TechU

IBM

L111795
Lab: Red Hat OpenShift on POWER - Part 2

Please bring an EMAIL enabled device:

In Part 1, get a Red Hat Developer Account if you don't already have one

In Part 2, get a github account if you don't already have one

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October 2019 | Las Vegas NV

Session Objectives

- Sign up for GitHub
- Login to GitHub, fork a copy of a ruby repository, to your account
- Login to your OpenShift cluster
- Create Ruby project, and a a Ruby application, build, and deploy
- git clone your ruby repository to you server command line
- Make modifications
- git commit
- git push modified repository back to your github account
- rebuild and automatic redeploy
- refresh browser, see your modifications

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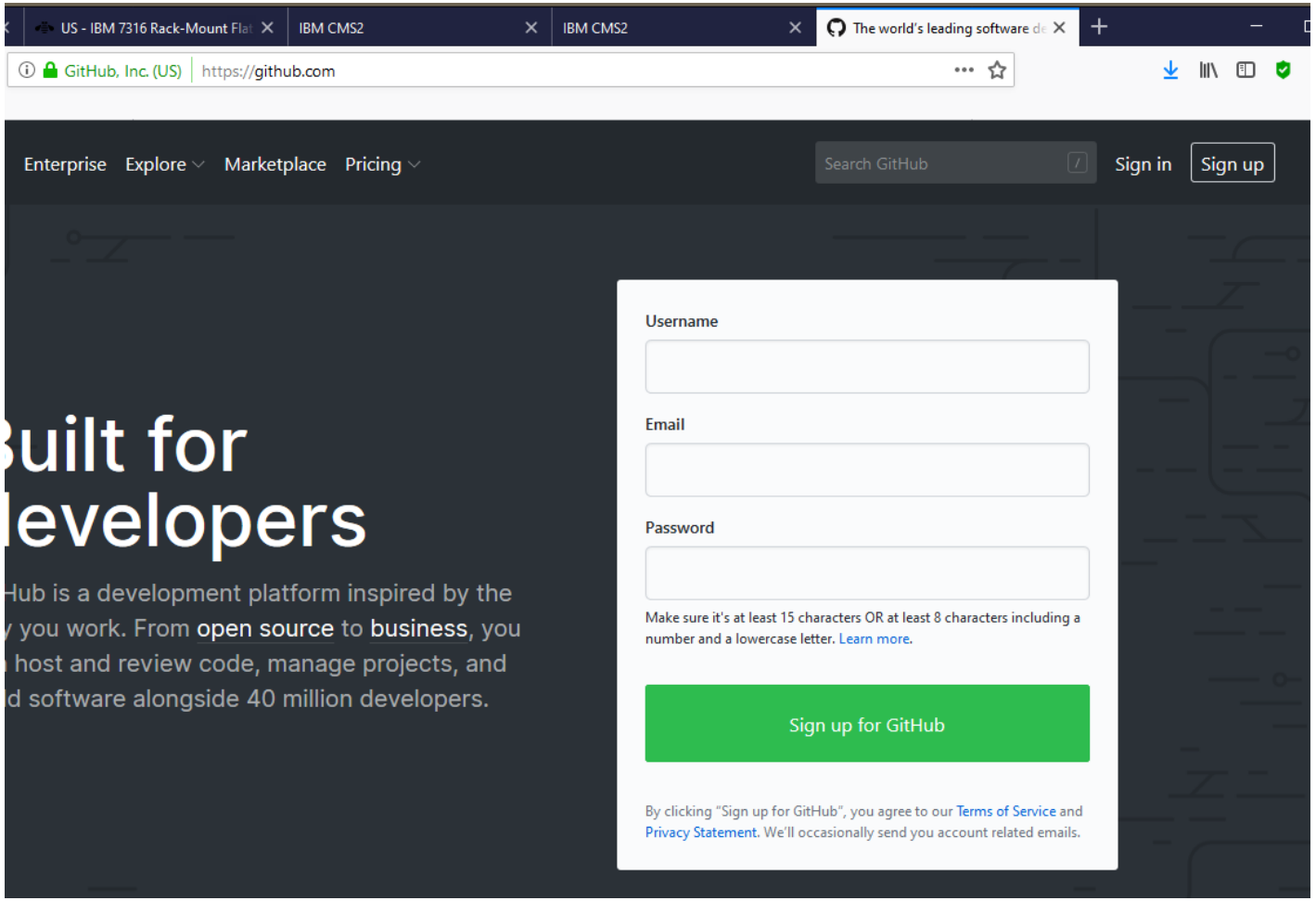
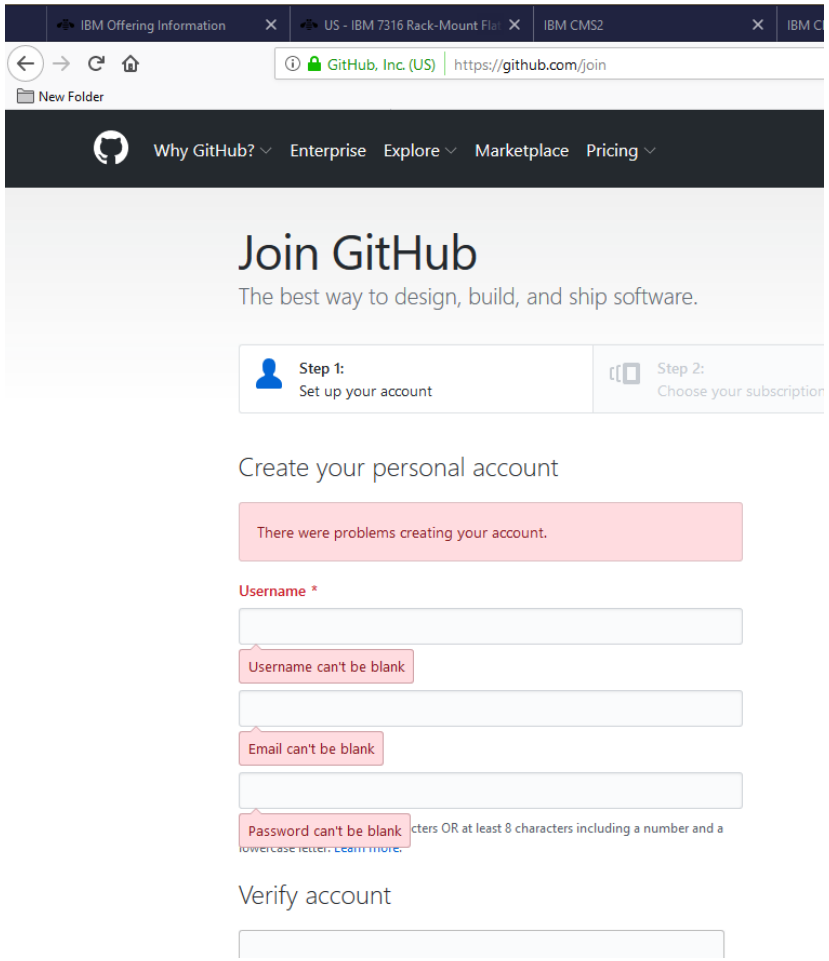
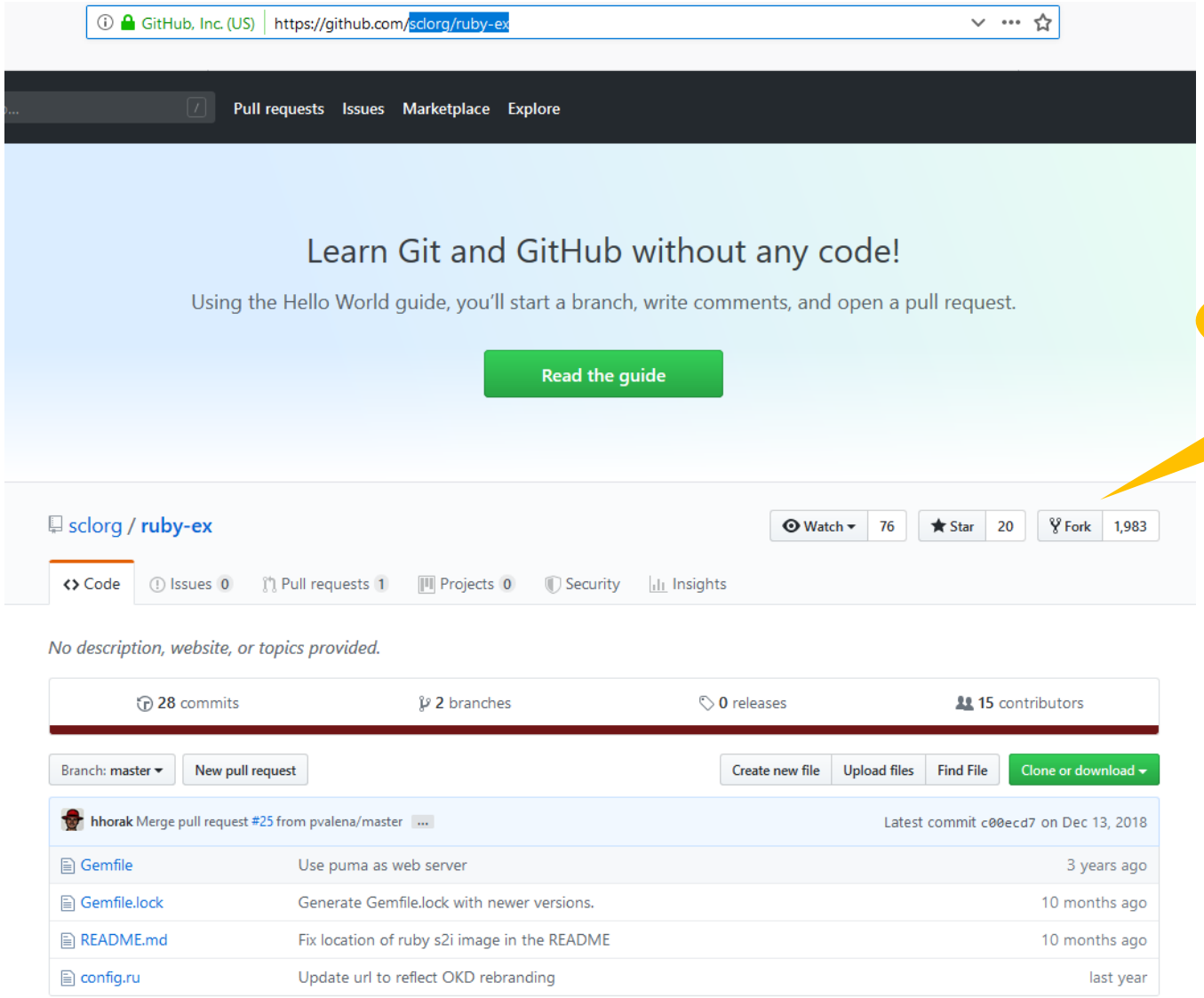
If you don't have a github account, Sign up https://github.com





