Chapter 1

## OPENSHIFT

## Create an account

Email address
Valid email address

## Password

At least 6 characters

Password confirmation
Enter it again

Have a promo code to enter?
Are you a spam bot?
Type the words that appear below


Get Another Get an audio CAPTCHA Help
recuprou prented by Coogle - help fistt spam ang fix bookst

## Already have an account? Sign in

You'll love Openshift because it has:

- Built.in support for Java, Node.js, Ruby, Python, PHP, Perl and extensible functionality to add other languages.
- Powerful command line cilent tools and a web management console to launch and manage your applications
- Pre-created quickstarts to instantaneously boot your favorite application framework
- A vibrant community forum watched around the clock by an army of developers, evangelists, and OpenShift devotees.
- A wide range of developer resources, including technology specific get started pages, how-to blog posts and videos.

Learn more about OpenShift

## The easy way to install Ruby on Windows

This is a self-contained Windows-based installer that includes the Ruby language, an execution environment, important documentation, and more

Download
Add-ons

## Installation Destination and Optional Tasks



Setup will install Ruby 1.9.3-p484 into the following folder. Clidk Install to continue or dick Browse to use a different one.

Please avoid any folder name that contains spaces (e.g. Program Fles).
C:1Ruby 193
$\square$ Instal Td/Tk supportAdd Ruby executables to your PATH
Associate atb and .rbw fies with this Ruby instalation
TIP: Mouse over the above options for more detailed informabion.

Required free disk space: ~34.8 MB

| <Back | Instal |
| :---: | :---: |

Use Git Bash only
This is the most conservative choice if you are concerned about the stablity of your system. Your PATH will not be modified.

Run Git from the Windows Command Prompt
This option is considered safe and no conficts with other tools are known. Orly Git will be added to your PATH. Use this option if you want to use Git from a Cygwin Prompt (make sare to not have Cygwris Git installed).

Run Git and included Unix tools from the Windows Command Prompt
Both Gt and its accompanying Unix tools will be added to your PATH. Warning: This will override Windows tools like find.exe and sort.exe. Select this option only if you understand the implications.
thtp://msyspt.googlecode:comi


## Welcome to your PHP application on OpenShift

## Deploying code changes

OpenShift uses the Git version control system for your source code, and grants you access to it via the Secure Shell (SSH) protocol. In order to upload and download code to your application you need to give us your public SSH koy. You can upload it within the web console or install the RHC command line tool and run rhi setup to generate and upload your key automatically.

Working in your local Git repository
If you created your application from the command line and uploaded your SSH key, thc will automatically download a copy of that source code repository (Git calls this 'cloning') to your local system.

If you created the application from the web console, you'li need to manually clone the repository to your local system. Copy the application's source code Git URL and then run:

```
$ git clone <git url> <directory_to_create>
# Within your project directory
/ Comnit your changes and push to OpenShift
$ git commit -a -m 'Some commit message'
5 git push
```

- Learn more about deploying and building your application
- See the README file in your local application Git repository for more information on the options for deploying applications.


## Managing your application

Web Console
You can use the OpenShift web console to enable additional capabilities via cartridges, add collaborator access authorizations, designate custom domain aliases, and manage domain memberships.

Command Line Tools
Installing the OpenShift RHC client tools allows you complete control of your cloud environment. Read more on how to manage your application from the command line in our User Guide.

## Development Resources

- Developer Center
- User Guide
- OpenShift forums
- Stack Overflow questions for OpenShift
- IRC channel at \#openshitt on freenode.net
- Git documentation



## OPENSHIFT ONLINE

```
4) Applications
    1 of 3 <o
Available in domain packt
    myphpapp 10
    PHP5.3
    Add Application...
```

Instant App

## (2) Jenkins Server

c।

## Drupal 7

CMS DRUPAL NOT SCALABLE PHP

WordPress 3.x
BLOG CMS NOT SCALABLE

Next steps

| Based On | WordPress 3.x Quickstart $\uparrow$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | A semantic persenal publishing platform write in PHP wh h M MSQL back end, focusing on aesthebcs, web standards, dend usabity. Currencly using version 3.7.1. |  |  |  |
|  | The first time you access the app youll be asked to set a username and password and give your blog a name. Be sure to track security updates from upstream. |  |  |  |
|  | tearnmore |  |  |  |
|  | A Openshift maincained / Does not receve automatic secunry updates |  |  |  |
| Public URL | http:// |  | yblog | -packt.rhcloud.com |
|  | Open5hift will automatically register this domain name for your appleaton You can aisd your own domsin name later: |  |  |  |
| Source Code | git//github.com/openshift/wordpress-ex branch'master |  |  |  |
|  | Your application will start weh an exact copy of the code and configuration provided in this Git repository, Operishift may eopect certain files to exst in certain directories, which may require you to updite your repository after creation. |  |  |  |
| Gears | Small |  |  |  |
|  | Gears are the applicaton containers rurning your code, for most applications, the smatr gear size provides plenty of resources. |  |  |  |
| Cartridges | PHP 5.3 and MySQL 5.1 |  |  |  |
|  | Applications are composed of carvidges - each of which exposes a service or capabilify to your code. Al applicatoons must have a web cartndge. |  |  |  |
| Scaling | No scaling |  | $\pm$ |  |
|  | This application misy require addobnat work to scale. Please see the applicators documercarion for more ieformation |  |  |  |
|  | Openshift automatically routes web requests to your web gear, if you allow your applicaton to scale, well set up a load balancer and allocate more gears to handie tratfic as youneed it. |  |  |  |
|  | Back |  | Create Application +10 | $\bigcirc$ |

Chapter 2



PARTITION definition: (8)



```
    Showing rows 0-1(2 total,Query took 0.0004 sec)
```

