



**Ruby**

**1995**

A dynamic interpreted high-level  
programming language with focus on  
productivity.

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CMPT 383  
Summer 2022  
SFU Surrey

What was the situation in 1995?

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# 1995: First Appearance

amazon



ebay

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# 1995: Most Popular Console Video Game

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# 1995: Highest-Grossing Movie

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an Fo

# 1995: Most Popular Song

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ngsta's Paradise,  
Coolio

# 1995 Facts



**Jean Chretien:** Canadian PM



**Bill Clinton:** American President

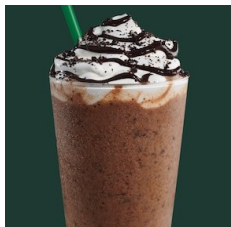
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**Dua Lipa** and **Post Malone** bo

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**DVDs** were invented



**Starbucks** introduced the Frappuccino

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First release was version 0.95 in a Japan group in December 1995.



# Ruby's Original Designer

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Yukihiro Matsumoto

# Ruby Can Get You a Job!



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**KICKSTARTER**

# What's Ruby **Good** For?

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is the “killer app” for Ruby.  
quickly create websites.

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Ruby is also a good a good choice for  
things that you might use Python for, such  
as scripting or text processing.

# What's Ruby **Not** so Good For?

- Ruby is generally **not** as efficient as C, C++, Rust, so it is **not** the best choice when performance is the primary concern.
- Ruby does **not** provide checks, so it is easy to release code that aren't discovered until run-time
- Ruby has many powerful features that can lead to clever code that can cause readability problems.

Measuring the performance of different programming languages is surprisingly difficult to do fairly. Check out [the Computer Language Benchmarks Game](#)

Ruby was designed to improve the programmers experience, even at the cost of lower run-time performance and correctness.

# Major Features of Ruby

## Everything is an object

Much more object-oriented than languages like C++ or Java or Python

## Interpreted

Easy to evaluate individual <https://eduassistpro.github.io/>

## Memory-safe and garbage-collected

No dangling pointers, no manual memory

## Flexible: Easy to Alter

Can add to and change many existing features

## Errors

Exception handling system

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**Monkey patching** is when you change the way a program works at run-time. This is a possible technique in Ruby, with pros and cons.

# Major Features of Ruby

## Types

Dynamically typed, i.e. types checked at run-time

New types can be created with classes

Existing types can be extended

Symbols

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## Blocks

A practical way to deal with higher-order functions

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## Text Processing

Built-in regular expressions

## Extensive Standard Library

Many useful functions ready to use

Ruby is a feature-rich language, often with more than one way to do simple things.

# Major Features **Not** in Ruby

## Features **not** part of Ruby

**No** type declarations

**No** pointers

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# Hello, World!

```
# hello_world.rb
```

```
puts 'Hello, World!'
```

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```
$ ruby hello_world.rb  
Hello, world!
```

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# Hello, World!

To launch Ruby interpreter:  
**\$ irb**

```
irb(main):001:0> puts "Hello, world!"  
Hello, world!  
=> nil
```

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```
>> puts "Hello, world!"  
Hello, world!  
=> nil
```

We'll usually use a simplified prompt.