Logged into github, go to public repository https://github.com/sclorg/ruby-ex



Fork a copy to your own account.

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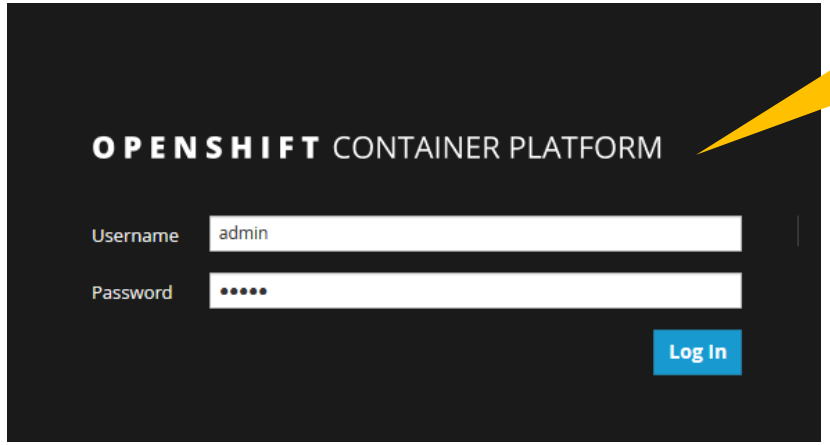
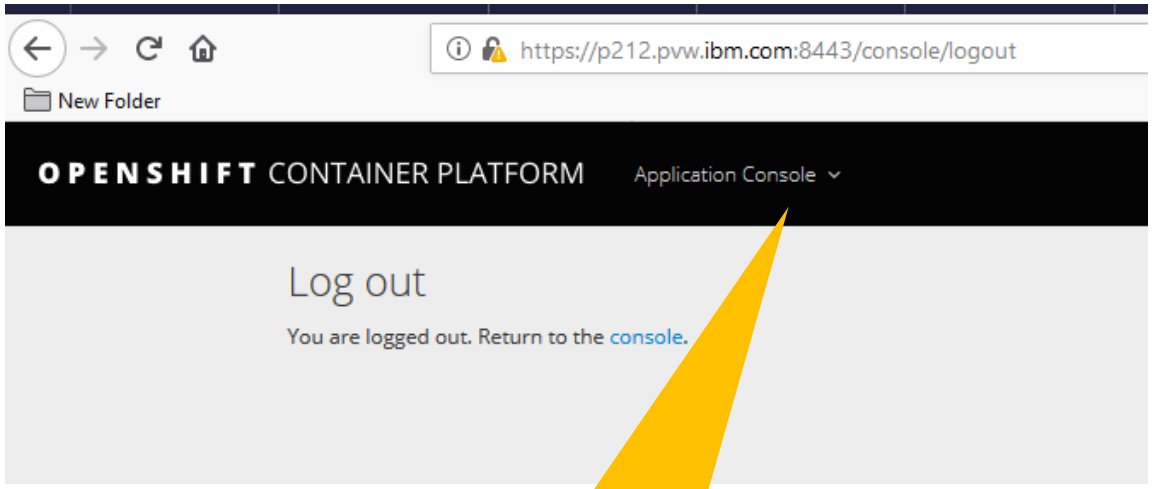
OpenShift login problem?

1) https://your.ip.addr:8443
admin / admin





If login attempt takes you here, hit this pull-down and select Service Catalog, and try the login again.

