CS330: Programming Language Project (PLP)
Assignment 4: Control flow

Due: October 6th

Now that you know about the data types in your programming language, it's time to start actually using them. Find out how the following control statements are written in your language, and write an example of each. If your language doesn't support these control statements specifically, try to find a way to emulate the behavior:

> a one-condition if/else statement (i.e. "if x == true")
> a multi-condition if/else statement (i.e. "if x>0 && y< 10)
> different kinds of loops: while, do/while, for, foreach
> a switch-case statement
> break and continue statements

For your write-up, answer the following questions:
1. What types of conditional statements are available in your language? (if/else, if/then/else, if/elseif/else). Does allow for statements other than "if" (for example, Perl has an "unless" statement, which does the opposite of "if"!)
2. Does your language use short-circuit evaluation? If so, make sure that your code includes an example.
3. How does your programming language deal with the "dangling else" problem?
4. Does your language include multiple types of loops (while, do/while, for, foreach)? If so, what are they and how do they differ from each other?
5. Can you use break or continue statements (or something similar) to exit loops?
6. If your language supports switch or case statements, do you have to use "break" to get out of them? Can you use "continue" to have all of them evaluated?
7. Is there anything special in terms of control flow that your language does that isn't addressed in this assignment? If so, what is it and how does it work? Make sure to include an example of it in your code as well.

If your language doesn't support anything like this, then explain why not and what it does instead (feel free to check in with me on this if you aren't sure what your language does).

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!

You can incorporate code into your tutorial to show examples, but you should also have a file in your repository that is just commented code, that demonstrates how all of these FoPC statements are written in your language. This should be a file that someone could download and run.