

1. What are the naming requirements for variables in your language? What about naming conventions? Are they enforced by the compiler/interpreter, or are they just standards in the community?

To name a variable in R, the naming requirements are as follows:

The variable must start with a letter or a period.

Following the letter, the rest of the variable can be a combination of letters, numbers, period, and underscores.

Following the underscore, the same rules apply except it cannot be followed by a number

Variable names are case sensitive

Reserved words, like TRUE, FALSE, NULL, cannot be used as variable names.

These rules are enforced by the compiler, and it won't accept a variable outside of these conditions.

2. Is your language statically or dynamically typed?

R is dynamically typed. The user doesn't have to declare the variable type when they're declaring the variable. Except with an integer, it will be read as a numeric variable unless an "L" is added to the end of the number.

3. Strongly typed or weakly typed?

R is strongly-typed. If you try to add a numeric type to a string, it doesn't allow it.

4. If you put this line (or something similar) in a program and try to print x, what does it do? If it doesn't compile, why? Is there something you can do to make it compile? x = "5" + 6

This line gives back an error. It's because the language is strongly-typed and doesn't allow numerics and strings to be added. To make it compile, turning the 5 into a numeric, like the 6, will work.

5. Describe the limitations (or lack thereof) of your programming language as they relate to the coding portion of the assignment (adding ints and floats, storing different types in lists, converting between data types). Are there other restrictions or pitfalls that the documentation mentions that you need to be aware of?

The biggest and only limitation of the coding portion of this assignment was not being able to implement a dictionary.

6. Are there built-in complex data types that are commonly used in your language? (hint: they'd probably appear fairly early in the documentation if so)

Yes, there is a data type in R that's called 'complex' and it's capable of storing imaginary numbers.