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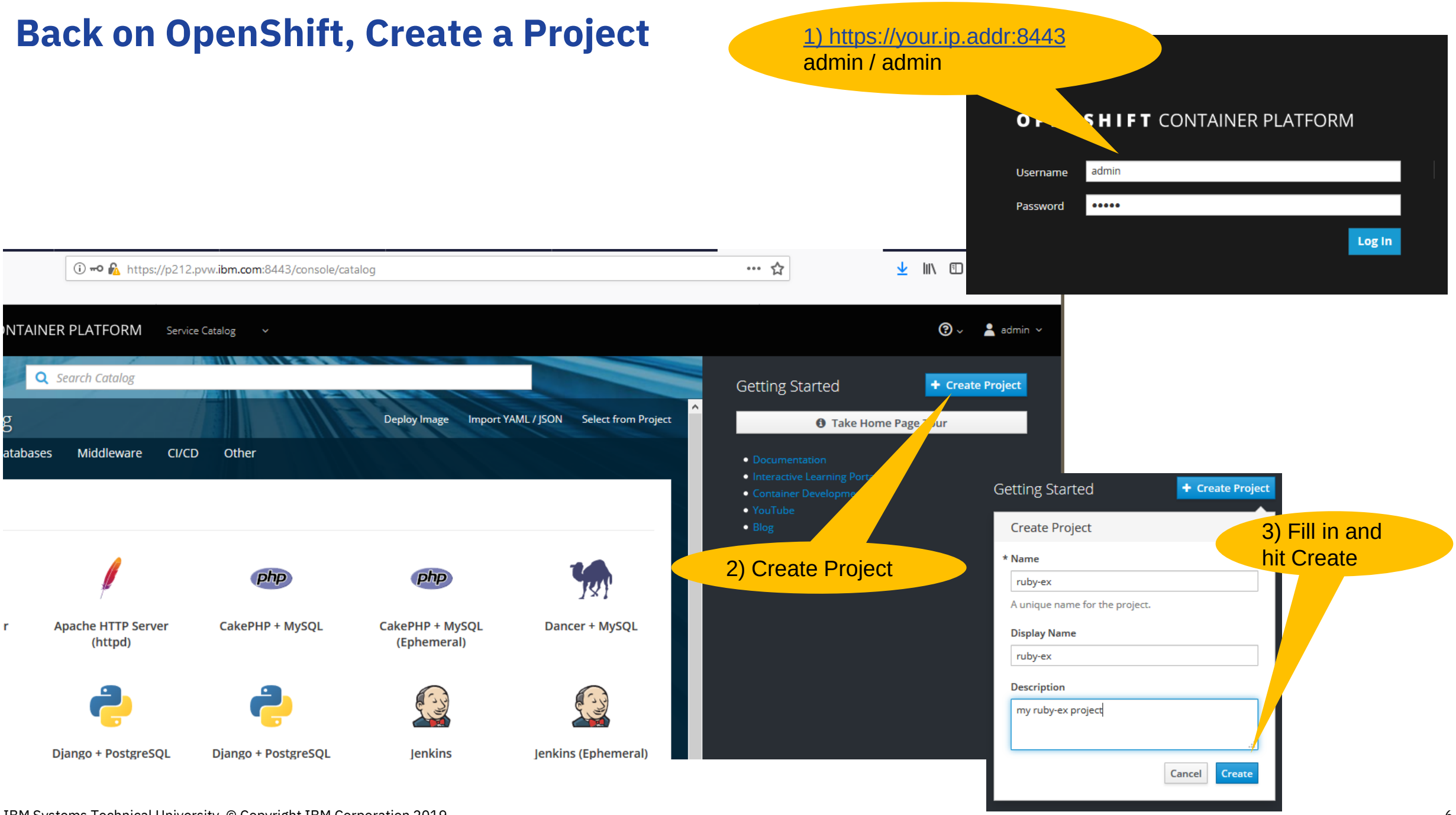
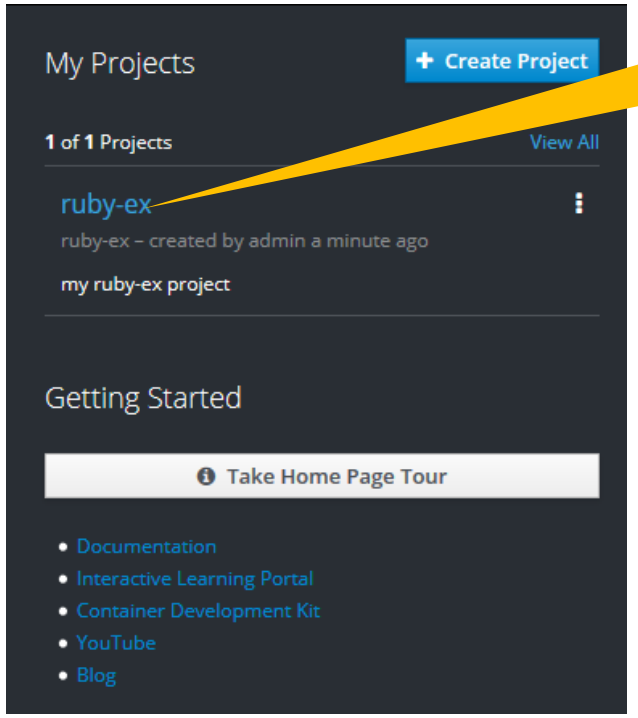
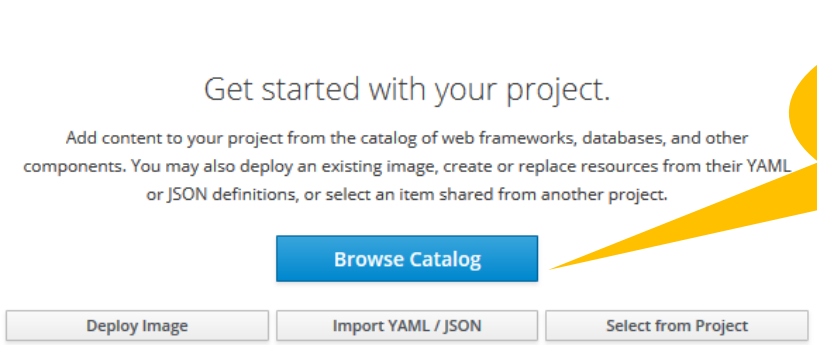
Back on OpenShift, Create a Project



