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CMSC 331

May 15, 2018

Professor Wilkinson

Ruby, not the gem but the language

Ruby is a language created by Yukihiro Matsumoto in Japan around the mid 1990's. Yukihiro Matsumoto designed Ruby to make programming fun for programmers and so that the language can be understood by humans first and computers second. Matsumoto at the time knew about Python and Perl but he said that Perl was a "toy" language and Python was not a true object-oriented programming language; therefore, he created his own. Matsumoto wanted his language to be syntactically simple, truly object-oriented, having iterators and clauses, exception handling, garbage collection, and to be portable. Matsumoto released the first version of Ruby in December of 1996, then later in 2005 Ruby on Rails was released to the public. Ruby on Rails made Ruby a popular programming language at one point because it was a great tool for developing web applications. Some top sites that were developed using Ruby on Rails are Hulu, GitHub, Airbnb, Twitter, Shopify, Indiegogo, Bloomberg Business, and CrunchBase.

When using Ruby 1.9.2 to complete this project I came upon many useful built in classes that assisted me to keep the length of my programs short and easily readable to viewers. For example the .uniq! function helped me keep my program short for problem #1 because this function would find repeated words in my array. This was a great help because I did not have to create my own function that would iterate through the array and delete the repeated strings. Additionally, some of the problems in the project were using arrays and Ruby makes it very

simple to create and edit array. The array in Ruby did not have to have a set length, it almost mimicked a vector in C++. Therefore, editing the array was very simple because programmers did not have to worry about dynamically allocating space for any changes made to the array such as adding or removing elements from the array. However, iterating through the array was quite troublesome because Ruby has complex syntax for getting the index when using a for loop. Out of all the loops that I utilized for this project, the while loop was the easiest to use because of its simple syntax. The for loops contained some complex syntax especially if you wanted to do a certain action at a specific index. Furthermore, Ruby makes declaring variable simple because the programmer does not need to specify what type the variable needs to be. However, because of flexibilities such as this, Ruby is slow due to the machine having to reference multiple times to ensure that the correct definition is created. As a result of the multiple references the performance of Ruby declines. An example would be problem #6 of this project, when calling the recursive Golomb function 50 times the Ruby program takes about thirty-two seconds to finish running the program.

Personally, I think that Ruby is an exciting language to learn because Yukihiro Matsumoto really did make Ruby so that it is easy and fun for beginner programmers to learn object-oriented programming. Additionally, the ruby community is expanding every year, and currently it is the 5th largest meetup community and 6th most active language on GitHub. Though, Ruby may not be for all as it does have its advantages and disadvantages because Ruby is better used for developing web applications rather than desktop applications. Therefore, Ruby may be liked by some programmers and disliked by others, all due to what kind of application the programmer wants to create.

Sources

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