Ruby

1995

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

CMPT 383
Summer 2022
SFU Surrey

What was going on in 1995?

1995: First Appearance

1995: Most Popular Console Video Game

DragonQuest VI

Nintendo Super Famicom

1995: Highest-Grossing Movie

Batman Forever

1995: Most Popular Song

Gangsta's Paradise, Coolio

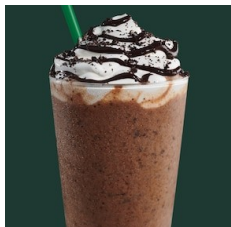# 1995 Facts

Jean Chretien: Canadian PM

Bill Clinton: American President

Dua Lipa and **Post Malone** born

DVDs were invented

Starbucks introduced the Frappuccino
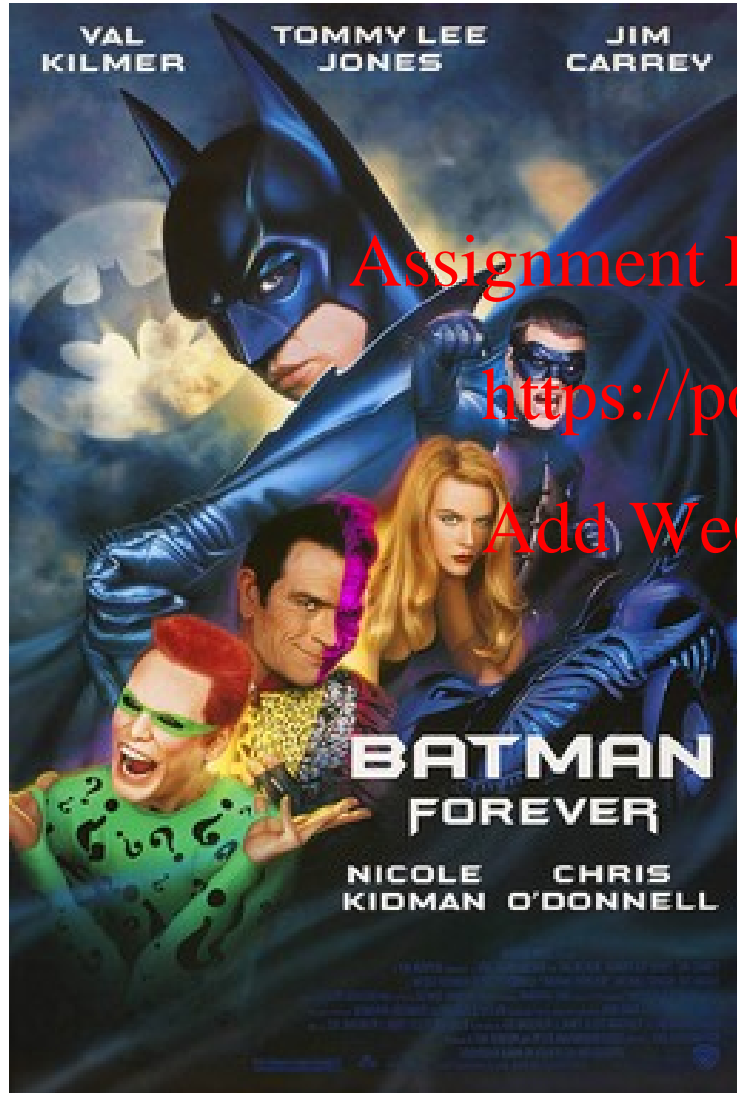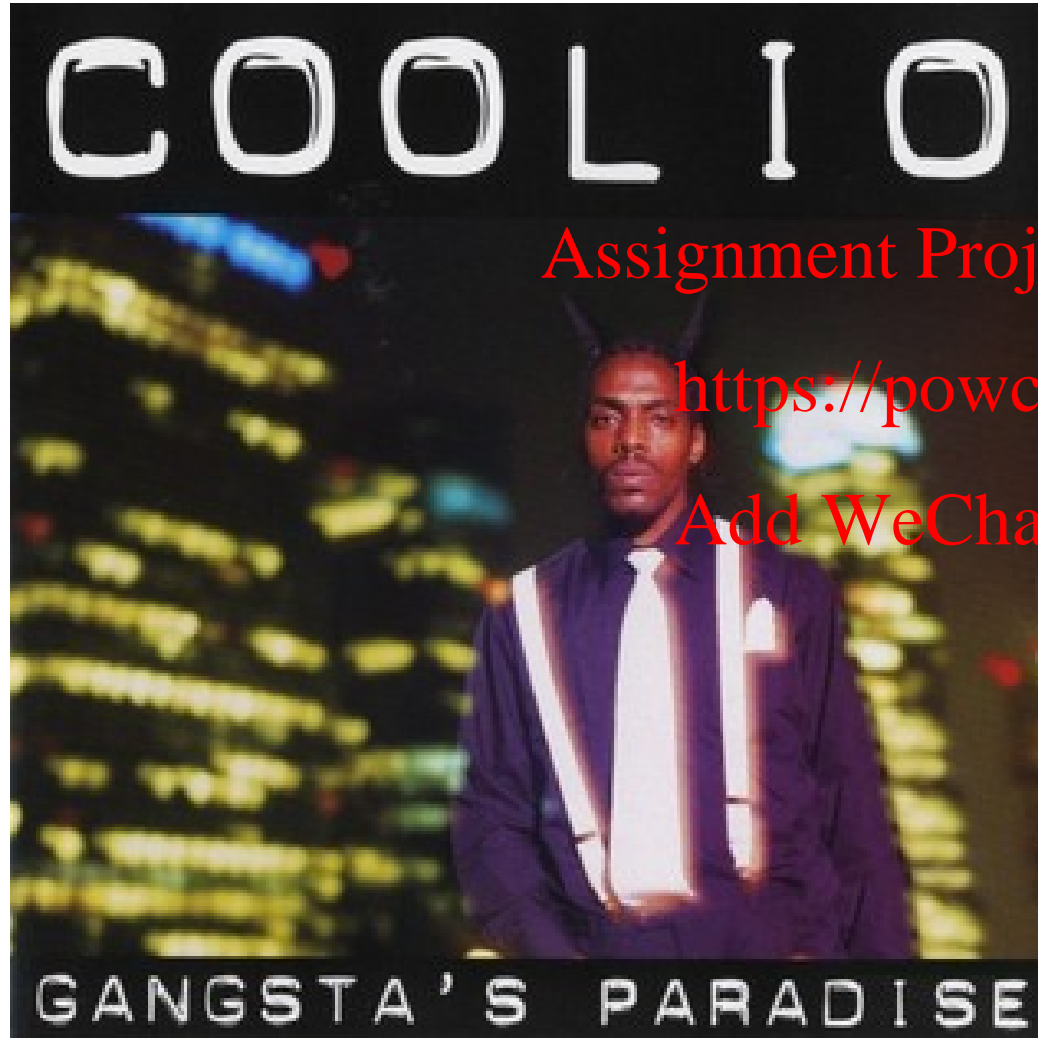
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First release was version 0.95 in a Japanese newsgroup in December 1995.