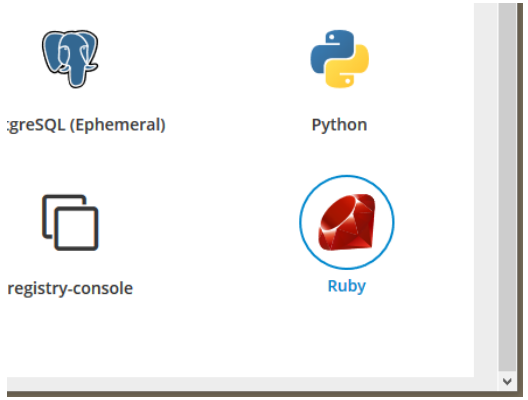
Open your project



Your Service catalog shows your one project, click on it to open



Browse Catalog, down and to the right, click on the basic "Ruby" app



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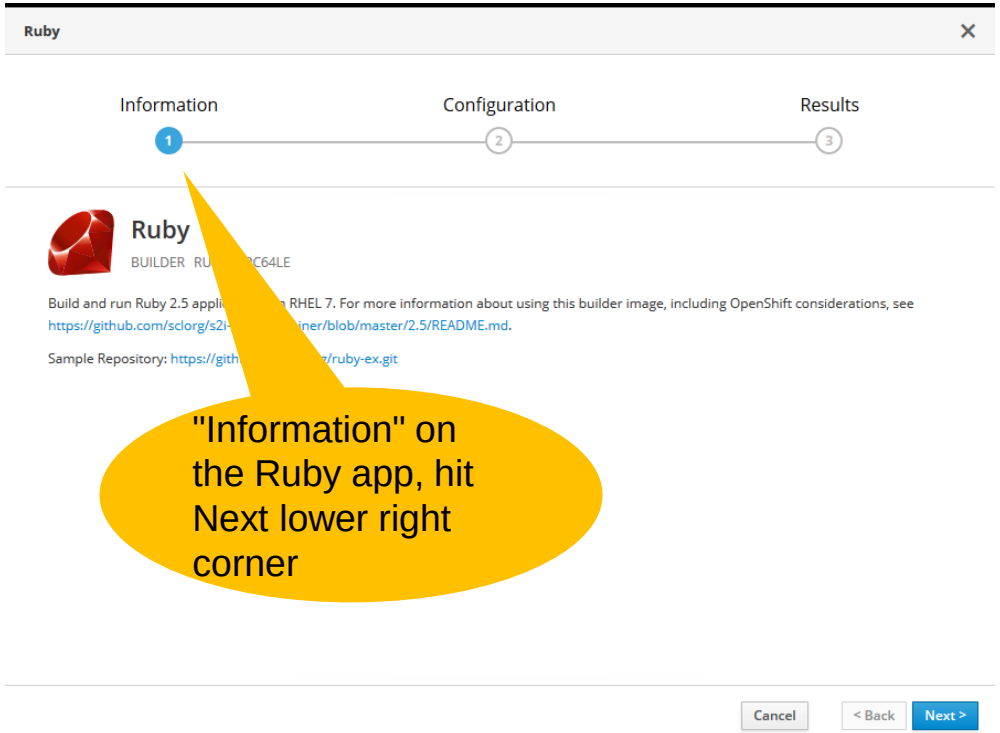
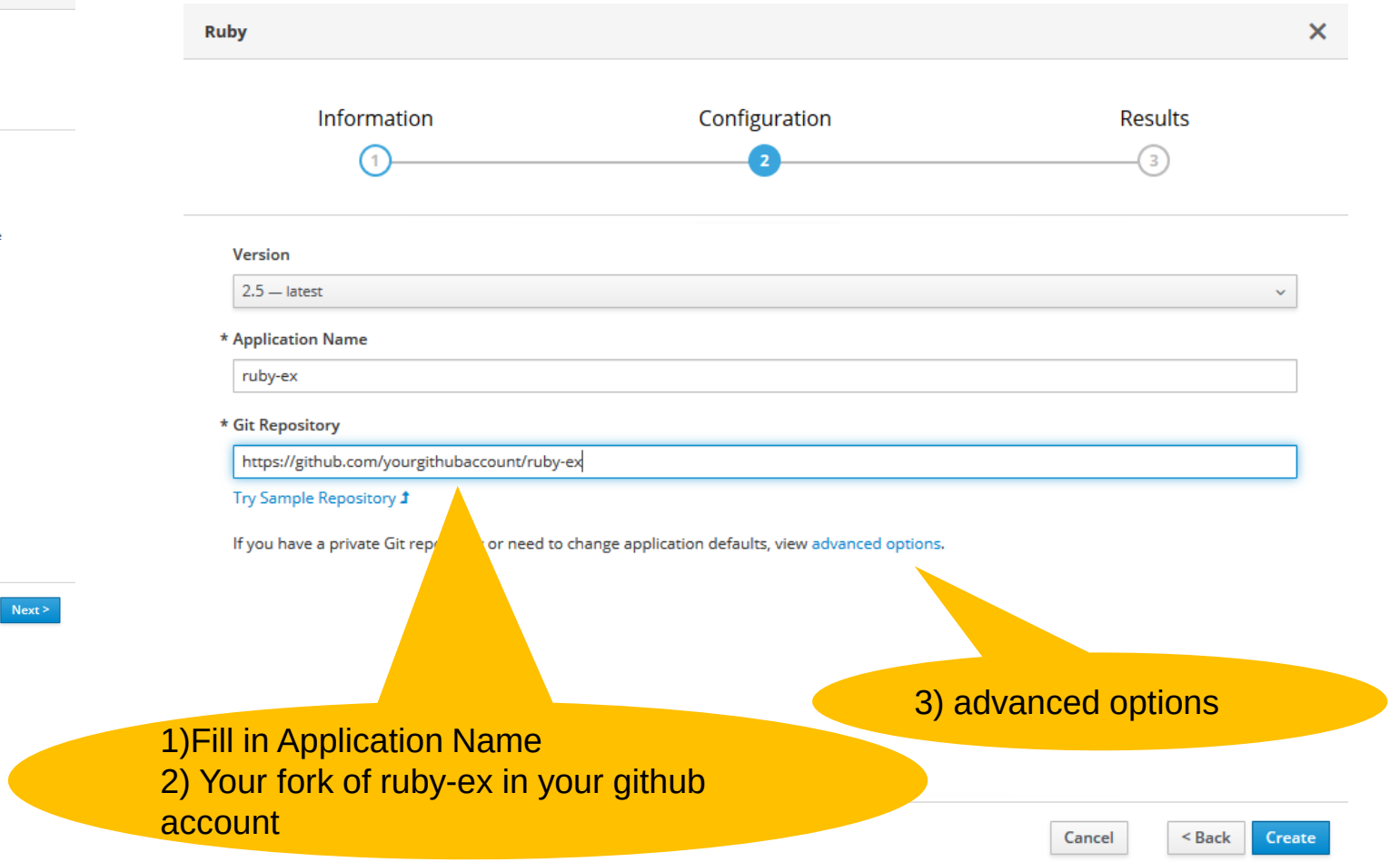
Ruby build





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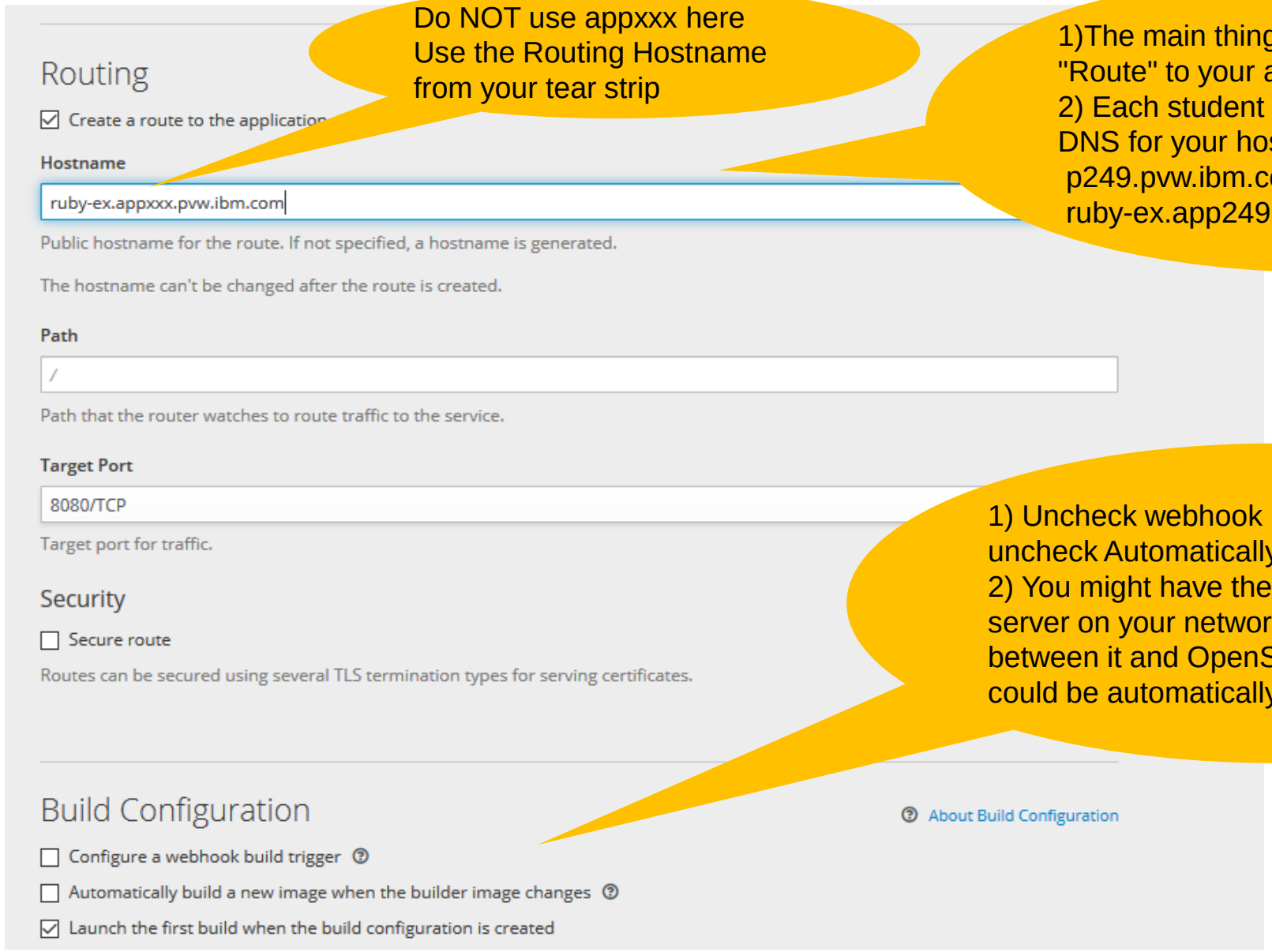
Ruby build advanced options



Do NOT use appxxx here
Use the Routing Hostname from your tear strip

1)The main thing you need here is a "Route" to your applications.
2) Each student has a unique wildcard in DNS for your hostname, e.g.,
p249.pvw.ibm.com uses
ruby-ex.app249.pvw.ibm.com

1) Uncheck webhook build trigger and uncheck Automatically build
2) You might have these on, if you had git server on your network, without firewall between it and OpenShift. Every git commit could be automatically built and launched

