have: declarative languages, scripting languages, document formatting languages,...