*Statically typed programming languages :*

1.programming languages do type checking, at compile-time as opposed to run-time.

2. Examples of statically typed languages are :- Java, C, C++

3. In a **statically typed language** variables' types are static, meaning once you set a variable to a type, you cannot change it. That is because typing is associated with the variable rather than the value it refers to.

4. The main advantage here is that all kinds of checking can be done by the compiler, and therefore a lot of trivial bugs are caught at a very early stage.

*Dynamically typed languages:*

1. Dynamically typed programming languages do type checking at run time as opposed to compile-time.
2. Examples of dynamically typed languages are :- Perl, Ruby, Python, PHP, JavaScript
3. in a **dynamically typed language** variables' types are dynamic, meaning after you set a variable to a type, you CAN change it. That is because typing is associated with the value it assumes rather than the variable itself.
4. A language is dynamically typed if the type is associated with run-time values, and not named variables/fields/etc.

**Programming Language :** Is compiled to machine code and run on the hardware of the underlying Operating System.

**Scripting Language :** Is unstructure subset of programming language. It is generally interpreted. it basically "scripts" other things to do stuff. The primary focus isn't primarily building your own apps but getting an existing app to act the way you want, e.g. JavaScript for browsers, TCL etc.,

**Scripting languages** are not compiled to machine code by the user (python, perl, shell, etc.). Rather, another program (called the interpreter, runs the program and simulates its behavior)

Some **programming languages** that are not scripting (C, C++, Haskell, and other 'compiled' languages), are compiled to machine code, and is subsequently run.

Some examples of "scripting" languages (e.g., languages that are *traditionally* used without an explicit compilation step):

* Lua
* JavaScript
* VBScript and VBA
* Perl

And a small smattering of ones *traditionally* used with an explicit compilation step:

* C
* C++
* D
* Java *(but note that Java is compiled to bytecode, which is then interpreted and/or recompiled at runtime)*
* Pascal

Difference between HTTP1.1 vs HTTP2