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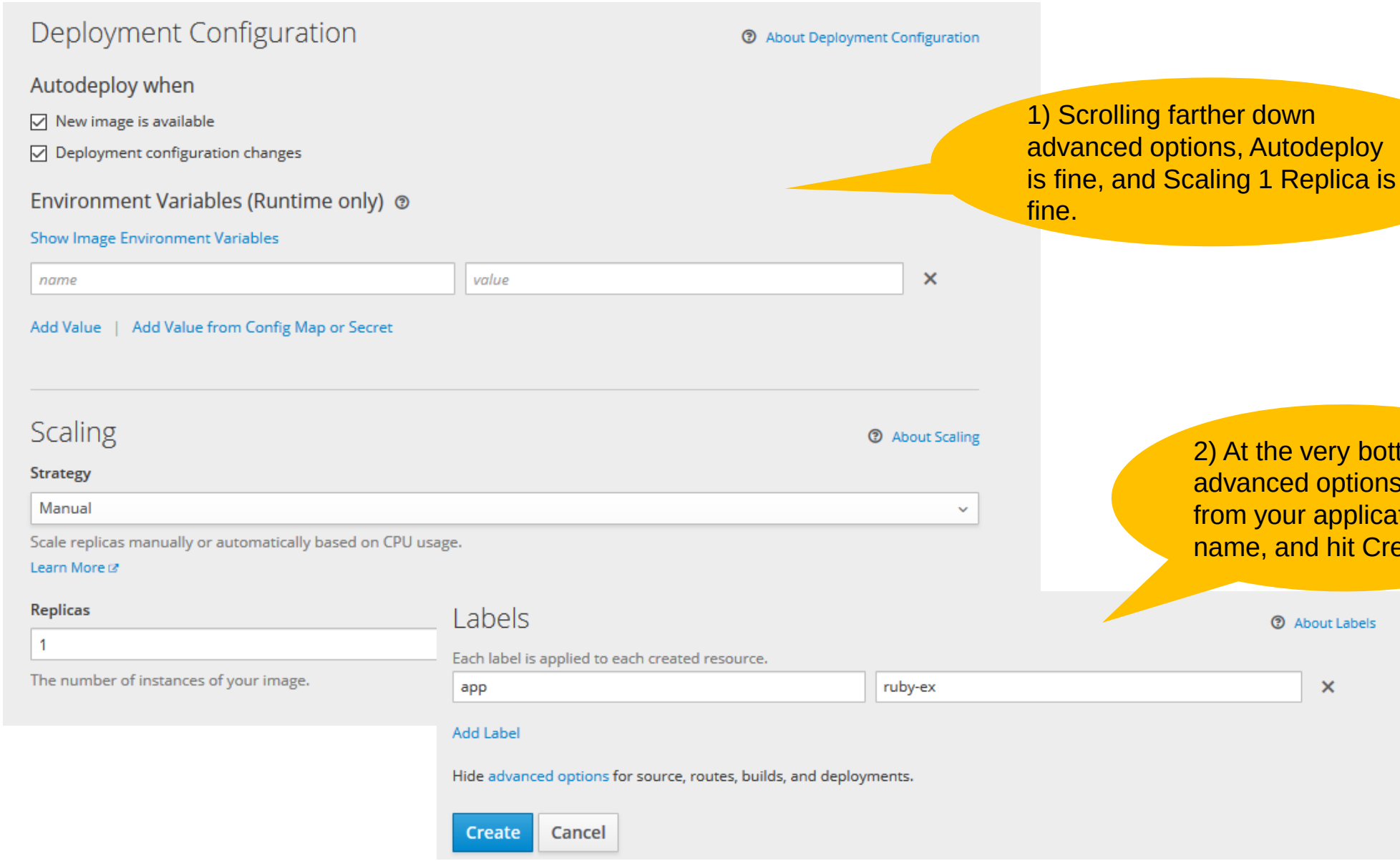
Ruby build advanced options



1) Scrolling farther down advanced options, Autodeploy is fine, and Scaling 1 Replica is fine.

2) At the very bottom of advanced options, label from your application name, and hit Create

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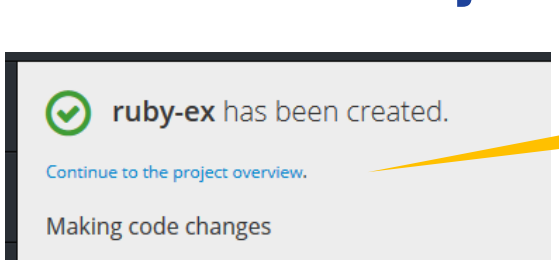
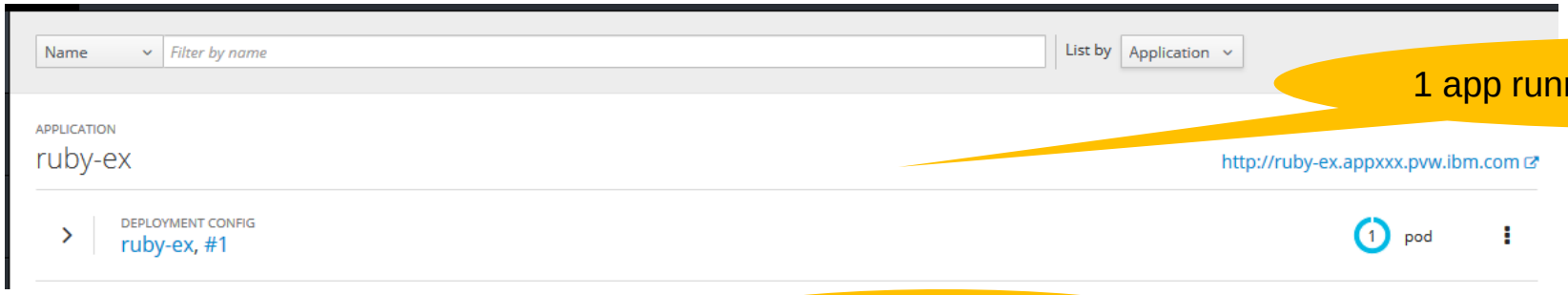
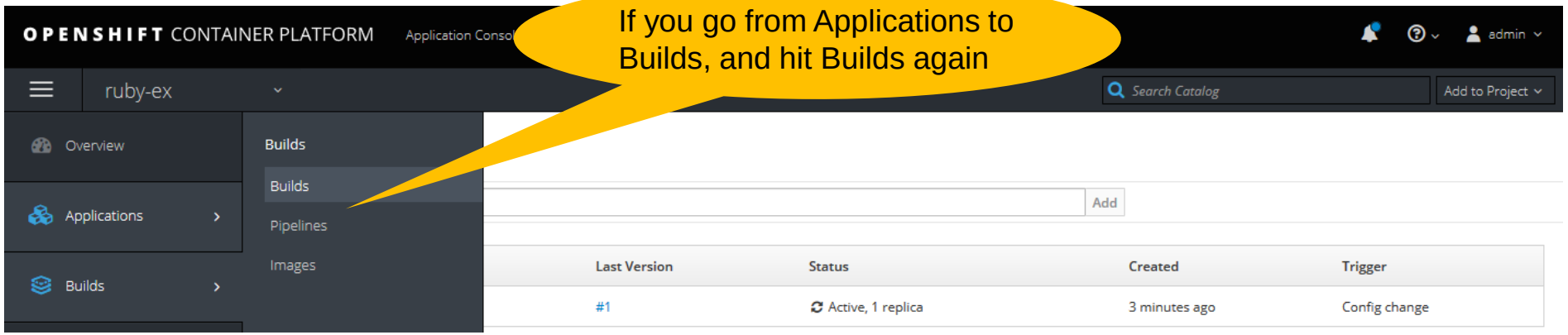
Continue to Project Overview



