

budapest.rb

JRuby on AppEngine

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Miről lesz szó?

JVM

Szkriptnyelvek a JVM-en

JRuby

Rack

Google AppEngine/Java

Tapasztalatok

JVM

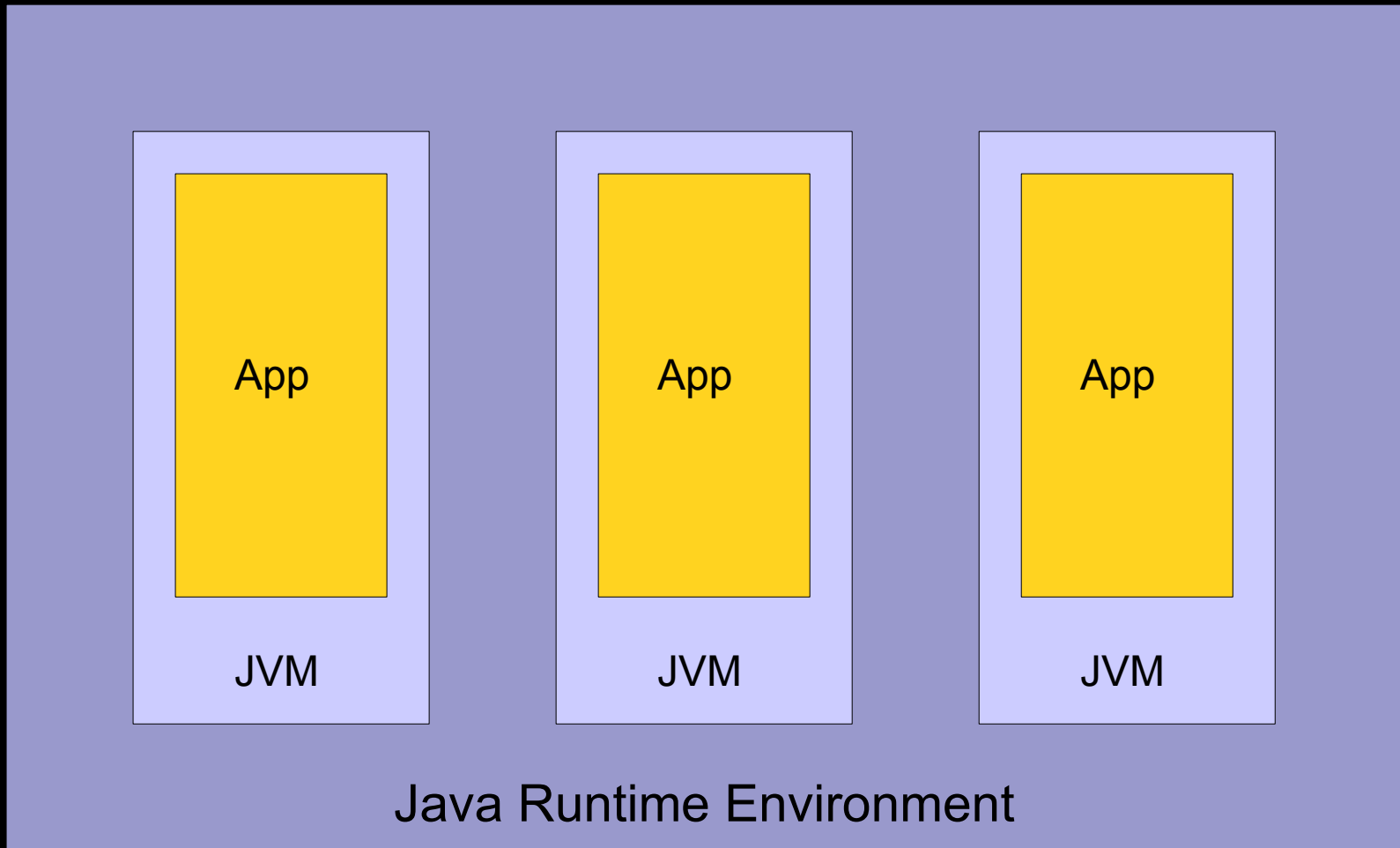
Java nyelv != Java Platform

Platformfüggetlenség

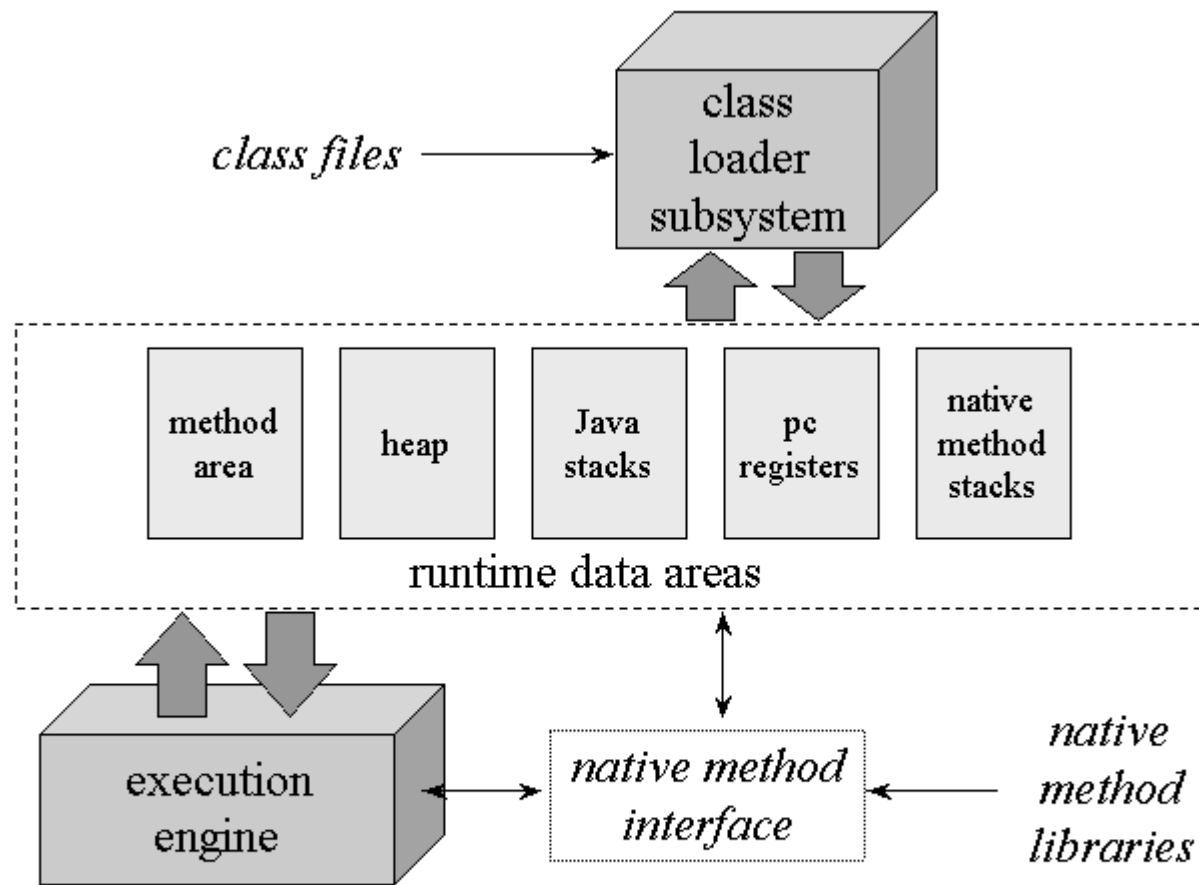
Gazdag Class rendszer

Nyílt forrás

JVM



JVM



JVM

Finomhangolható

Kiterjeszhető

Stabil

Adminisztrációs interfészek

Biztonságos kódmegosztás

Szkriptnyelvek a JVM-en

Python (Jython - <http://www.jython.org>)

Ruby (JRuby - <http://www.jruby.org>)

Lisp (Clojure - <http://clojure.org>)

JavaScript (Rhino -
<http://www.mozilla.org/rhino/>)

PHP (IBM - P8 / Caucho - Quercus)

Scala (<http://www.scala-lang.org>)

Es még sok minden más (de tényleg)

Szkriptnyelvek a JVM-en

Hogyan?

