Let’s try to understand How Machine or Computer Works?

We Need to give some instructions to perform work on computer.

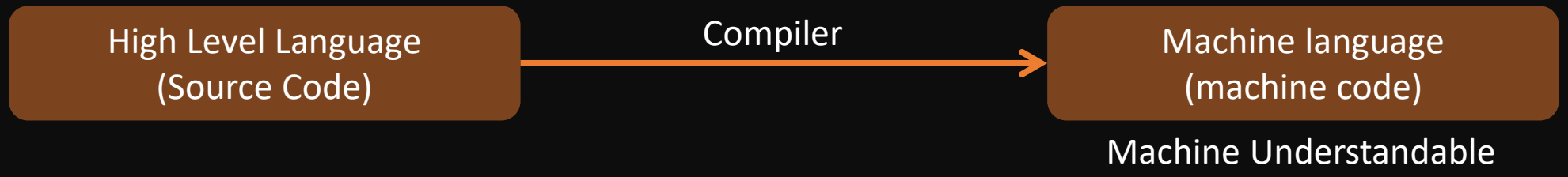
So, the question is Does the machine understand human language?

Absolutely Not ❌

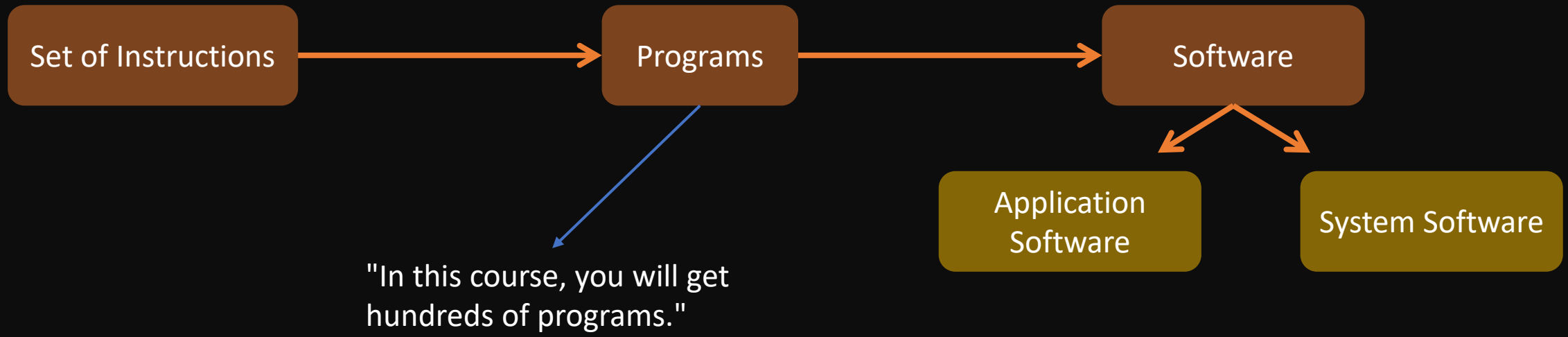
Machine Or Computer only understand machine language in terms of 0 & 1 or ON & OFF (binary number system).
Machine language is the fastest language, but the problem is machine language is very tedious and not easy to understand.

To avoid all these problems, High level languages come into play. Since high level language uses English keywords and meaningful syntaxes, high level languages are easy to understand.

So, nowadays we give our instructions in any high-level language like C#, C++, javascript etc.



Stages To Create Any Software



Let’s Start With Some Technical Terms

Program : A set of instructions given to computer to perform a particular task is known as program or computer program

Programming : The Process of writing computer program is known as programming

Programmer : A Person who write computer program is called programmer.

Language: It is a medium through which one can communicate with other

Programming language : A language used to stablish the communication between human to computer or vice versa or computer to computer

Compiler : A compiler is a computer program that translates computer code written in one programming language (the source language) into another language (the target language).

Algorithm : Step by step planning to solve a problem is called Algorithm

Flowchart : Diagrammatic representation or Pictorial representation to show the process of execution is known as flowchart

Pseudo code: Generic Code form of Algorithm to solve a problem is called Pseudo Code

Algorithm : Step by step planning to solve a problem is called Algorithm.

E.g. : Algorithm to add two numbers:

Step-1 : Start
Step-2 : Read Two numbers
Step-3 : Add both numbers
Step-4 : Print the Results
Step-5 : Stop

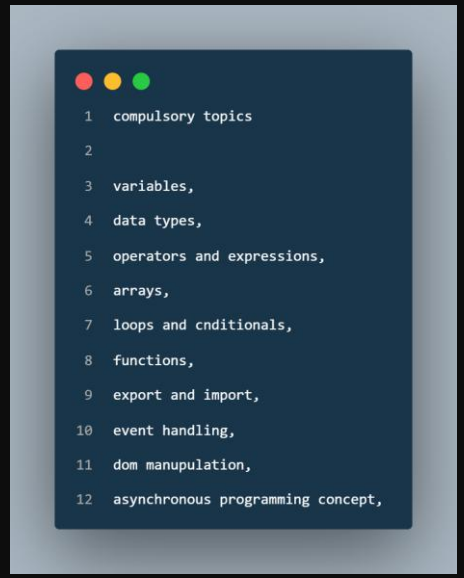
YouTube Algorithms

Analogy :
Suppose we have to go to the computer lab

Step-1 : Will take the notebook.
Step-2 : Will leave class to go to the lab.
Step-3 : Will take off our shoes outside lab.
Step-4 : Will sit at their respective places in the lab

JavaScript is a programming language used to create interactive web pages, applications, and games. It's a core technology of the World Wide Web.