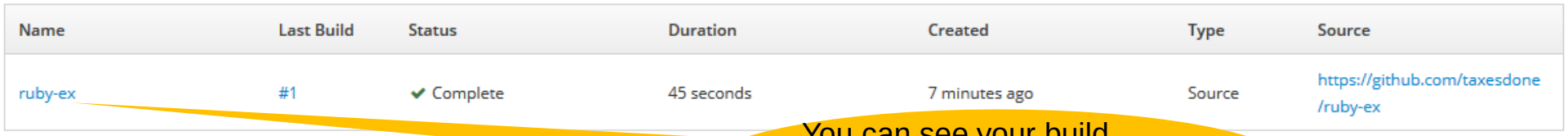
Continue to Project overview



1 app running in 1 Kubernetes pod



If you go from Applications to Builds, and hit Builds again



Name	Last Build	Status	Duration	Created	Type	Source
ruby-ex	#1	✔ Complete	45 seconds	7 minutes ago	Source	https://github.com/taxesdone/ruby-ex

You can see your build status. Click on the build itself

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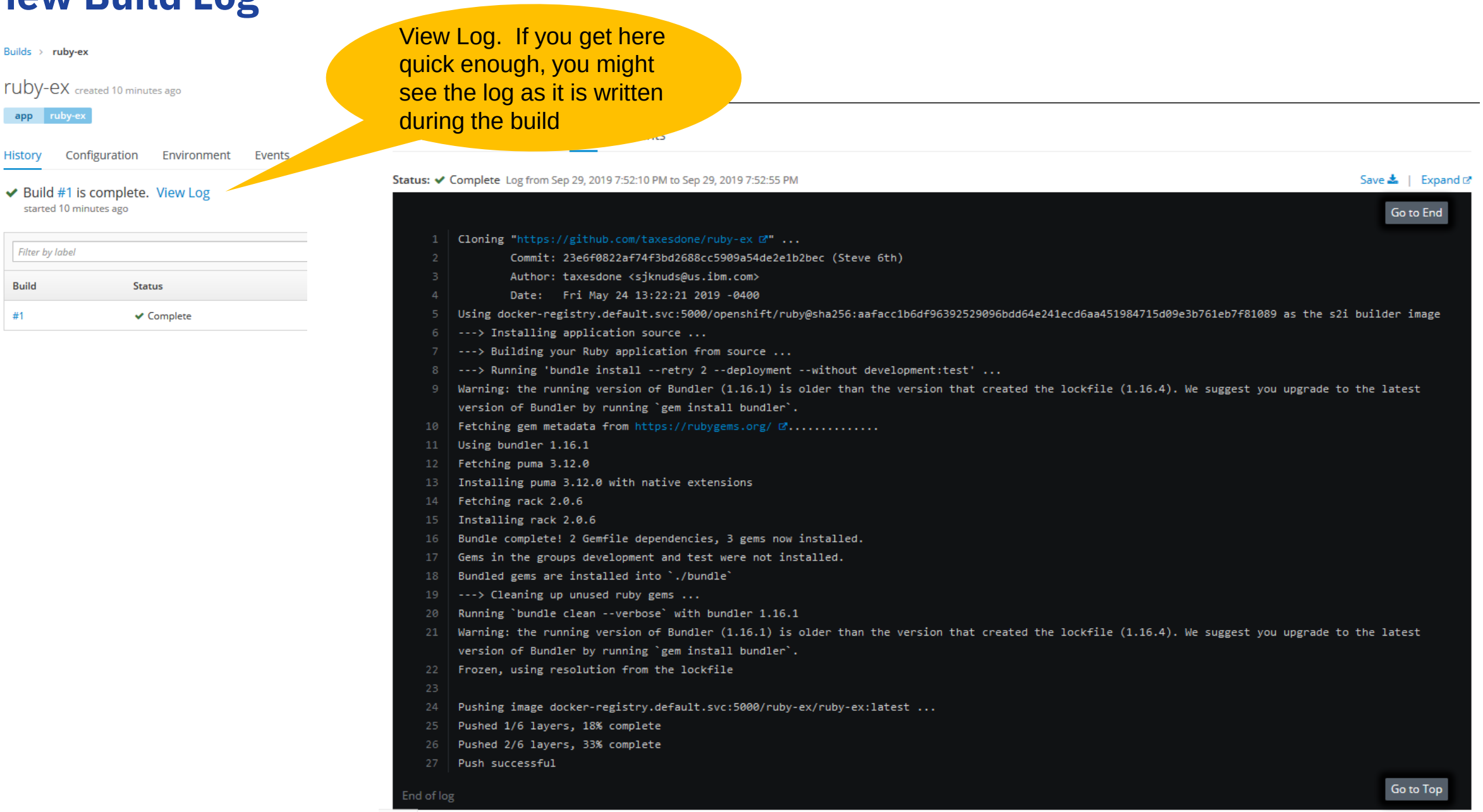
View Build Log



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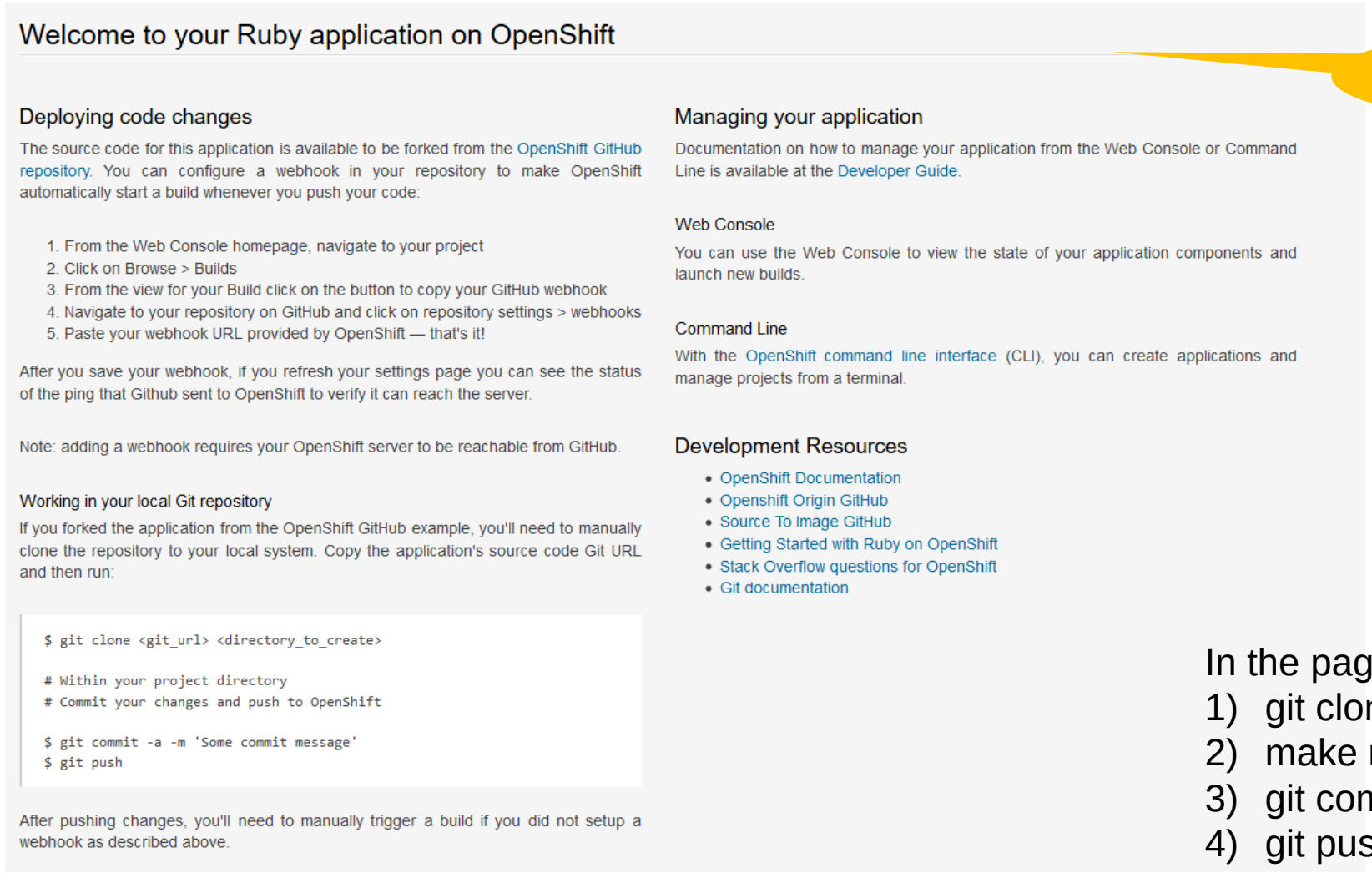
Browser to your Ruby app http://ruby-ex.appxxx.pvw.ibm.com



if you get here, Good Job!