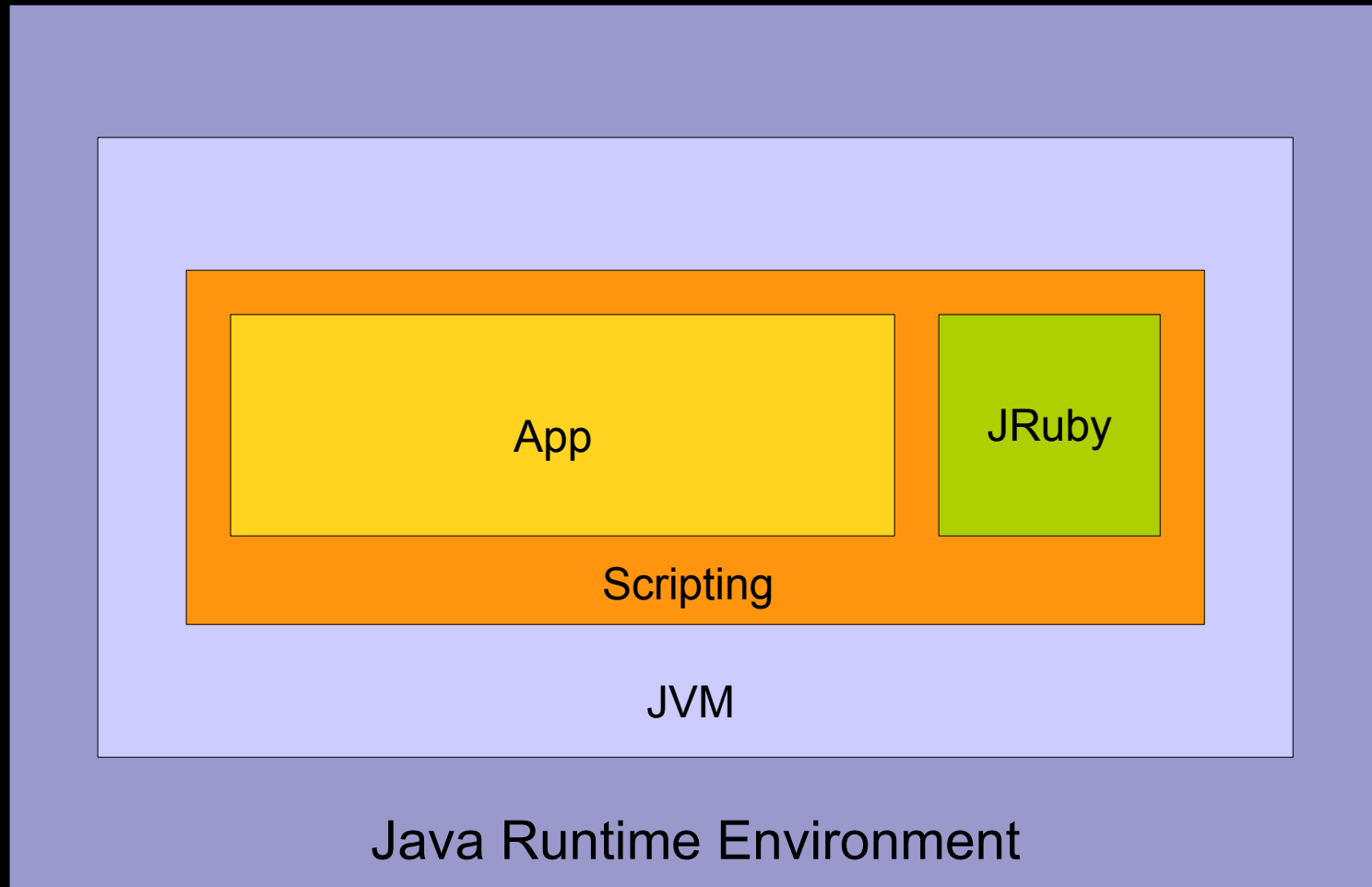
Szkriptnyelvek a JVM-en

JSR-223

```
import javax.script.*
```

```
http://scripting.dev.java.net/  
http://developers.sun.com/scripting/
```

