

Ruby Profiling

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What is profiling

Types of profiling

- Memory profiling
 - Memory usage
 - Memory leaks
- CPU Profiling
 - Flat profiling
 - Call graph profiling

Agenda

- C programs
 - Intro to debugging leaks, CPU profiling
- Ruby code
 - Tracepoint
 - ObjectSpace
- Stackprof – CPU profiling
- Rbkit – Memory profiling

Memory leaks in C

malloc

Exercise

Fix the leak

Time taken by functions

Exercise

Run valgrind on ruby program

Ruby profiling support

- Trace points
 - Plugs into VM
 - :line
 - :class, :end
 - :call, :return
- Ruby objects
 - Object created
 - Object GC'ed

ObjectSpace
Dump an object

Exercise

Dump all objects which ruby has
created

Tracepoints
Track execution events

Exercise

Print class and method names

Stackprof
C-level hooks (rb_profile_frames)

Sample Rails App
Lets get stackprof working

Rbkit
Memory profiling
Uses C-hooks

Sample Rails App
Lets get Rbkit working

?

Rbkit pitch :D

- Rbkit Credits
 - Hemant @gnufied
 - Emil @emilsoman
 - Kashyap @kgrz
 - Amitava @amitava_b