SELECT *
LIMIT 0, 30
Show : Start row: 0 Number of rows: 30 Headers every 100 rows

| Options |  |
| :--- | :--- |
| username | email |
| author | author@grantshipley.com |
| OpenShift Help | openshift@redhat.com |

(2) lampstack-packt.rhcloud.com/hellodb.php

| Username | Email Address |
| :--- | :--- |
| author | author@grantshipley.com |
| OpenShift Help | openshift@redhat.com |

## Add swap data

Statistics
Times memory limit reached
Swappiness
70



App status
THAWED
Network Class ID
69288
Tasks (pid)

- 105666105803105805105806105807105808105810105811105812105813105814105841105842105843 105844105933105935105936105937135405135410135412141915155331155340155400160287160908 161825164339164340164341164342164343164345493113493126493127
Name
daily
hourly
minutely
monthly
weekly
README.cron

Thu Jan 16 20:05:17 EST 2014
Thu Jan 16 20:06:12 EST 2014
Thu Jan 16 20:07:08 EST 2014
Thu Jan 16 20:08:12 EST 2014

## Chapter 3

$$
\leftrightarrow \Rightarrow \text { lampstack-packt.rhcloud.com/hellodb.php } \because
$$

## Not Found

The requested URL /hellodb.php was not found on this server.

Terminal

```
gshipley@author-workstation ~ $ rhc ssh lampstack
Connecting to 52d5d7c05973ca5f33000015@lampstack-packt.rhcloud.com
*********************************************************************
You are accessing a service that is for use only by authorized users.
If you do not have authorization, discontinue use at once.
Any use of the services is subject to the applicable terms of the
agreement which can be found at:
https://www.openshift.com/legal
*********************************************************************
Welcome to OpenShift shell
This shell will assist you in managing OpenShift applications.
!!! IMPORTANT !!! IMPORTANT !!! IMPORTANT !!!
Shell access is quite powerful and it is possible for you to
accidentally damage your application. Proceed with care!
If worse comes to worst, destroy your application with "rhc app delete"
and recreate it
!!! IMPORTANT !!! IMPORTANT !!! IMPORTANT !!!
Type "help" for more info.
*** This gear has been temporarily unidled. To keep it active, access
*** your app @ http://lampstack-packt.rhcloud.com/
[lampstack-packt.rhcloud.com 52d5d7c05973ca5f33000015]\> -
```


## Terminal

```
[lampstack-packt.rhcloud.com 52d5d7c05973ca5f33000015]\> oo-cgroup-read all
cgroup.procs
cpu.cfs_period_us
cpu.cfs quota us
cpu.rt_period_us
cpu.rt_runtime_us
cpu.shares
cpu.stat
cpuacct.stat
cpuacct.usage
cpuacct.usage_percpu
freezer.state
memory.failcnt
memory.limit_in_bytes
memory.max_usage_in_bytes
memory.memsw.failcnt
memory.memsw.limit in bytes
memory.memsw.max_usage_in_bytes
memory.memsw.usage_in_bytes
memory.move_charge_at_immigrate
memory.oom_control
memory.soft_limit_in_bytes
memory.stat
memory.swappiness
memory.usage_in_bytes
memory.use_hierarchy
net_cls.clāssid
notīfy_on_release
tasks
[lampstack-packt.rhcloud.com 52d5d7c05973ca5f33000015]\> 
```

```
[lampstack-packt.rhcloud.com 52d5d7c05973ca5f33000015]\> env | grep OPENSHIFT
OPENSHIFT SECRET TOKEN=zHpTeHvA6ZnwkSafswIkMcuoXRHAhdnn-a0oXQwlrwmzHeDQeZtxFFEk8-IH0xCmnTUNJiuJbXJZM44HGM8 wJgzhJt4AymJWv5UC
oke7Zkxzv\overline{bVr_IgE\overline{dg95Wgyq6gF}}\mathbf{F}/\mp@code{L}
OPENSHIFT_PH\overline{P}_IDENT=redhat:php:5.3:0.0.10
OPENSHIFT_GEA\overline{R_MEMORY_MB=512}
OPENSHIFT_MYSQL_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/mysql/
OPENSHIFT DEPLOYMENT TYPE=git
OPENSHIFT PHP LOG DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/php//logs/
OPENSHIFT DEPLOYMENTS DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/app-deployments/
OPENSHIFT 'METRICS DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/metrics/
OPENSHIFT TMP DIR=/tmp/
OPENSHIFT_TMYS\overline{LIR=/tmp/ NB_PORT=3306}
OPENSHIFT_REPO DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/app-root/runtime/repo/
OPENSHIFT_HOMEDIR=/var/lib/openshift/52d5d7c05973ca5f33000015/
OPENSHIFT_GEAR NAME=lampstack
OPENSHIFT_PHPMȲADMIN_IP=127.7.84.3
OPENSHIFT-MYSQL DB HO
OPENSHIFT_PYPI_MIR\overline{ROR_URL=http://mirrorl.ops.rhcloud.com/mirror/python/web/simple}
OPENSHIFT_CRON_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/cron/
OPENSHIFT_MYSQL_ DB PASSWORD=JerElgadNgFP
OPENSHIFT_APP_SSH_\overline{PUBLIC_KEY=/var/lib/openshift/52d5d7c05973ca5f33000015/.openshift_ssh/id_rsa.pub}
OPENSHIFT CLOUD DOMAIN=rhcloud.com
OPENSHIFT MYSQL IDENT=redhat:mysql:5.1:0.2.7
OPENSHIFT }\mp@subsup{}{}{-}\mathrm{ PHPMYA
OPENSHIFT BUILD DEPENDENCIES DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/app-root/runtime/build-dependencies/
OPENSHIFT METRICS PORT=8080
OPENSHIFT_MYSQL_D\overline{B}_USERNAME=adminRapRWMM
OPENSHIFT_PHP PATH_ELEMENT=/var/lib/openshift/52d5d7c05973ca5f33000015/php/phplib/pear/pear
OPENSHIFT-MYS\overline{QL_DB_SOCKET=/var/lib/openshift/52d5d7c05973ca5f33000015/mysql//socket/mysql.sock}
OPENSHIFT_METRICS_LOG_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/metrics//logs/
OPENSHIFT LAMPSTACK DEBUG=1
OPENSHIFT PHP DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/php/
OPENSHIFT MYSQ̄L DB URL=mysql://adminRapRWMM:JerElgadNgFP@127.7.84.2:3306/
OPENSHIFT }\mp@subsup{}{-}{-PHPMYADMINN_LOG_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/phpmyadmin//logs/
OPENSHIFT_PHPMYADMIN_LOG_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/phpmyadmin_lol
OPENSHIFT_APP DNS=lampstack-packt.rhcloud.com
OPENSHIFT_PRIMARY_CARTRIDGE_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/php/
OPENSHIFT_GEAR_DNS=lampstack-packt.rhcloud.com
OPENSHIFT CRON IDENT=redhat:cron:1.4:0.0.9
OPENSHIFT ' CART\overline{RIDGE SDK BASH=/usr/lib/openshift/cartridge sdk/bash/sdk}
OPENSHIFT 'APP SSH K\overline{E}Y=/\overline{var/lib/openshift/52d5d7c05973ca5f}\overline{3}3000015/.openshift ssh/id rsa
OPENSHIFT_LAMPSTACK DEBUG LEVEL=DEBUG
OPENSHIFT_PHP_PORT=\overline{8}080
OPENSHIFT_DEPLOYMENT_BRANCH=master
OPENSHIFT_PHPMYADMIN_IDENT=redhat:phpmyadmin:4:0.0.7
OPENSHIFT_PHP_VERSION=5.3
OPENSHIFT_DEPENDENCIES_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/app-root/runtime/dependencies/
OPENSHIFT ' KEEP DEPLOYMENTS=1
OPENSHIFT APP NAME=lampstack
OPENSHIFT ' LAMPSTACK LOGLEVEL=INFO
OPENSHIFT METRICS I I }=127.7.84.4
OPENSHIFT_MYSQL_D\overline{B}_LOG_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/mysql//log/
OPENSHIFT_DATA_DIR=/var/lib/openshift/52d5d7c05973ca5f33000015/app-root/data/
OPENSHIFT_NAMESPACE=packt
OPENSHIFT AUTO DEPLOY=true
OPENSHIFT }\mp@subsup{}{-}{-}\mp@subsup{\mathrm{ GEAR - UUID=52d5d7c05973ca5f33000015}}{}{-
OPENSHIFT 'METRİCS IDENT=redhat:metrics:0.1:0.0.5
OPENSHIFT_BROKER \overline{HOST=openshift.redhat.com}
OPENSHIFT_APP_UU\overline{I}D=52d5d7c05973ca5f33000015
OPENSHIFT_PHPMYADMIN_PORT=8080
OPENSHIFT_UMASK=077
OPENSHIFT_CARTRIDGE SDK_RUBY=/usr/lib/openshift/cartridge_sdk/ruby/sdk.rb
OPENSHIFT PHP IP=127.7.84.1
[lampstac\overline{k}-pa\overline{c}kt.rhcloud.com 52d5d7c05973ca5f33000015]\>
```