Szkriptnyelvek a JVM-en



Szkriptnyelvek a JVM-en

Miért jó ez?

Szkriptnyelvek a JVM-en

Rapid fejlesztési lehetőségek

Speciális igények, pl. ligo ;)

Integráció

JRuby

~~Ruby for Java~~
Ruby in Java

JRuby

Natív szálak

Szemétgyűjtő

Beágyazhatóság

Letiltott fork

C kiterjesztések nem igazán
használhatók

Rack

Rails, Merb, Sinatra, Camping,
Ramaze ...

CGI, FCGI, Mongrel, Thin,
Webrick, Litespeed ...

Rack

```
class HelloWorld
  def call(env)
    [200, {"Content-Type" => "text/plain"},
     ["Hello world!"]]
  end
end
```

Rack

Egyszerű Ruby API, ami a HTTP-t modellezi

“Szabványos” interfész a framework-ök és a handler-ek között

Interfész middleware-ek közbeékeléséhez

Rack

WSGI for Ruby

<http://chneukirchen.org/talks/#introducingrack>

<http://wiki.github.com/rack/rack>

JRuby - Rack

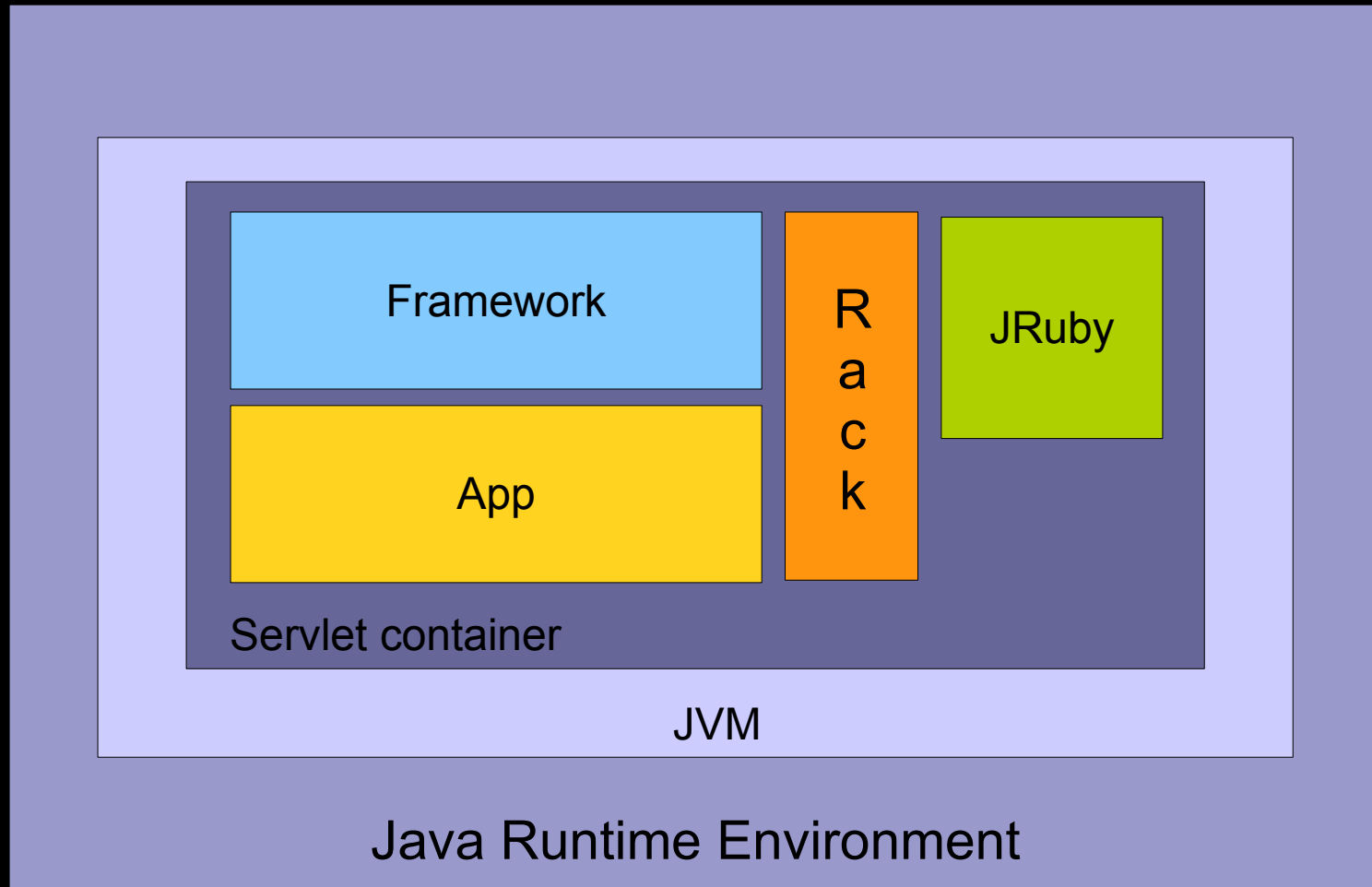
WSGI for JRuby

Rack + Java Servlet Containerek
Tomcat, Glassfish, Jetty ...

```
<context-param>
  <param-name>rackup</param-name>
  <param-value>
    require 'rubygems'
    require 'app'
    set :environment, :production
    set :run, false
    run Sinatra::Application
  </param-value>
</context-param>
<filter>
  <filter-name>RackFilter</filter-name>
  <filter-class>org.jruby.rack.RackFilter</filter-class>
</filter>
<filter-mapping>
  <filter-name>RackFilter</filter-name>
  <url-pattern>/*</url-pattern>
</filter-mapping>
<listener>