In the pages ahead, lets take this farther:

1) git clone it to your RHEL command line
2) make modifications
3) git commit
4) git push back to your github account
5) Rebuild in OpenShift
6) Refresh the browser, see your changes

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PuTTY into RHEL student / abcd1234

```
Suppress some noise with git commands, by adding content to /home/student/.gitconfig
$ git config --global user.name "Your Name"
$ git config --global user.email you@email.com
$ git config --global push.default matching

$ git clone https://github.com/yourgithubaccount/ruby-ex ./ruby-ex
$ cd ruby-ex

$ vi config.ru (When you edit here, search for "Welcome" twice, and that should bring you to
                "Welcome to your Ruby application on OpenShift"  Change "your" to something
                like "Joe's 2nd") save and quit

$ git commit -m "Joe 2nd" -a

$ git push https://github.com/yourgithubaccount/ruby-ex (answer prompt for user and password)

On the next page, go back to OpenShift, build again and allow Autodeploy again
```

You can use your real values here. You will be pushing them back up to your exact github account

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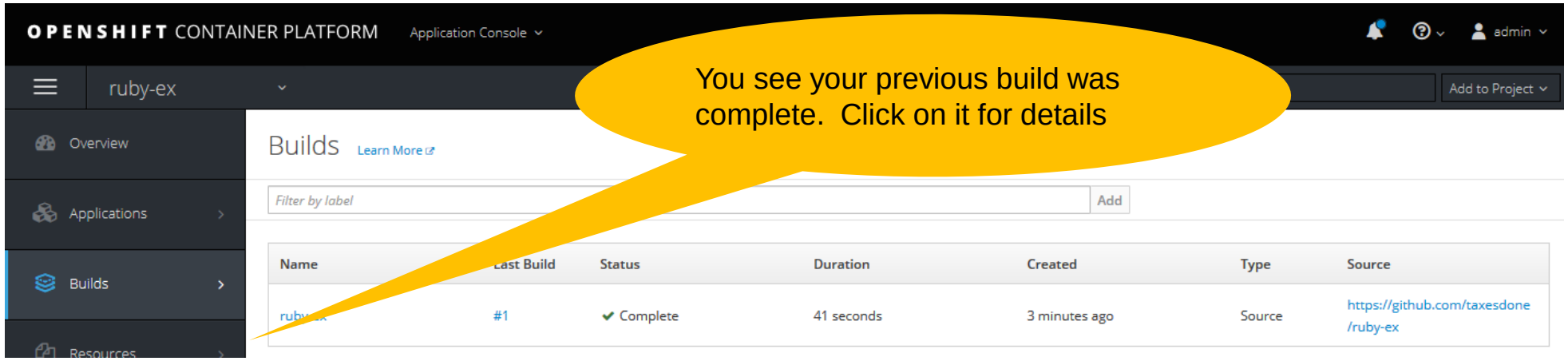
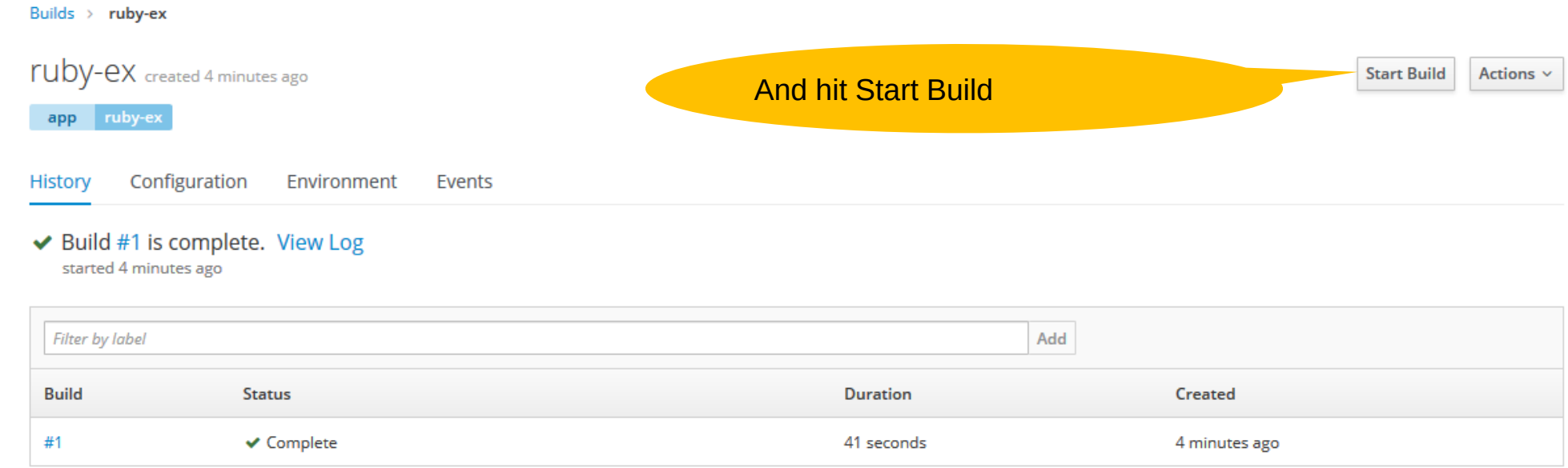
OpenShift - rebuild





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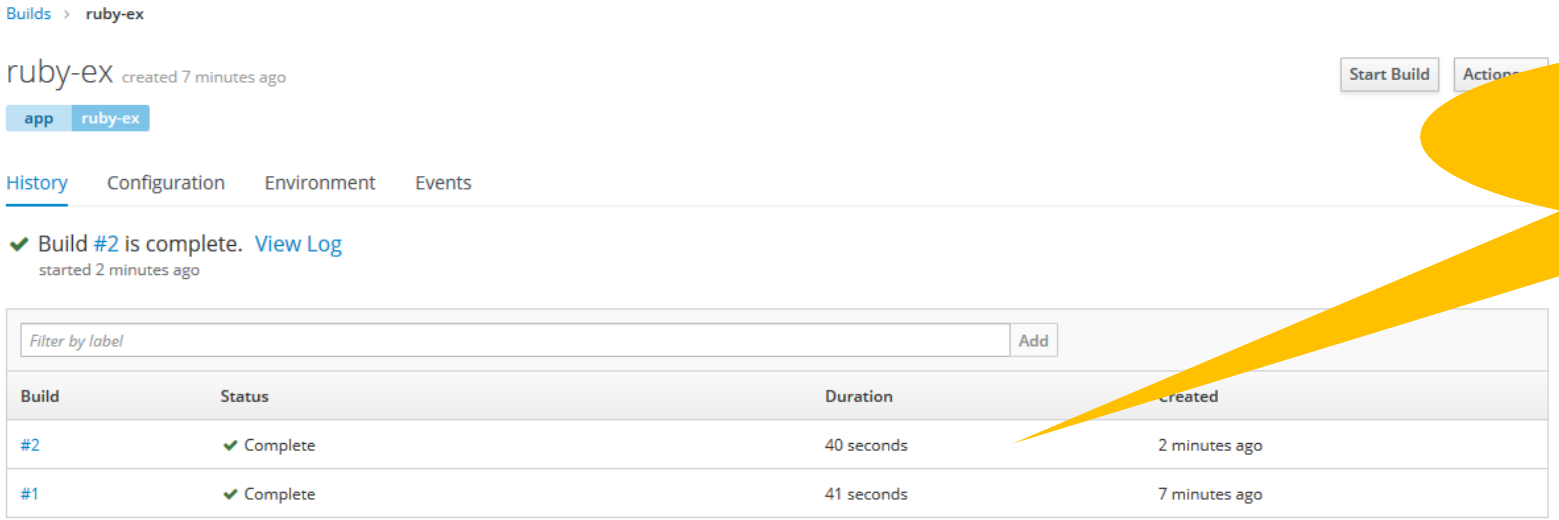
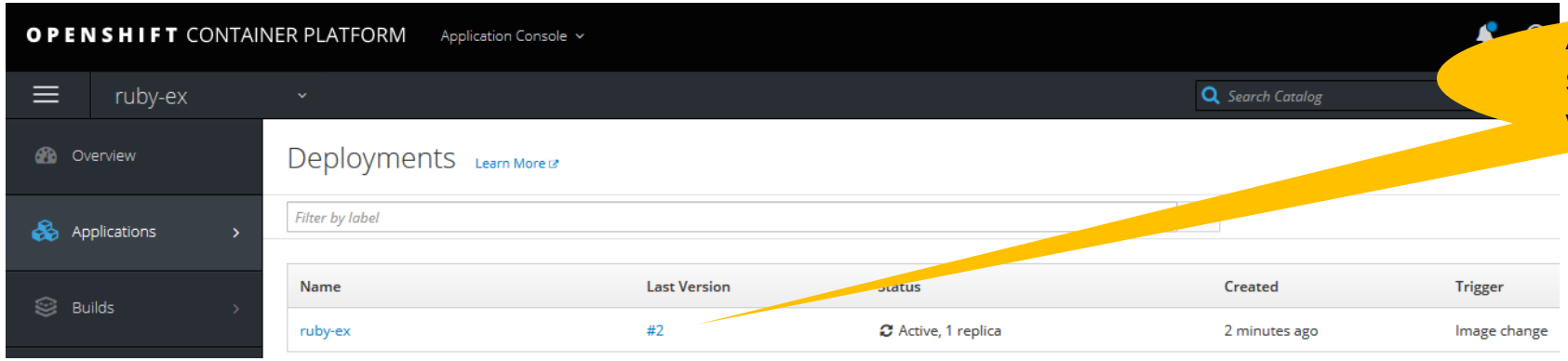
OpenShift - rebuild