Chapter 4

## Eclipse Downloads

## Packages Developer Builds

## Eclipse Standard 4.3.1, 197 MB

Downloaded 4,035,431 Times Other Downloads
The Eclipse Platform, and all the tools needed to develop and debug it: Java and Plug-in Development Tooling, Git and CVS...


Eclipse IDE for Java EE Developers, 245 MB
Linux 32 Bit
Downloaded 2,082,137 Times
Linux 64 Bit
Tools for Java developers creating Java EE and Web applications, including a Java IDE, tools for Java EE, JPA, JSF, Mylyn...

Eclipse IDE for Java Developers, 150 MB
Downloaded 931,346 Times
The essential tools for any Java developer, including a Java IDE, a CVS client, Git client, XML Editor, Mylyn, Maven integration...



## Workspace Launcher

## Select a workspace

Eclipse stores your projects in a folder called a workspace.
Choose a workspace folder to use for this session.

Workspace: /home/gshipley/workspace|Use this as the default and do not ask again






| New OpenShift Application |
| :--- |
| Import an existing OpenShift application |
| Configure the cloning settings by specifying the |
| clone destination if you create a new project，and the |
| git remote name if you＇re using an existing project． |
| Cloning settings |
| Use default clone destination |
| Git Clone Destination：／home／gshipley／code／eclipse |
| \％Use default remote name |
| Remote name：$\quad$ OPENSHIFT |
| Make sure that you have SSH keys added to your OpenShift account |
| author＠grantshipley．com via SSH Keys wizard and that the private keys are listed in |
| SSH2 Preferences |

Project Explorer $\mathfrak{\nwarrow}$

$\square$ Q lampstack［lampstack master］
$\pm)_{i}$ libs
$\pm$－${ }_{\square}$ misc
－$]_{\text {tiph }}$ php
暯 health＿check．php
䀫 hellodb．php
पût index．php
屄 deplist．txt
囦 README．md

## New or existing OpenShift Application

Create a new OpenShift Application.