Ruby's Original Designer

Yukihiro Matsumoto

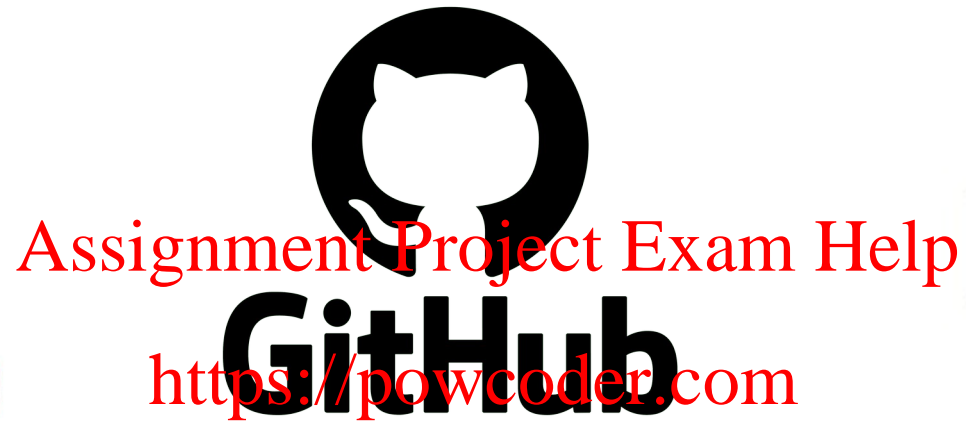# Ruby Can Get You a Job!

What's Ruby Good For?

Ruby on Rails is the "killer app" for Ruby. It lets you quickly create websites.

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 compile-time checks, so it is easy to release code with errors 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 expressions

Memory-safe and garbage-collected

No dangling pointers, no manual memory deletion

Flexible: Easy to Alter

Can add to and change many existing features

Errors

Exception handling system

Monkey patching is when you change the how a program works a 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

Blocks

A practical way to deal with higher-order functions

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

Hello, World!

```
# hello_world.rb

puts 'Hello, world!'
```

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

Hello, World!

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

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