

CS330: Programming Language Project (PLP)

Assignment 1: Language selection and overview

For this assignment, you will pick the programming language that you want to use for the PLP. This is the language that you will use for the rest of the semester and for your final project, so make sure that it's a language that has good documentation, either in books or on the Internet.

You must check with me for approval before selecting your language. At most only 2 students can work on the same language, and signing up is first-come, first-serve. (You should probably pick your language by Tuesday the 8th.)

Assignment 1 is all about learning what your language's basic properties are, and what it's used for. Select your language, and answer the following questions about it.

1. What is the name of your language?

The name of my programming language is Lua.

2. When/where was it created, and by whom? Was it written to address a particular problem or need?

Lua was created in 1993 by a team at the Pontifical Catholic University of Rio de Janeiro (PUC-Rio) in Rio de Janeiro, Brazil.

3. Is it primarily structural, functional, scripted, object-oriented, or a combination of these? Or something else?

Lua is a combination of object-oriented, functional and structural programming.

4. Is it compiled or interpreted, or a combination? Does it use a virtual machine?

Lua is interpreted with a register-based virtual machine, and has automatic memory management with incremental garbage collection.

5. What types of programming is your language primarily used for (ex: web sites, video games, mobile devices, parsing, etc.). If your language is multi-purpose, provide some examples of different projects it's been used for.

Lua is primarily used for industrial applications such as Adobe's Photoshop Lightroom and games, including World of Warcraft and Angry Birds.

6. Search on Github.com for your language: what are the 3 most popular projects (the ones with the most stars) involving your language?

[VeryNginx](#)

[Lite](#)

[Awesome](#)

7. Where will you get information about this language when it's time to start programming in it? At the end of your assignment, provide a list of the names of books, website URLs, or any other resources that relate to your language in particular.

I would use the official websites for [Lua](#). Within the website there are resources with textbooks like [Programming in Lua](#) by Roberto Ierusalimsky.

The answers to these questions will be put in a GitHub repository that you create, which you will send me a link to. Make sure that your answers are clear, accurate, and fully-formed: remember that these tutorials are public, and GitHub users don't have the context of the assignment that you do.

Explain the reasoning behind the answers as much as possible. If there is no clear-cut answer to a question, explain why not. And cite your sources!

A sample GitHub tutorial (for Perl) can be found here:
<https://github.com/amber-stubbs/PerlTutorial>

Work Cited

The Programming Language Lua, www.lua.org/.