RUBY

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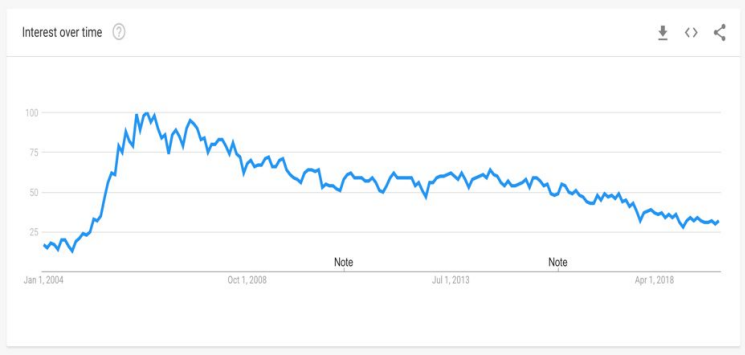
Ruby History

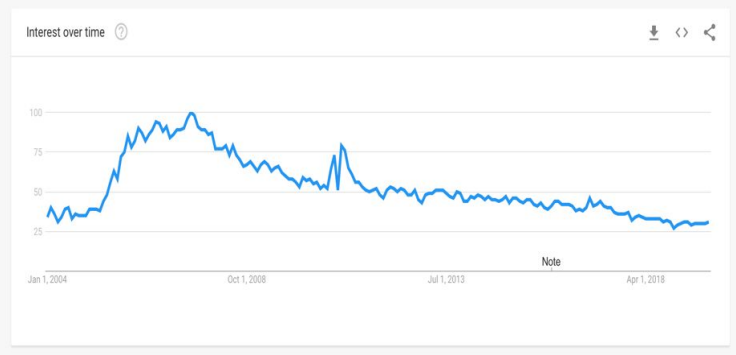
- Created in Japan in the mid 1990's by Yukihiro "Matz" Matsumoto
- It was designed for programmer productivity with the idea that programming should be fun!
- The first public release was Ruby 0.95 that was announced on December 21, 1995 following several updates throughout the following years up until the latest release (2.6.5) on October 1, 2019.
- Ruby has a very simple syntax, in many ways similar to Perl and Python.
- It is a dynamic and object-oriented scripting language.

