

Advanced Ruby 3 Day

Day 3

Schedule

- ✦ Review `class_attr_accessor` exercise
- ✦ Ruby DSLs
- ✦ Tools and Instrumentation
- ✦ Concurrency / Multithreading
- ✦ Ruby VMs
- ✦ Building Gems
- ✦ Code Retreat Practice Sessions

Review

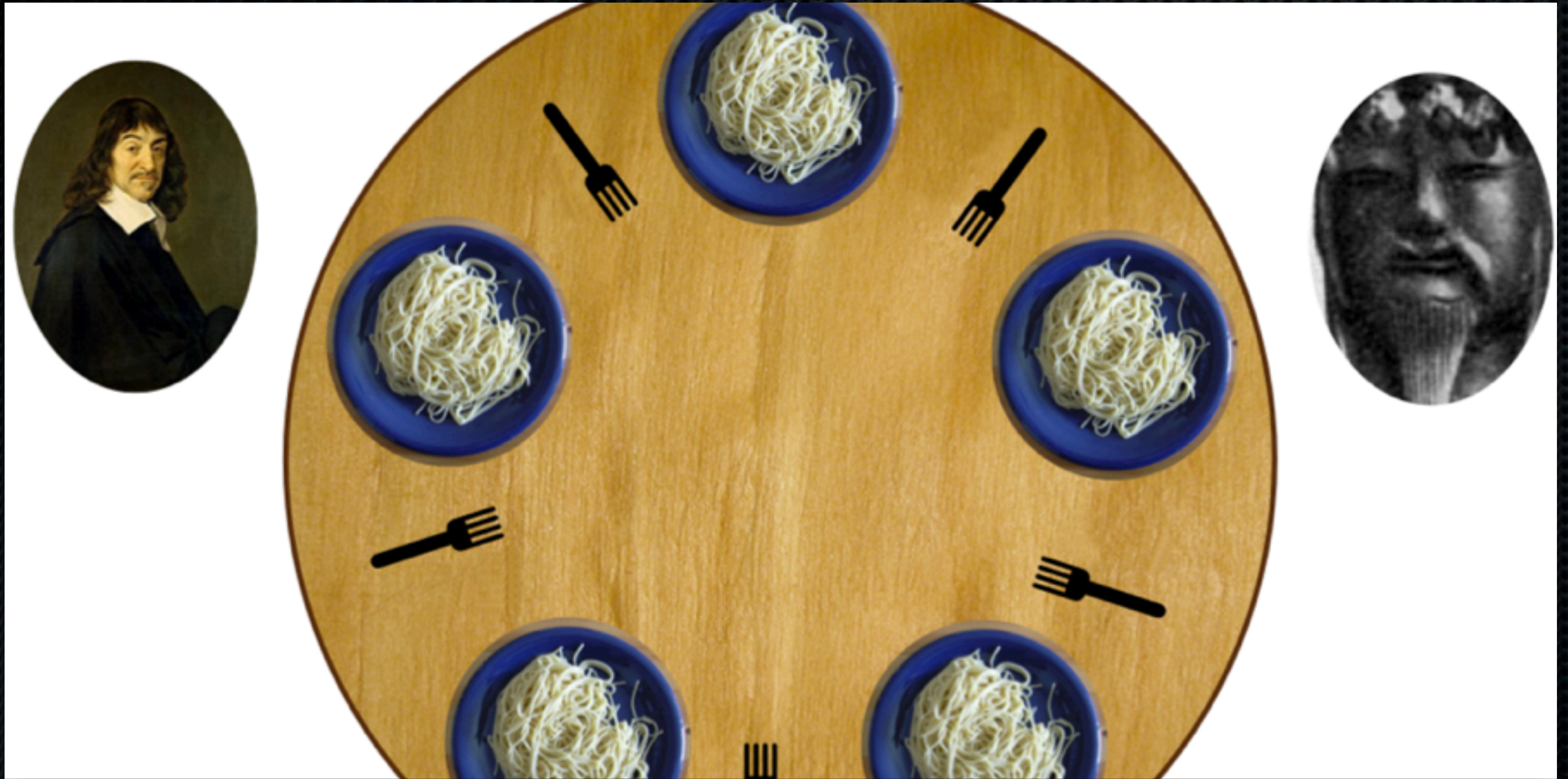
- ✧ `class_attr_accessor`
 - ✧ Allows Ruby classes to create Singleton reader and writer methods for class variables in 1 line

Ruby DSLs / REPLs

- Game DSL (Loosely based on Pie)
 - TDD a Game DSL that:
 - Allows a user to setup locations and paths between locations
 - Must have a start location and an end location
 - Game Play:
 - Users start at the start location
 - Can pick a path to a new location
 - At each location users can see:
 - Where they are (location name)
 - Where they can go (direction: location name)
 - Game ends at end location

Instrumentation

- ✦ Benchmarking
- ✦ Stackprof
- ✦ Code Climate
- ✦ Pry Bindings
- ✦ CI Services



Concurrency

Dining Philosophers Problem

Solutions

- ✦ Mutex (busy waiting)
- ✦ Semaphore (numbering)
- ✦ Arbitrator
- ✦ Message passing (actors / reactors)

Ruby (MRI)

- ✦ Threads / Mutex
- ✦ Fibers
- ✦ GIL - Single Threaded
- ✦ Multiple Ruby Processes

Ruby VMs

- ✦ JRuby
- ✦ Rubinius
- ✦ MRI / YARV
- ✦ MacRuby

Building Gems!

- ✦ rake
- ✦ jeweler
- ✦ hoe
- ✦ Bundler
- ✦ etc...