OPENSHIFT


```
Advanced >>
```

< Back Next > Cancel $\quad$ Finish


$\pm$ Deployment Descriptor: javasample
$\pm$ JJX-WS Web Services
$\pm$ 显 Java Resources
${ }^{\dagger}$ E JavaScript Resources
$\dagger$ - Deployed Resources
[asi pom.xml
README.md
$+{ }_{8} \times 10$

+ Btarget
$\pm$ 亿 webapps
$\pm$ lampstack [lampstack master]




## Project Explorer $\mathfrak{¿}$


$\square \frac{M J J}{\|-0}>$ javasample［javasample master］
$\pm$ Deployment Descriptor：javasample
$\oplus \mathbb{Z}$ JAX－WS Web Services
$\ddagger$ 䡒 Java Resources
${ }^{+}$렬 JavaScript Resources
$\oplus \complement_{\square}$ Deployed Resources
（ $\mathbb{4}$ ）pom．xml
README．md
$\square{ }_{-6} \mathrm{mrc}$
－${ }^{2 \pi}$ 20 main
＋$\overbrace{\text { tijava }}$
$\pm{ }_{\square} \overbrace{\square}$ resources
－ Enf $^{6}$ webapp
$\pm$ images
吡 index．html
沘 snoop．jsp
$\pm Z_{\text {WEB－INF }}$

## Commit Changes to Git Repository

GIT "

| Commit message |
| :--- |
| Adding a new source file that will greet the user and display the   <br> current system date and time.   |

Author: gshipley [author@grantshipley.com](mailto:author@grantshipley.com)
Committer: gshipley [author@grantshipley.com](mailto:author@grantshipley.com)

## Files (1/2)

type filter text

| Status | Path |
| :---: | :---: |
| $\square \mathrm{Y}_{\square}$ | .settings/.jsdtscope |
| (2) ] | src/main/webapp/hello.jsp |

Commit and Push Cancel Commit

|  | Shift Explorer \% Palette ${ }_{4}$ Git Staging $\approx$ |  |  |
| :---: | :---: | :---: | :---: |
| 0 javasample |  |  |  |
| Unstaged Changes (1) | Commit Message |  |  |
| ® 8 . jsdtscope - .setting | ${ }^{\text {Addded a }}$ : after the date/time is statement. $\mid \square$ |  | 6 |
|  | Author:Committer:gshipley <author@grantshipley [author@grantshipley.com](mailto:author@grantshipley.com) |  |  |
| Staged Changes (1) |  |  |  |
| 四hello.jsp - src/main/webapp |  | Commit and Push | Commit |


|  | New <br> E Import Application... Delete Application Edit Embedded Cartridges... Restart Application |
| :---: | :---: |
| $C$ |  |
| jsp:scriptlet ${ }^{\text {a }}$ | All Environment Variables |
| Visual/Source Sou | Edit Environment Variables... <br> Show in Web Browser |
| \% Markers Prop | Tail files... <br> ฝ- Port forwarding... |
| $\square$ O author@grantsh <br> - (1) packt packt.r <br> + 亿 firstphp PI | Create a Server Adapter... <br> Refresh <br> Details |
| ธ MySQL <br> $\dagger$ 亿 lampstack | 5.5 mysql-5.5 <br> PHP 5.3 (php-5.3) |

 javasample-packt.rhcloud.com [Tomcat 7 (JBoss EWS 2.0), MySQL 5.5 on gear \#53016abce0b8cd13410004
==> jbossews/logs/catalina.out <==
Feb 16, 2014 10:02:04 PM org.apache.catalina.startup.Catalina start INFO: Server startup in 32367 ms
==> jbossews/logs/localhost access log.2014-02-16.txt <==
127.12.250.1 - - [16/Feb/2014:22:02:18 -0500] "GET /hello.jsp HTTP/1.1" 20074
127.12.250.1 - - [16/Feb/2014:22:11:06 -0500] "HEAD / HTTP/1.1" 200 -
127.12.250.1 - - [16/Feb/2014:22:11:06 -0500] "HEAD / HTTP/1.1" 200 -

| New |
| :--- |
| Import Application... |
| Eelete Application |
| Edit Embedded Cartridges... |
| Ell Environment Variables |
| Show in Web Browser |
| Tail files... |
| Port forwarding... |
| Refreate a Server Adapter... |
| Refresh |
| Details |

## Embed Cartridges

Please select the cartridges to embed into your application

OPENSHIFT

Embeddable Cartridges
10gen Mongo Monitoring Service Agent（10gen－mms－agent－0．1）
（⿴囗⿱一𧰨丶 Cron 1.4 （cron－1．4）
$\square$ Jenkins Client（jenkins－client－1）MongoDB 2.2 （mongodb－2．2）MySQL 5.1 （mysql－5．1）MySQL 5.5 （mysql－5．5）OpenShift Metrics 0.1 （metrics－0．1）PostgreSQL 8.4 （postgresql－8．4）PostgreSQL 9.2 （postgresql－9．2）RockMongo 1.1 （rockmongo－1．1）SwitchYard 0．8．0（switchyard－0）
Web Load Balancer（haproxy－1．4）

```
[^] phpMyAdmin 4.0 (phpmyadmin-4)
```



## Application deletion

You are about to destroy the "javasample" application.
This is NOT reversible, all remote data for this application will be removed.


Chapter 5




## Welcome to your JBoss EAP application on OpenShift

## Deploying code changes

OpenShift uses the Git version control system for your source code, and grants you access to it via the Secure Shell (SSH) protocol. In orde to upload and download code to your application you need to give us your public SSH key. You can upload it within the web console or install the RHC command line tool and run rhc setup to generate and upload your key automatically.

## Working in your local Git repository

If you created your application from the command line and uploaded your SSH key, rhe will automatically download a copy of that source code repository (Git calls this 'cloning') to your local system.

If you created the application from the web console, you'll need to manually clone the repository to your local system. Copy the application's source code Git URL and then run:
\$ git clone <git_url> <directory_to_create>
\# Within your project directory
\# Commit your changes and push to OpenShift
\$ git commit -a -m 'Some commit message'
\$ git push

- Learn more about deploying and building your application
- See the README file in your local application Git repository for more information on the options for deploying applications.

Sample Applications

## Managing your application

## Web Console

You can use the OpenShift web console to enable additional capabilities via cartridges, add collaborator access authorizations, designate custom domain aliases, and manage domain memberships.

