

Starter Labs (Python)

WORKSHOP MODULES

Workshop Summary

Environment Overview

Using Homeroom

Architecture Overview of the
ParksMap Application

Exploring the CLI and Web Console

Deploying Your First Container Image

Scaling and Self Healing

Exposing Your Application to the
Outside World

**Exploring OpenShift's Logging
Capabilities**

Role-Based Access Control

Remote Access to Your Application

Deploying Python Code

Adding a Database (MongoDB)

Application Health

Automate Build and Deployment with
Pipelines

Automation for Your Application on
Code Changes

Further Resources

Workshop Links

Exploring OpenShift's Logging Capabilities

OpenShift provides some convenient mechanisms for viewing application logs. First and foremost is the ability to examine a **Pod**'s logs directly from the web console or via the command line.

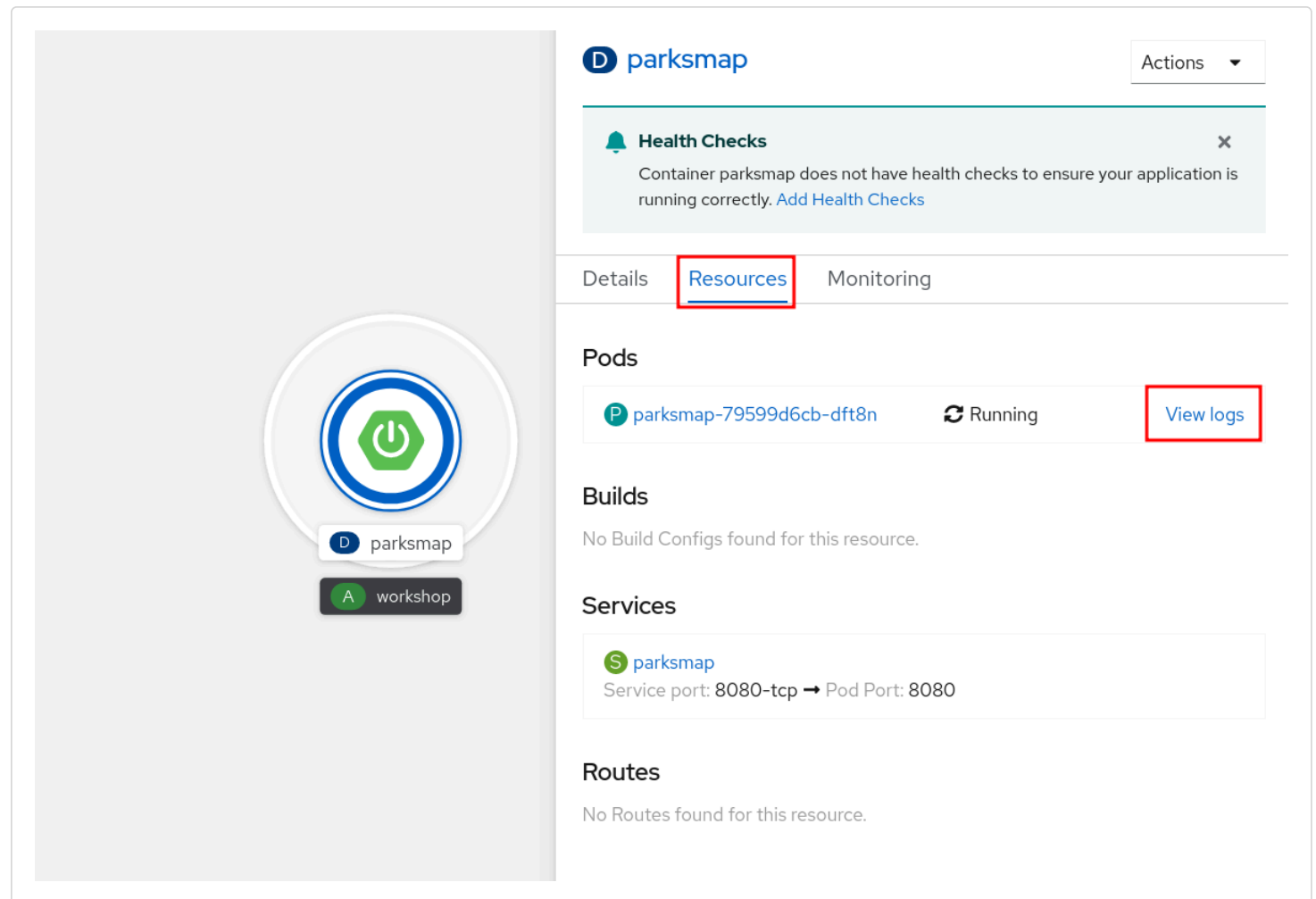
Background: Container Logs

OpenShift is constructed in such a way that it expects containers to log all information to `STDOUT`. In this way, both regular and error information is captured via standardized Docker mechanisms. When exploring the **Pod**'s logs directly, you are essentially going through the Docker daemon to access the container's logs, through OpenShift's API.

In some cases, applications may not have been designed to send all of their information to `STDOUT` and `STDERR`. In many cases, multiple local log files are used. While OpenShift cannot parse any information from these files, nothing prevents them from being created, either. In other cases, log information is sent to some external system. Here, too, OpenShift does not prohibit these behaviors. If you have an application that does not log to `STDOUT`, either because it already sends log information to some "external" system or because it writes various log information to various files, fear not.

Exercise: Examining Logs

Since we already deployed our application, we can take some time to examine its logs. In the Developer Perspective, from Topology view, click the `parksmap` entry and then the **Resources** tab. You should see a **View Logs** link next to the **Pod** entry.