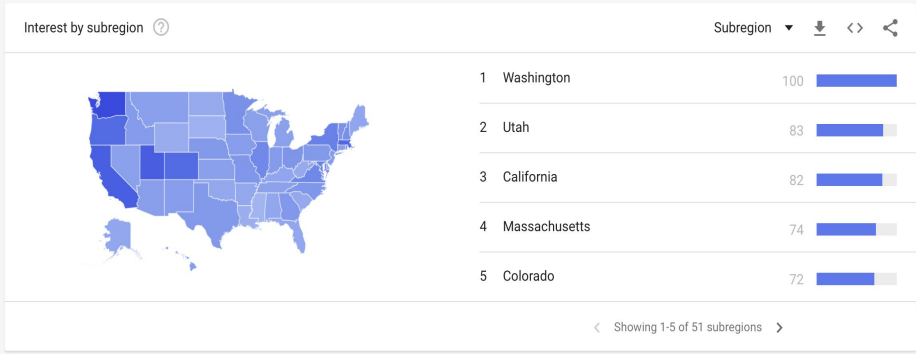
Google Trends: Ruby

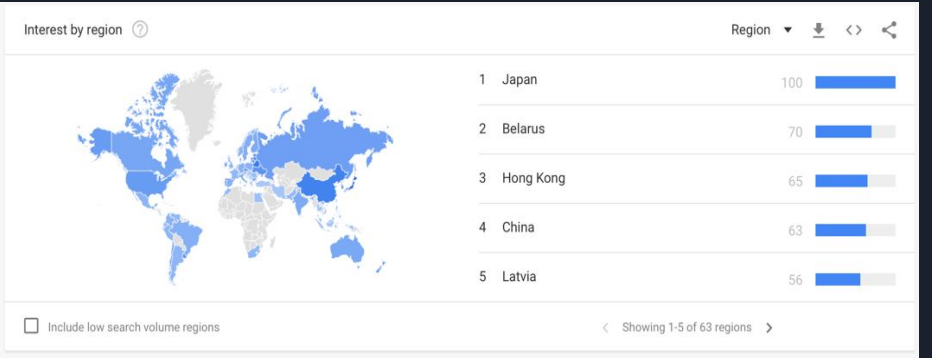
United States



Global

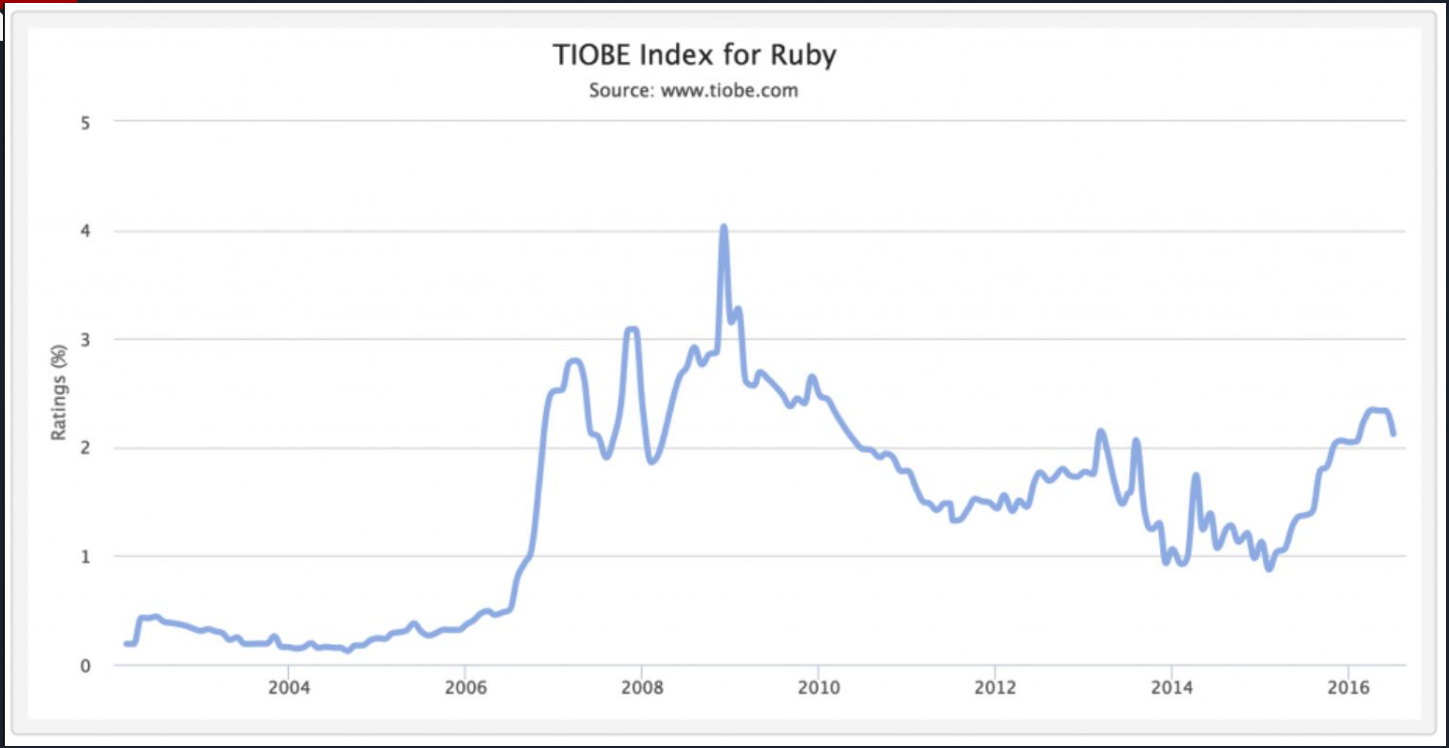






New York is #7 in the country and the United States is #14 in the world

TIOBE: Ruby



Highest: #8 in May 2016

Lowest: #39 in January 2002

Range of Use

- Used in the production of multiple websites
  - Airbnb, Hulu, Kickstarter, GitHub, Fiverr, etc.
- Utilized by many different companies
  - Twitter, Groupon, SoundCloud, Shopify, etc.
- Can be used in game programming
- Primarily useful in web applications
- One of the most sought after languages by employers

Features of Ruby

- Open source
- Object-oriented
- Case-sensitive
- Scalable and easy to maintain
- Clean and easy syntax

Features exclusive to Ruby

- Dynamic typing
  - Code build during runtime
- Duck typing
  - Object’s suitability is determined by the presence of certain methods/properties
- Mixins
  - Dynamic addition of new elements at runtime
  - Similar to inheritance, but more flexible
- Easy database connections with *Ruby DBI*
- Can be embedded into HTML (*eRuby*)

Ruby Source Code

- Code Demo

  https://repl.it/repls/HotpinkFixedBracket

- Repl.it Online Ruby Compiler

main.rb saved

```ruby
# Print "fibonacci Program!" on new line
puts 'fibonacci Program in Ruby!'

def fibonacci(number)
  if number < 2
    number
  else
    # call fibonacci recursively
    fibonacci(number - 1) + fibonacci(number - 2)
  end
end

# puts the string to stdout
print 'Enter the number:'
# read from stdin
fib_num = gets.to_i
# call fibonacci function by passing parameter as a number
puts "fibonacci number is #{fibonacci(fib_num)}"

```

Ruby Code Result

```
ruby 2.5.5p157 (2019-03-15 revision 67260) [x86_64-linux]
fibonacci Program in Ruby!
Enter the number: 6
fibonacci number is 8
=> nil
```

Conclusion

- Ruby is a very hands-on language that can be learned easily
- Ruby is versatile and is utilized by many large companies
- Very simple to learn and can be converted to other languages
- Ruby makes programming Fun!

Sources

- https://www.coursereport.com/blog/ruby-vs-python-choosing-your-first-programming-language
- https://railsware.com/blog/famous-web-apps-built-with-ruby-on-rails/
- https://yehudakatz.com/2009/08/24/my-10-favorite-things-about-the-ruby-language
- https://www.javatpoint.com/ruby-features
- https://www.tutorialspoint.com/ruby/ruby_overview.htm
- https://ieeexplore.ieee.org/document/4736789
- https://spectrum.ieee.org/view-from-the-valley/at-work/tech-careers/what-programming-languages-engineers-and-employers-loveand-hate

Possible IDEs: E.g. VisualStudio, NetBeans, RubyMine
Installation instructions: https://www.ruby-lang.org/en/documentation/installation/