## Command Line Tools

Installing the OpenShift RHC client tools allows you complete control of your cloud environment. Read more on how to manage your application from the command line in our User Guide.

## Development Resources

## JBoss Developer Studio

The JBoss Developer Studio is a full featured IDE with OpenShift integration built in. It gives you the ability to create, edit and deploy applications without having to leave the IDE. Links to download, install and use the JBoss Developer Studio for Linux, Mac OS X, or Windows can be found on the JBoss Developer Studio tools page.

## Debugging

View debugging information about the server environment including memory pools.

- Developer Center
- User Guide
- OpenShift Support
- Stack Overflow questions for OpenShift
- IRC channel at \#openshift on freenode.net
- Git documentation




Chapter 6



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## Welcome to your JBossEWS (Apache/Tomcat) application on OpenShift

## Deploying code changes

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If you created your application from the command line and uploaded your SSH key, rhc will automatically download a copy of that source code repository (Git calls this 'cloning') to your local system.

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- Learn more about deploying and building your application
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- IRC channel at \#openshift on freenode.net
- Git documentation


## S OPENSHIFT



| Bie Edar yew History nookmanks pools Help |
| :--- |
| Map of Mle Parks |

- 8 springmiberat



Chapter 7





| Application UUID | $5311180 f 500446 \mathrm{f} 54 \mathrm{a} 0003 \mathrm{bb}$ |
| :--- | :--- |
| Builder Size | small |
| Builder Timeout | 300000 |
| Builder Type | redhat-jbosseap-6 |

Source Code Management
cvs
(C) Git

Repositories URL of repository ssh:/5311180+500446f54a0003bb@mlbparks-packt.rhcloud.com///git/mlbparks.git
(7)

Advanced...
Delete Repository
Add
Branches to build Branch Specifier (blank for default): $\quad \because$
(2)

Delete Branch

Add

| Repository browser (Auto) | Advanced... |
| :--- | :--- |NoneSubversion

## Execute shell

## Command

```
source $OPENSHIFT_CARTRIDGE_SDK_BASH
alias rsync="rsync --delete-after -az -e '$GIT_SSH'"
upstream_ssh="5311180f500446f54a0003bb@mlbparks-${OPENSHIFT_NAMESPACE}.rhcloud.com"
# remove previous metadata, if any
rm -f $OPENSHIFT_HOMEDIR/app-deployments/current/metadata.json
if ! marker_present "force_clean_build"; then
    # don't fail if these rsyncs fail
    set +e
    rsync $upstream_ssh:'$OPENSHIFT_BUILD_DEPENDENCIES_DIR'
$OPENSHIFT_BUILD_DEPENDENCIES_DIR
    rsync $upstream_ssh:'$OPENSHIFT_DEPENDENCIES_DIR' $OPENSHIFT_DEPENDENCIES_DIR
    set -e
fi
# Build/update libs and run user pre_build and build
gear build
# Run tests here
# Deploy new build
# Stop app
$GIT_SSH $upstream_ssh "gear stop --conditional --exclude-web-proxy --git-ref
$GIT_COMMIT"
deployment_dir='$GIT_SSH $upstream_ssh 'gear create-deployment-dir'
# Push content back to application
rsync $OPENSHIFT_HOMEDIR/app-deployments/current/metadata.json $upstream_ssh:app-
deployments/$deployment_dir/metadata.json
rsync --exclude .git $WORKSPACE/ $upstream_ssh:app-root/runtime/repo/
rsync $OPENSHIFT_BUILD_DEPENDENCIES_DIR $upstream_ssh:app-root/runtime/build-
dependencies/
rsync $OPENSHIFT_DEPENDENCIES_DIR $upstream_ssh:app-root/runtime/dependencies/
# Configure / start app
$GIT_SSH $upstream_ssh "gear remotedeploy --deployment-datetime $deployment_dir"
```

See the list of avalable environment variables



mlbparks-build \#1 Console [Jenkins] - Mozilla Firefox
File Edit View History Bookmarks Tools Help
. mlbparks-build \#1 Console [Jenkins] +

S Applications | OpenShift Online by...
－a https：／／openshift．redhat．com／app／console／applications

## OPENSHIFT＇ONLINE


＊Applications
Available in domain packt
Ciserver
Jenkins Server
mlbparks
［3） 1 㑊
JBoss Enterprise Application Platform 6，MongoDB 2．4，Jenkins Client

Add Application．．．

You may want to．．．
Use an empty domain
－packtdev
See all domains
Use your own domain name ©
Create a scalable application（

From the command line
The rhc client lets you： Access logs 0
Save and restore backups $\theta$
Connect directly to internal services ©

```
File Edit View History Bookmarks Tools Help
O Domains | OpenShift Online by Re... 
```

OPENSHIFT＇ONLINE

Applications
Settings
Help

## （2）Domains

Your domains

| packt | 2 applications | 2 gears | 2 members |
| :--- | :--- | :--- | :--- |
| packtdev | 0 applications | 0 gears | 1 member |

Add Domain．．．



| OPENSHIFT'ONLINE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Applications | Settings | Help |  |  |  |  |
| (4) Domains |  |  |  |  |  |  |
| Your domains |  |  |  |  |  |  |
| packt |  |  | 2 applications | 2 gears | 1 member |  |
| packtdev |  |  | 0 applications | 0 gears | 1 member |  |
| packtqa |  |  | 0 applications | 0 gears | 1 member |  |
| Add Domain... |  |  |  |  |  |  |

Domain packt | OpenShift Online by Red Hat - Mozilla Firefox
File Edit View History Bookmarks Tools Help
3 Domain packt | OpenShift Online ...