  <listener-class>
org.jruby.rack.RackServletContextListener
  </listener-class>
</listener>
```

```
<web-app xmlns="http://java.sun.com/xml/ns/javaee"
version="2.5">
  <context-param>
    <param-name>public.root</param-name>
    <param-value>/</param-value>
  </context-param>
  <filter>
    <filter-name>RackFilter</filter-name>
    <filter-class>
      org.jruby.rack.RackFilter
    </filter-class>
  </filter>
  <filter-mapping>
    <filter-name>RackFilter</filter-name>
    <url-pattern>/*</url-pattern>
  </filter-mapping>
  <listener>
    <listener-class>
org.jruby.rack.merb.MerbServletContextListener
    </listener-class>
  </listener>
</web-app>
```

JRuby - Rack



Google AppEngine/Java

Mi is ez?

Google AppEngine/Java

App stack

App hoszt

Fejlesztői környezet

Átgondolt API rendszer

Egy csomó szolgáltatás

Ingyen ...

GAE/J – App stack

Automatikus skálázás

Csak az alkalmazást kell megírni

Minden egyéb az API-k felületén történik

Külső API-k URL Fetch-en keresztül

GAE/J – App hoszt

10 app / user

Admin felület

Cron

Kielégítő kvótarendszer

Logok

GAE/J – App hoszt

Version	Default	Live URI	Delete
<input type="radio"/> 5 (deployed 13 days, 21:53:40 ago)	No	http://5.latest.continue-the-story-dev.appspot.com	Delete
<input checked="" type="radio"/> 6 (deployed 13 days, 13:17:13 ago)	Yes	http://6.latest.continue-the-story-dev.appspot.com	Delete

Make Default

Filter Logs ?