D parksmap Actions ▾

Health Checks ✕
Container parksmap does not have health checks to ensure your application is running correctly. [Add Health Checks](#)

Details **Resources** Monitoring

Pods

P parksmap-79599d6cb-dft8n	Running	View logs
-----------------------------------	---------	---------------------------

Builds
No Build Configs found for this resource.

Services

S parksmap Service port: 8080-tcp → Pod Port: 8080
--

Routes
No Routes found for this resource.

Click the **View Logs** link and you should see a nice view of the **Pod's** logs:

Pods > Pod Details

P parksmap-79599d6cb-dft8n Running

Actions ▾

Details [YAML](#) [Environment](#) [Logs](#) [Events](#) [Terminal](#)

Log streaming...



parksmap ▾



Raw |



Download |



Expand

67 lines

```
2020-12-22 18:21:50.101 INFO 1 --- [main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapping
2020-12-22 18:21:50.101 INFO 1 --- [main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapping
2020-12-22 18:21:50.101 INFO 1 --- [main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapping
2020-12-22 18:21:50.102 INFO 1 --- [main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapping
2020-12-22 18:21:50.103 INFO 1 --- [main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapping
2020-12-22 18:21:50.103 INFO 1 --- [main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapping
2020-12-22 18:21:50.125 INFO 1 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapping
2020-12-22 18:21:50.126 INFO 1 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapping
2020-12-22 18:21:50.156 INFO 1 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapping
2020-12-22 18:21:50.174 INFO 1 --- [main] oConfiguration$WelcomePageHandlerMapping : Adding
2020-12-22 18:21:50.318 INFO 1 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Registering
2020-12-22 18:21:50.326 INFO 1 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Bean
2020-12-22 18:21:50.326 INFO 1 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Bean
2020-12-22 18:21:50.327 INFO 1 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Bean
2020-12-22 18:21:50.328 INFO 1 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Bean
2020-12-22 18:21:50.338 INFO 1 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Bean
2020-12-22 18:21:50.345 INFO 1 --- [main] o.s.j.e.a.AnnotationMBeanExporter : Bean
2020-12-22 18:21:50.415 INFO 1 --- [main] o.s.c.support.DefaultLifecycleProcessor : Starting
2020-12-22 18:21:50.416 INFO 1 --- [main] o.s.m.s.b.SimpleBrokerMessageHandler : Starting
2020-12-22 18:21:50.416 INFO 1 --- [main] o.s.m.s.b.SimpleBrokerMessageHandler : Starting
2020-12-22 18:21:50.416 INFO 1 --- [main] o.s.m.s.b.SimpleBrokerMessageHandler : Starting
2020-12-22 18:21:50.435 INFO 1 --- [main] s.b.c.e.t.TomcatEmbeddedServletContainer : Starting
2020-12-22 18:21:50.438 INFO 1 --- [main] c.o.evg.roadshow.ParksMapApplication : Starting
2020-12-22 18:22:49.852 INFO 1 --- [MessageBroker-1] o.s.w.s.c.WebSocketMessageBrokerStats : Starting
2020-12-22 18:40:44.749 INFO 1 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing
2020-12-22 18:40:44.749 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Framework
2020-12-22 18:40:44.760 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Framework
2020-12-22 18:40:50.204 INFO 1 --- [nio-8080-exec-2] c.o.e.roadshow.rest.BackendsController : Backend
```

If you notice some errors in the log, that's okay. We'll remedy those in a little bit.

You also have the option of viewing logs from the command line. Get the name of your **Pod**:

```
oc get pods
```

NAME	READY	STATUS	RESTARTS	AGE
parksmap-1-hx0kv	1/1	Running	0	5h

And then use the `logs` command to view this **Pod**'s logs:

```
oc logs parksmap-1-hx0kv
```

You will see all of the application logs scroll on your screen:

```
2019-05-22 19:37:01.433 INFO 1 --- [          main] o.s.m.s.b.SimpleBrokerMessageHandler :  
Started.  
2019-05-22 19:37:01.465 INFO 1 --- [          main] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat  
started on port(s): 8080 (http)  
2019-05-22 19:37:01.468 INFO 1 --- [          main] c.o.evg.roadshow.ParksMapApplication :  
Started ParksMapApplication in 3.97 seconds (JVM running  
for 4.418)  
2019-05-22 19:38:00.762 INFO 1 --- [MessageBroker-1] o.s.w.s.c.WebSocketMessageBrokerStats :  
WebSocketSession[0 current WS(0)-HttpStream(0)-HttpPoll(  
0), 0 total, 0 closed abnormally (0 connect failure, 0 send limit, 0 transport error)],  
stompSubProtocol[processed CONNECT(0)-CONNECTED(0)-DISCONNECT(0)]  
, stompBrokerRelay[null], inboundChannel[pool size = 0, active threads = 0, queued tasks = 0, completed  
tasks = 0], outboundChannel[pool size = 0, active  
threads = 0, queued tasks = 0, completed tasks = 0], sockJsScheduler[pool size = 1, active threads =  
1, queued tasks = 0, completed tasks = 0]
```

```
2019-05-22 19:44:11.517 INFO 1 --- [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/] :  
Initializing Spring FrameworkServlet 'dispatcherServlet'  
2019-05-22 19:44:11.517 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet :  
FrameworkServlet 'dispatcherServlet': initialization sta  
rted  
2019-05-22 19:44:11.533 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet :  
FrameworkServlet 'dispatcherServlet': initialization com  
pleted in 16 ms  
2019-05-22 19:44:13.395 INFO 1 --- [nio-8080-exec-2] c.o.e.roadshow.rest.BackendsController :  
Backends: getAll
```

If you scroll through the logs, you may notice an error that mentions a service account. What's that?
Never fear, we will cover that shortly.

[Continue](#)