OPENSHIFT ONLINE
Applications Settings Help

Domain packt

| Applications |
| :--- |
| Ciserver <br> Jenkins server |
| mlbparks <br> JBoss Enterprise Application Platform 6, MongoDB 2.4, Jenkins Client |

Settings
(2) Allow small gears

## Members

No one else can see this domain. Add members...

Delete this domain...


Domain packt | OpenShift Online by Red Hat - Mozilla Firefox

```
File Edit View History Bookmarks Tools Help
```

S Domain packt | OpenShift Online ... $\ddagger$

OPENSHIFT ONLINE
Applications Settings Help
Domain packt 2


* O https://openshift.redhat.com/app/console/domain/packt



| Eile Edit View History Bookmarks Tools Help <br> § Domain packt \| OpenShift Online ... |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| * ${ }^{\text {a https://openshift.redhat.com/app/console/domain/packt }}$ |  |  |  |  |  |  | - |  | Q ת |
| 3 OPENSHIFT ONLINE |  |  |  |  |  |  |  |  |  |
| Applications Settings Help |  |  |  |  |  |  |  |  |  |
| Domain packt |  |  |  |  |  |  |  | 2 \% |  |
| Applications |  |  |  |  |  |  |  |  |  |
| ciserver <br> Jenkins Server |  |  |  |  |  | Members |  |  |  |
| mlbparks <br> JBoss Enterprise Application Platform 6, MongoDB 2.4, Jenkins Client |  |  |  |  |  | \& author+dev@grantshipley.com Edit members... | Can edit |  |  |
|  |  |  |  |  |  | Delete this domain... |  |  |  |

\& https://openshift.redhat.com/app/console/keys/new $\because$

## OPENSHIFT ONLINE

Applications Settings Help

Add a public key

Key name *
aNewKey

Paste the contents of your public key file
The contents of your public key file $\square$

Before you can upload and download code, you need to upload a public key to identify you to our servers. If this is your first time creating a public key read more about SSH keys and remote access.

Each gear in your application will have a copy of your public key this allows you to read and write to your Git repository as well as to access your application gears via SSH.

Chapter 9


| PHP |  | see all |
| :--- | :--- | :--- |
| emplo | PHP 5.3 | PHP 5.3 with Zend Server 5.6 |



Get up and running quickly with a Codelgniter installation on OpenShift's platform-as-a-service. The backend database is MySQL and the database name is the same as your application name (using
\$_ENV['OPENSHIFT_APP_NAME']).
Useful resources:
https://www.openshift.com/blogs/getting-started-with-php-codeigniter-mongodb-paas

## Learn more

## Community created

Does not receive automatic security updates

## Codelgniter

REVIEWED Added by sgoodwin on Friday, May 10, 2013

## Deploy Now

Get up and running quickly with a Codelgniter installation on OpenShift's platform-as-a-service. The backend database is MySQL and the database name is the same as your application name (using \$_ENV['OPENSHIFT_APP_NAME']).

## Useful resources:

- https://www.openshift.com/blogs/getting-started-with-php-codeigniter-mongodb-paas

Uses php-5, mysql-5 with code from https://github.com/openshift/CodelgniterQuickStart
Language: PHP
Website: http://ellislab.com/codeigniter
Tags: framework instant_app php

## OPENSHIFT' ONLINE

Applications Settings Help

Configure the application Next steps

| Based On | Codelgniter Quickstart $\ddagger$ <br> Get up and running quickly with a Codelgniter installation on OpenShift's platform-as-a-service. The backend database is MySQL and the database name is the same as your application name (using \$_ENV['OPENSHIFT_APP_NAME']). |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  | Useful resources: |  |  |  |  |
|  | https://www.openshift.com/blogs/getting-started-with-php-codeigniter-mongodb-paas |  |  |  |  |
|  | Learn more |  |  |  |  |
|  | Community created |  |  |  |  |
|  | Does not receive automatic security updates |  |  |  |  |
| Public URL | http:// | php |  | packt $\quad$ - | .rhcloud.com |
|  | You can also create a new domain. |  |  |  |  |
|  | OpenShift will automatically register this domain name for your application. You can add your own domain name later. |  |  |  |  |
| Source Code | https://github.com/openshift/Codelgnite |  |  | Branch/tag |  |
|  | Your application will start with an exact copy of the code and configuration provided in this Git repository. OpenShift may expect certain files to exist in certain directories, which may require you to update your repository after creation. |  |  |  |  |
| Gears | Small |  |  |  |  |
|  | Gears are the application containers running your code. For most applications, the small gear size provides plenty of resources. You can also upgrade your plan to get access to more gear sizes. |  |  |  |  |
| Cartridges | PHP 5.3 - and MySQL 5.1 - |  |  |  |  |
|  | Applications are composed of cartridges - each of which exposes a service or capability to your code. All applications must have a web cartridge. |  |  |  |  |
| Scaling | No scaling $\quad$ - |  |  |  |  |
|  | OpenShift automatically routes web requests to your web gear. If you allow your application to scale, we'll set up a load balancer and allocate more gears to handle traffic as you need it. |  |  |  |  |
|  | Back | Create Application +1 |  |  |  |

## OPENSHIFT ONLINE

# Applications Settings Help 

Choose a type of application
2 Configure the application
Next steps

```
MySQL 5.1 database added. Please make note of these credentials:
        Root User: adminZdC79IJ
        Root Password: K39q6KCqLptY
        Database Name: codeigniter
```

Connection URL: mysql://\$OPENSHIFT_MYSQL_DB_HOST:SOPENSHIFT_MYSQL_DB_PORT/
You can manage your new MySQL database by also embedding phpmyadmin.
The phpmyadmin username and password will be the same as the MySQL credentials above.

Your application has been created. Continue to the application overview page.