Minimum Severity:

Debug

[Options](#)

Tip: Click a log line to show or hide its details.

[Collapse logs](#)

< Prev 20 **1-20** Next 20 >

06-14 05:12AM 45.091 / 200 126ms 362cpu_ms 110api_cpu_ms 0kb continue-the-story.appspot.com Mozilla/5.0 (Windows; U; Windows NT 5.1; hu; 84.1.208.187 - - [14/Jun/2009:05:12:45 -0700] "GET / HTTP/1.1" 200 271 "http://continue-the-story.appspot.com/" "Mozilla/5.0 (Windows; U; Windows NT 5.1; hu; rv:1.9.0.11) Gecko/2009060215 Firefox/3.0.11,gzip(gfe)" "continue-the-story.appspot.com"

I 06-14 05:12AM 45.141

Started request handling: Sun Jun 14 12:12:45 UTC 2009

D 06-14 05:12AM 45.149

Routed to: {"controller"=>"testapp", "action"=>"index"}

I 06-14 05:12AM 45.150

Params: {"controller"=>"testapp", "action"=>"index"}

I 06-14 05:12AM 45.200

{:before_filters_time=>0.0, :after_filters_time=>0.0, :action_time=>0.049, :dispatch_time=>0.059}

I 06-14 05:12AM 45.201

GAE/J – App hozzt

Query the Datastore | [Create an Entity](#)

Kind Query (using [GQL](#))

Story ▾

kinds as of 0:00:00 ago

Story Entities

◀ Prev 20 **1-5** Next 20 ▶

<input type="checkbox"/> ID/Name	slug	title
<input type="checkbox"/> 9	markdown-story	A Story using Markdown
<input type="checkbox"/> 10	what-is-megacycle	What is a Megacycle (MC)?
<input type="checkbox"/> 2003	no-accents-here	Don't use accents!
<input type="checkbox"/> 2004	current-load	How is the current load report in my application's admin console generated?
<input type="checkbox"/> 3001	moni-is-tired	Moni is very tired today

Delete

◀ Prev 20 **1-5** Next 20 ▶

GAE/J - App hozzt

Filter Logs [?](#)
Minimum Severity: [+ Options](#)

Tip: Click a log line to show or hide its details. [+ Expand logs](#)

[< Prev 20](#) **1-20** [Next 20 >](#)

+	06-15 12:53PM	32.436	/story/budapest-rb	200	390ms	674cpu_ms	31api_cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linu	
+	06-15 12:53PM	27.975	/stories	200	403ms	796cpu_ms	97api_cpu_ms	1kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-U	
+	06-15 12:53PM	27.583	/story/add	302	242ms	424cpu_ms	117api_cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686;	
+	06-15 12:52PM	53.912	/story/add	200	112ms	195cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.0.		
+	06-15 12:52PM	36.183	/stories	200	495ms	1147cpu_ms	84api_cpu_ms		1kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686
+	06-15 12:52PM	31.451	/story/moni-is-tired	200	287ms	562cpu_ms	31api_cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Lin	
+	06-15 12:52PM	29.694	/stories	200	478ms	1147cpu_ms	84api_cpu_ms		1kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686
+	06-15 12:52PM	27.611	/story/no-accent-here	200	304ms	619cpu_ms	31api_cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U;	
+	06-15 12:52PM	23.477	/story/current-load	200	653ms	1570cpu_ms	31api_cpu_ms		0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U;
+	06-15 12:52PM	20.897	/stories	200	439ms	1035cpu_ms	84api_cpu_ms		1kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686
+	06-15 12:52PM	18.815	/story/what-is-megacycle	200	272ms	562cpu_ms	31api_cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11;	
+	06-15 12:52PM	12.465	/story/markdown-story	200	417ms	871cpu_ms	31api_cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U;	
+	06-15 12:51PM	32.546	/stories	200	2250ms	5683cpu_ms	84api_cpu_ms		1kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i68
+	06-15 12:51PM	28.047	/favicon.ico	404	275ms	672cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.0		
+	06-15 12:51PM	25.050	/favicon.ico	404	237ms	588cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.0		
+	06-15 12:51PM	24.867	/css/screen.css	200	1ms	0cpu_ms	11kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.0		
+	06-15 12:51PM	24.712	/css/style.css	200	1ms	0cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.0.1		
+	06-15 12:51PM	24.459	/	200	98ms	195cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.0.11) Gecko/2		
+	06-15 12:43PM	15.887	/	200	15750ms	28140cpu_ms	0kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (X11; U; Linux i686; en-US; rv:1.9.0.11		
+	06-09 07:29AM	21.692	/stories	200	1067ms	2102cpu_ms	70api_cpu_ms		1kb	5.latest.continue-the-story-dev.appspot.com	Mozilla/5.0 (Windows; U; Wir