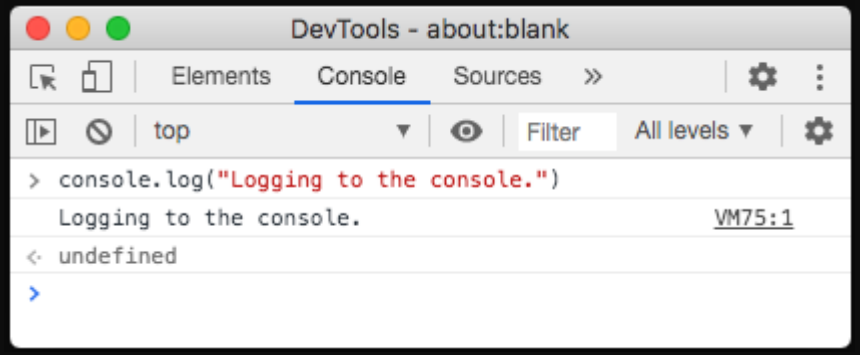
In the field of Web Development , JS is called as the engine or brain of the website.



History You Need To Know:

- Originally, JavaScript was named Mocha, later changed to Live Script, and finally to JavaScript.
- Since its launch on December 4, 1995, JavaScript has continuously improved. Over the years, it has become one of the most powerful programming languages. Its ecosystem includes frameworks like React, Node.js, and Vue.js

1. Use JavaScript In Browser Console



2. Use JavaScript In VS Code using node js

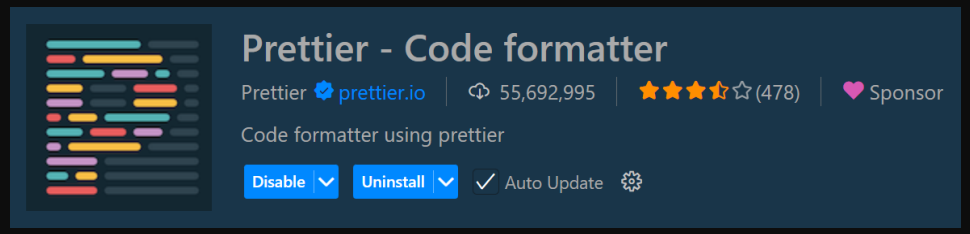
NOTE:

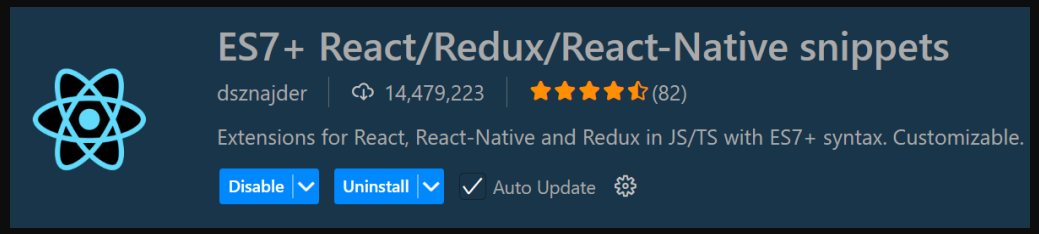
- ❑ Some of the functions are browser specific which you can't use in VS Code directly (ex- alert, prompt).
- ❑ To use these commands in Vs Code as well, you need to follow the 3rd connection method.

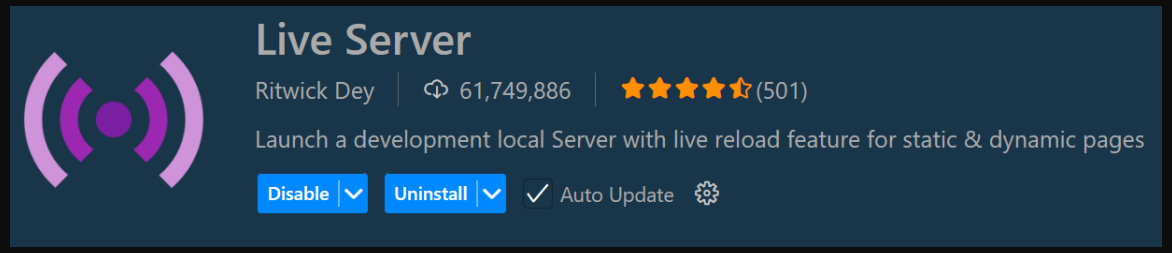
3. Connect browser & nodejs environment

- ❑ Create index.html
- ❑ Connect you javascript (.js) file with index.html
- ❑ Run your html file on browser (use live server extension for real-time update)
- ❑ Now you are free to use javascirpt code in your browser as well as in VS Code

Important Extensions & Settings:







Settings:

- ❑ Auto Save Setting
- ❑ Format On Save Setting

Please Keep in mind:

- Don’t compare javascript with java.
- JavaScript helps in manipulation of webpages.
- JavaScript Responds to user actions. (like on mouse click, keyboard interactivity, etc)
- JavaScript helps to interact with server or database. (Fetches and sends data to server)

NOTE:
- We learn JavaScript with use cases.