## Making code changes

Install the Git client for your operating system, and from your command line run
git clone ssh://53643f65e0b8cdae61000002@codeigniterpackt.rhcloud.com/~/git/codeigniter.git/ cd codeigniter/

## Manage your app

The console is convenient, but if you need deeper control try our other client tools

## Command-Line

All of the capabilities of OpenShift are exposed through our command line tool, rhc. Follow these steps to install the client on Linux, Mac OS X , or Windows.


| Welcome to Codelgniter! |
| :--- |
| The page you are looking at is being generated dynamically by Codelgniter. |
| If you would like to edit this page you'll find it located at: |
| application/views/welcome_message.php |
| The corresponding controller for this page is found at: |
| application/controllers/welcome.php |

If you are exploring Codelgniter for the very first time, you should start by reading the User Guide.


## Welcome to Codelgniter on OpenShift!

The page you are looking at is being generated dynamically by Codelgniter.
If you would like to edit this page you'll find it located at:
application/views/welcome_message.php

The corresponding controller for this page is found at:
application/controllers/welcome.php

If you are exploring Codelgniter for the very first time, you should start by reading the User Guide


## OPENSHIFT ONLINE

## Applications Settings Help

Choose a cartridge to add to your application.

MongoDB 2.4
MongoDB is a scalable, high-performance, open source NoSQL database.

## MySQL 5.1

MySQL is a multi-user, multi-threaded SQL database server

## MySQL 5.5

MySQL is a multi-user, multi-threaded SQL database server.

PostgreSQL 8.4
PostgreSQL is an advanced ObjectRelational database management system

## PostgreSQL 9.2

PostgreSQL is an advanced Object Relational database management system

## Jenkins Client

The Jenkins client connects to your Jenkins application and enables builds and testing of your application. Requires the Jenkins Application to be created via the new application page. Based on Jenkins Client $1.509+$

## OpenShift Metrics 0.1

An experimental cartridge that
demonstrates retrieving real-time statistics from your application. May be removed or replaced in the future.

## SwitchYard 0.8.0

SwitchYard is a lightweight service delivery framework providing full lifecycle support for developing, deploying, and managing service-oriented applications.

## Cron 1.4

The Cron cartridge allows you to run command line programs at scheduled times. Use this for background jobs and periodic processing.

## Has Dependencies

## RockMongo 1.1

Web based MongoDB administration tool. Requires the Mongo DB cartridge to be installed first.

Requires mongodb-2.4

## phpMyAdmin 4.0

Web based MySQL admin tool. Requires the MySQL cartridge to be installed

Requires mysql-5.5 or mysql-5.1


## OPENSHIFT' ONLINE

## New Alias for cartadd

Aliases allow you to use your own domain names for your apps on OpenShift. To set up your own domain name for app cartadd

1. Set up the CNAME record with your DNS provider $\nearrow$
2. Configure OpenShift to use your alias:


## SSL Certificate

Optionally upload an SSL certificate for your custom domain alias to allow secure HTTPS communication with your app.


Certificate files must be Base64 PEM-encoded and typically have a .crt or .pem extension. You may combine multiple certificates and certificate chains in a single file, but the RSA or DSA private key must always be provided in a separate file.


Pass phrase for the certificate private key, required if the provided private key is encrypted.



## OPENSHIFT ONLINE

Applications Settings Help

## Delete Application

Are you sure you want to delete the application 'cartadd'?
This will delete all the code and data associated with the app, and cannot be undone. Make sure this is something you really want to do!
Cancel
Delete

Chapter 10





## Configure OpenShift Markers for project mlbparks

## Configure OpenShift Markers

Add or remove markers to enable OpenShift features in the application mlbparks. The markers will be created/deleted directly in /mlbparks/.openshift/markers

Markers

| Marker | File |
| :--- | :--- |
| $\square$ Disable Auto Scaling | disable_auto_scaling |
| $\boxed{\boxed{Z}}$ Enable JPDA | enable_jpda |
| $\square$ Force Clean Build | force_clean_build |
| $\square$ Hot Deploy | hot_deploy |
| ® Java 7 | java7 |
| Skin Maven Build | skin maven huild |

Marker Description
Will prevent scalable applications from scaling up or down according to application load



## Create, manage, and run configurations

Attach to a Java virtual machine accepting debug connections


File



Intellij IDEA 13.1.2 Build 135.690. Check for updates now.

## Clone Repository





## /Account

Summary Statements Users Profile AWS

## My Profile edit change password

Username author@grantshipley.com<br>My email author@grantshipley.com<br>Name Grant Shipley<br>Timezone offset UTC-06:00

## Notifications





## Chapter 12



OpenShift Gear



## OPENSHIFT ONLINE

(2) Configure the application

Next steps

| Based On | PHP 5.4 Cartridge <br> PHP is a general-purpose server-side scripting language originally designed for Web development to produce dynamic Web pages. Popular development frameworks include: <br> CakePHP, Zend, Symfony, and Code Igniter. <br> http://www.php.net <br> § OpenShift maintained <br> (T) Receives automatic security updates |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Public URL | http:// | webscaled | - | packt $\quad$ - | .rhcloud.com |
|  | You can also create a new domain. <br> OpenShift will automatically register this domain name for your application. You can add your own domain name later. |  |  |  |  |
| Source Code | Optional URL to a Git repository |  | Branch/tag |  |  |
|  | We'll create a Git code repository in the cloud, and populate it with a set of reasonable defaults. If you provide a Git URL, your application will start with an exact copy of the code and configuration provided in this Git repository. |  |  |  |  |
| Gears | Small |  |  |  |  |
|  | Gears are the application containers running your code. For most applications, the small gear size provides plenty of resources. You can also upgrade your plan to get access to more gear sizes. |  |  |  |  |
| Cartridges | PHP 5.4 |  |  |  |  |
|  | Applications are composed of cartridges - each of which exposes a service or capability to your code. All applications must have a web cartridge. |  |  |  |  |
| Scaling | Scale with web traffic |  |  |  |  |
|  | Openshift automatically routes web requests to your web gear. If you allow your application to scale, we'll set up a load balancer and allocate more gears to handle traffic as you need it. |  |  |  |  |
|  | Back | Create Application |  |  |  |

