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# RUBY

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A PREPRINT

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April 6, 2020

## ABSTRACT

### 1 Introduction

### 2 History

**Why was Ruby designed?** It was designed based on the idea that coding should be fun for programmers to do in Japan. Ruby was originally designed for beginner programmers to code games. The popularity spread as the code is easy to read as it reads like English and it is a very high-level language which allows for beginners to quickly create something from scratch in less lines of code.

**Who designed it?** Yukihiro "Matz" Matsumoto in the 1990s

**What is Ruby's current status?** Currently, Ruby is growing in popularity. A Ruby framework, Ruby on Rails, created by David Hansson, has been created for Ruby programmers to be eased into computer science.

### 3 Control Structures

Ruby's selection statements, in general, are similar to what one sees in other high-level, object-oriented languages. It supports the standard if/else conditional statement, switch statements, variable assignment, return statements, and keywords such as *break* [10]. However, Ruby also supports an interesting assignment statement. The following code is from Stan Lo in Statements vs Expressions in Ruby:

```
a = class Foo; end
puts(a) #=> nil

b = a = 10
puts(b) #=> 10

c = if true
100
end
puts(c) #=> 100
```

[6] Here, we can see that one can assign values to multiple variables in the same statement, such as  $x = y = z$ . In this situation, Ruby has left associativity, so  $y = z$  would be evaluated first, followed by  $x = y$ .

This language also supports many kinds of iteration techniques. Such techniques include the standard for and while loops, in addition to iterators, until loops, do/while loops, and recursion. All of these can be cut short using a break statement. Ruby also supports a simple loop, denoted:

```
loop do
# do something
end
```

[10] Using this form of loop will cause a program to run indefinitely, until the user manually stops it by hitting Ctrl + c.

In summary, Ruby functions as a common high-level language, and its capabilities in control flow are no exception. It supports all standard conditional and iteration techniques, in addition to some of its own unique qualities.

## 4 Data Types

## 5 Subprograms

## 6 Summary

[5] [11] [4] [7] [6] [10] [9] [8] [2] [1] [3]

## References

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