You see your 2nd build completed



And Applications - Deployments shows you are running the 2nd version

Browser refresh, and see your 2nd build deployed

Welcome to Joe's 2nd application on OpenShift

Deploying code changes

The source code for this application is available to be forked from the OpenShift GitHub repository. You can configure a webhook in your repository to make OpenShift automatically start a build whenever you push your code:

1. From the Web Console homepage, navigate to your project
2. Click on Browse > Builds
3. From the view for your Build click on the button to copy your GitHub webhook
4. Navigate to your repository on GitHub and click on repository settings > webhooks
5. Paste your webhook URL provided by OpenShift — that's it!

After you save your webhook, if you refresh your settings page you can see the status of the ping that Github sent to OpenShift to verify it can reach the server.

Note: adding a webhook requires your OpenShift server to be reachable from GitHub.

Working in your local Git repository

If you forked the application from the OpenShift GitHub example, 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
```

After pushing changes, you'll need to manually trigger a build if you did not setup a webhook as described above.

Managing your application

Documentation on how to manage your application from the Web Console or Command Line is available at the Developer Guide.

Web Console

You can use the Web Console to view the state of your application components and launch new builds.

Command Line

With the OpenShift command line interface (CLI), you can create applications and manage projects from a terminal.

Development Resources

- OpenShift Documentation
- Openshift Origin GitHub
- Source To Image GitHub
- Getting Started with Ruby on OpenShift
- Stack Overflow questions for OpenShift
- Git documentation

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If you get a "jumbled" config

- Plan on "backing" everything off, and try again:
- Applications -> Routes – click on the route – Actions – Delete
  Applications -> Services – click on the service – Actions – Delete
  Applications – Deployments – click on the deployment – Actions – Delete
  Builds – Builds – click on the build – Actions – Delete
  Builds – Images – click on the image – Actions – Delete
  Click on the Project – hit pulldown – View All Projects - … menu – Delete Project

- What happens if you delete the pod? The deployment starts are new pod. You have to delete the deployment, not the pod(s)

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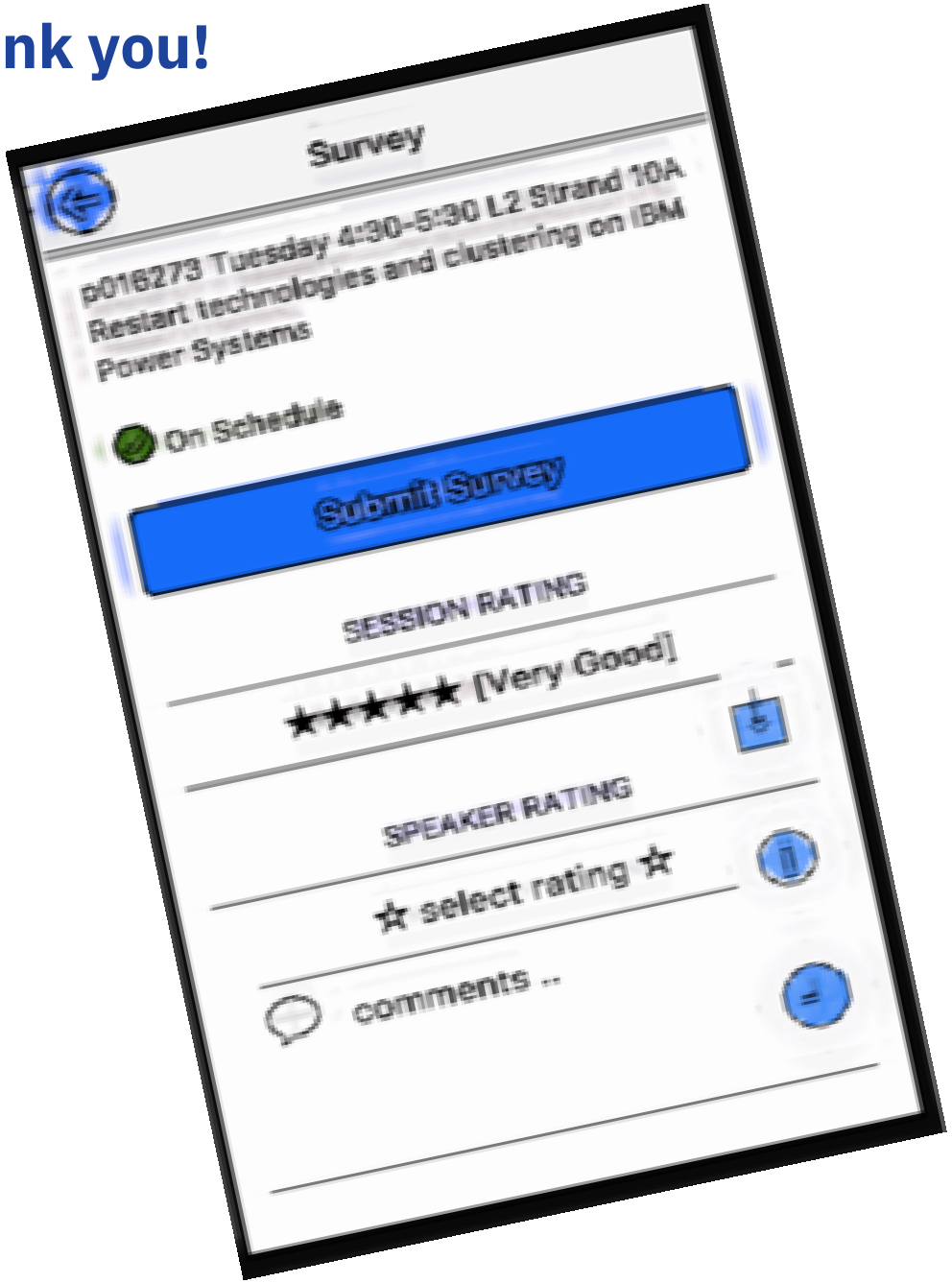
Thank you!



L111795 OpenShift on Power Part 2

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Please complete the Session Evaluation!

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