## OPENSHIFT ONLINE

## Applications

webscaled-packt.rhcloud.com change
Created 5 minutes ago in domain packt

Cartridges

| (a) PHP 5.4 | Scales Status Gears | Storage |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $1-16$ | Started | 1 small | 1 GB |

## - Web Load Balancer

## Databases

目 Add MongoDB 2.4
日 Add MySQL 5.5
E Add PostgreSQL 9.2

Or, see the entire list of cartridges you can add

Continuous Integration
© Enable Jenkins

## OPENSHIFT ONLINE

```
Applications

\section*{webscaled-packt.rhcloud.com change}

Created 9 minutes ago in domain packt

\section*{Cartridges}
\[
\text { PHP } 5.4
\]
\begin{tabular}{llll} 
Scales & Status & Gears & Storage \\
\(1-16\) & Started & 1 small & 1 GB
\end{tabular}

Web Load Balancer


\section*{OPENSHIFT' ONLINE}

Applications
Settings
Help
\begin{tabular}{l|l|}
\begin{tabular}{l} 
scaledapp-packt.rhcloud.com change \\
created about hour rgo n noman packit
\end{tabular} & Started 7 \\
\hline
\end{tabular}

\section*{Cartridges}


\section*{Continuous Integration}
© Enable Jenkins
Tools and Support
a Add phpMyAdmin 4.0

Or, see the entire list of cartridges you can add

\section*{Source Code}
ssh://5383e2c8500446265e000271@scaledapp-pack
Pass this URL to 'git clone' to copy the repository locally.
Remote Access
Want to log in to your application?
Members from domain packt
author@grantshipley.com Owner
author+dev@grantshipley.... Can edit
Delete this application...

\section*{OPENSHIFT ONLINE}
Applications Settings Help


\section*{OPENSHIFT' ONLINE}
Applications Settings Help

Scale scaledapp

PHP 5.4
using 2
OpenShift is configured to scale this cartridge with the web proxy HAProxy. OpenShift monitors the incoming web traffic to your application and automatically adds or removes copies of your cartridge (each running on their own gears) to serve requests as needed.

Control the number of gears OpenShift will use for your cartridge:
Minimum \([4 \leq]\) and Maximum All available \(\mp\) small gears Save

Each scaled gear is created the same way - the normal post, pre, and deploy hooks are executed. Each cartridge will have its own copy of runtime data, so be sure to use a database if you need to share data across your web cartridges.

For status information about traffic to your application, see the HAProxy status page:
http://scaledapp-packt.rhcloud.com/haproxy-status/


Chapter 13


\section*{Service Temporarily Unavailable}

The server is temporarily unable to service your request due to maintenance downtime or capacity problems. Please try again later.


\subsection*{8.0.8}

Please see the README file for packaging information. It explains what every distribution contains.

\section*{Binary Distributions}
- Core
- zip (pgp, md5)

0 tar.gz (pgp, md5)
- 32-bit Windows zip (pgp, md5)
- \(\underline{64 \text {-bit Windows zip (pgp, md5) }}\)
- 64-bit Itanium Windows zip (pgp, md5)
- 32-bit/64-bit Windows Service Installer (pgp, md5)
(2) tomcat8-packt.rhcloud.com

\section*{Apache Tomcat/8.0.8}

\section*{* The Apache Software Foundation \\ http://www.apache.org/}

\section*{If you're seeing this, you've successfully installed Tomcat. Congratulations!}

Recommended Reading:
Security Considerations HOW-TO
Manager Application HOW-TO
Clustering/Session Replication HOW-TO
\begin{tabular}{|l|}
\hline Server Status \\
\hline Manager App \\
\hline Host Manager \\
\hline
\end{tabular}
Developer Quick Start
\begin{tabular}{lll} 
Tomcat Setup & Realms \& AAA & Examples \\
First Web Application & JDBC DataSources &
\end{tabular} \begin{tabular}{l} 
Servlet Specifications \\
\hline
\end{tabular}
Managing Tomcat
For security, access to the manager webapp
is restricted. Users are defined in:
\$CATALINA_HoME/conf/tomcat-users .xml
In Tomcat 8.0 access to the manager
application is split between different users.
Read more...
Release Notes
Changelog
Migration Guide
Security Notices
\begin{tabular}{l} 
Documentation \\
Tomcat 8.0 Documentation \\
\hline Tomcat 8.0 Configuration \\
\hline Tomcat Wiki \\
Find additional important configuration \\
information in: \\
\$CATALINA_HOME/RUNNING. txt \\
Developers may be interested in: \\
Tomcat 8.0 Bug Database \\
Tomcat 8.0 JavaDocs \\
Tomcat 8.0 SVN Repository \\
\hline
\end{tabular}
\begin{tabular}{l} 
Getting Help \\
FAQ and Mailing Lists \\
The following mailing lists are available: \\
\begin{tabular}{l} 
tomcat-announce \\
Important announcements, releases, security \\
vulnerability notifications. (Low volume). \\
tomcat-users \\
User support and discussion \\
taglibs-user \\
User support and discussion for Apache Taglibs \\
tomcat-dev \\
Development mailing list, including commit \\
messages
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Other Downloads & Other Documentation & Get Involved & Miscellaneous & Apache Software Foundation \\
\hline Tomcat Connectors & Tomcat Connectors & Overview & Contact & Who We Are \\
\hline Tomcat Native & mod_jk Documentation & SVN Repositories & Legal & Heritage \\
\hline Taglibs & Tomcat Native & Mailing Lists & Sponsorship & Apache Home \\
\hline Deployer & Deployer & \(\underline{W} \mathbf{i k i}\) & Thanks & Resources \\
\hline
\end{tabular}```