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Legend: Debug (least severe) Info Warning Error Critical (most severe)

GAE/J – Dev környezet

App szerver

Deployment

App verziók

Több fejlesztő

Példakódok

SDK

Pluginek (Eclipse IDE)

GAE/J - API-k / Szolgáltatások

Memcache

Datastore

Mail

Image

Google account

URL Fetch

GAE/J - Datastore

Séma nélküli

Objektum orientált

Kulcs / érték

Univerzális

< Entity (Story (1)) >

Tapasztalatok

Lassú warmup (JRuby + AppEngine)

App cachelés után elfogadható

CPU intenzív

Szinte használhatatlan dev
környezet

Alig van lib az API-khoz

Nincs migráció (bulk loader 404!)

Tapasztalatok

JRuby-AppEngine (alacsony szintű wrapper szinte az összes API-hoz)

Bumble (minimalista lib Datastore-hoz)

Datamapper (JRuby-AppEngine API-val)

Warbler (deployment előkészítéshez)

JRuby - AppEngine

```
post '/story/add' do
  @story = Datastore::Entity.new('Story')
  @story['title'] = params[:title]
  @story['slug'] = params[:slug]
  @story['body'] = Datastore::Text.new( params[:body] )
  Datastore.put(@story)
  redirect '/stories'
end
```

Bumble

```
class Person
  include Bumble
  ds :given_name, :sur_name, :email
  has_many :blogs, Blog, :owner_id
end
```

```
class Blog
  include Bumble
  ds :name, :owner_id, :created_at
  belongs_to :owner, Person
  has_many :posts, :Post, :blog_id, :iorder => :created_at
end
```

```
class Post
  include Bumble
  ds :title, :content, :created_at, :blog_id
  belongs_to :blog, Blog
end
```

Warbler

```
Warbler::Config.new do |config|
  config.dirs = %w(lib views models)
  config.includes = FileList["appengine-web.xml",
"app.rb", "config.ru"]
  config.gems = ['sinatra', 'haml', 'appengine-
apis', 'maruku']
  config.gem_dependencies = true
  config.war_name = "test"
  config.webxml.booter = :rack
  config.webxml.jruby.min.runtimes = 1
  config.webxml.jruby.max.runtimes = 1
  config.webxml.jruby.init.serial = true
  config.java_libs = []
end
```

Komponensek

Appengine account

GAE/J SDK

JRuby 1.3.1

Jruby-Rack

Gemek

GAE/Merb Example Application ;)

<http://github.com/yaanno/gae-merb-example>

Merb flat app

WEB-INF

appengine-web.xml

web.xml

application.rb

config

framework.rb

init.rb

lib

appengine-api-sdk.jar

gems.jar

jruby-complete.jar

jruby-rack.jar

views

index.haml

Köszönöm a figyelmet

Hasznos

<http://www.infoq.com/presentations/nicholson-php-jvm>

<http://www.artima.com/insidejvm/ed2/index.html>

<http://code.google.com/appengine/>

<http://blog.headius.com>

<http://blog.nicksieger.com>

<http://olabini.com/blog/>

<http://isitjruby.com/>

<http://code.google.com/events/io/sessions.html#appengine>