1. Copy the springboot jar to linux
2. Build docker image

**Dockerfile:**

**FROM java:8**

**WORKDIR /**

**ADD gs-spring-boot-docker-0.1.0.jar app.jar**

**CMD java -jar app.jar**

1. ubuntu@ip-172-31-81-185:~/gs-spring-boot-docker$ ls

Dockerfile gs-spring-boot-docker-0.1.0.jar

1. **sudo docker build -t kokateaniket/gs-spring-boot-docker .**

Sending build context to Docker daemon 14.54 MB

Step 1/4 : FROM java:8

---> d23bdf5b1b1b

Step 2/4 : WORKDIR /

---> Using cache

---> 2066ba9bbc23

Step 3/4 : ADD gs-spring-boot-docker-0.1.0.jar app.jar

---> 61454361e889

Removing intermediate container 765259ede56c

Step 4/4 : CMD java -jar app.jar

---> Running in d4f4f477b59f

---> af65a8efbee5

Removing intermediate container d4f4f477b59f

Successfully built af65a8efbee5

1. ubuntu@ip-172-31-81-185:~/gs-spring-boot-docker$ **sudo docker images**

REPOSITORY TAG IMAGE ID CREATED SIZE

kokateaniket/gs-spring-boot-docker latest af65a8efbee5 7 seconds ago 658 MB

arunsharma/employee-consumer latest 902c9999fc16 23 hours ago 679 MB

arunsharma/edge-server latest eb1617aed8c7 25 hours ago 683 MB

kokateaniket/compute-interest-api latest ac0ef72835a1 2 days ago 332 MB

arunsharma/hystrix latest c807cdcbb848 3 days ago 191 MB

maven 3.3.9-jdk-8-alpine dd9d4e1cd9db 12 months ago 116 MB

java 8-alpine 3fd9dd82815c 12 months ago 145 MB

java 8 d23bdf5b1b1b 14 months ago 643 MB

1. **sudo juju ssh 0**
2. Create deployment

ubuntu@ip-172-31-28-227:~$ **sudo kubectl run gs-spring-boot-docker --replicas=2 --labels="run=gs-spring-boot-docker" --image="kokateaniket/gs-spring-boot-docker" --env="server.port=9010" --port=9010**

deployment "gs-spring-boot-docker" created

1. **sudo kubectl expose deployment gs-spring-boot-docker --type=LoadBalancer --name gs-spring-boot-docker**

service "gs-spring-boot-docker" exposed

1. ubuntu@ip-172-31-28-227:~$ **sudo kubectl get svc,deploy**

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE

svc/account-database ClusterIP 10.152.183.151 <none> 3306/TCP 2d

svc/compute-interest-api LoadBalancer 10.152.183.170 a525415a22906... 8080:30666/TCP 2d

svc/default-http-backend ClusterIP 10.152.183.66 <none> 80/TCP 4d

svc/gs-spring-boot-docker LoadBalancer 10.152.183.4 a424949c22b49... 9010:32217/TCP 9s

svc/hello-dotnetsvc LoadBalancer 10.152.183.210 ab1aa4df528ef... 8080:32620/TCP 2d

svc/jenkins LoadBalancer 10.152.183.99 a43d123a3280b... 8080:30620/TCP 4d

svc/kubernetes ClusterIP 10.152.183.1 <none> 443/TCP 4d

NAME DESIRED CURRENT UP-TO-DATE AVAILABLE AGE

deploy/account-database 1 1 1 1 2d

deploy/compute-interest-api 1 1 1 1 2d

deploy/gs-spring-boot-docker 2 2 2 2 1m

deploy/hello-dotnet 1 1 1 1 3d

deploy/jenkins 1 1 1 1 4d

1. ubuntu@ip-172-31-28-227:~$ **sudo kubectl logs deploy/gs-spring-boot-docker**

Found 2 pods, using pod/gs-spring-boot-docker-757c574bf6-ltpzq

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:: Spring Boot :: (v1.5.10.RELEASE)

2018-03-19 07:42:52.346 INFO 7 --- [ main] hello.GsSpringBootDockerApplication : Starting GsSpringBootDockerApplication v0.1.0 on gs-spring-boot-docker-757c574bf6-ltpzq with PID 7 (/app.jar started by root in /)

2018-03-19 07:42:52.349 INFO 7 --- [ main] hello.GsSpringBootDockerApplication : No active profile set, falling back to default profiles: default

2018-03-19 07:42:52.417 INFO 7 --- [ main] ationConfigEmbeddedWebApplicationContext : Refreshing org.springframework.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext@6d5380c2: startup date [Mon Mar 19 07:42:52 UTC 2018]; root of context hierarchy

2018-03-19 07:42:53.550 INFO 7 --- [ main] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat initialized with port(s): 9010 (http)

2018-03-19 07:42:53.561 INFO 7 --- [ main] o.apache.catalina.core.StandardService : Starting service [Tomcat]

2018-03-19 07:42:53.562 INFO 7 --- [ main] org.apache.catalina.core.StandardEngine : Starting Servlet Engine: Apache Tomcat/8.5.27

2018-03-19 07:42:53.638 INFO 7 --- [ost-startStop-1] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext

2018-03-19 07:42:53.639 INFO 7 --- [ost-startStop-1] o.s.web.context.ContextLoader : Root WebApplicationContext: initialization completed in 1224 ms

2018-03-19 07:42:53.733 INFO 7 --- [ost-startStop-1] o.s.b.w.servlet.ServletRegistrationBean : Mapping servlet: 'dispatcherServlet' to [/]

2018-03-19 07:42:53.736 INFO 7 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'characterEncodingFilter' to: [/\*]

2018-03-19 07:42:53.737 INFO 7 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'hiddenHttpMethodFilter' to: [/\*]

2018-03-19 07:42:53.737 INFO 7 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'httpPutFormContentFilter' to: [/\*]

2018-03-19 07:42:53.737 INFO 7 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'requestContextFilter' to: [/\*]

2018-03-19 07:42:53.994 INFO 7 --- [ main] s.w.s.m.m.a.RequestMappingHandlerAdapter : Looking for @ControllerAdvice: org.springframework.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext@6d5380c2: startup date [Mon Mar 19 07:42:52 UTC 2018]; root of context hierarchy

2018-03-19 07:42:54.055 INFO 7 --- [ main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{[/]}" onto public java.lang.String hello.GsSpringBootDockerApplication.home()

2018-03-19 07:42:54.058 INFO 7 --- [ main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{[/error],produces=[text/html]}" onto public org.springframework.web.servlet.ModelAndView org.springframework.boot.autoconfigure.web.BasicErrorController.errorHtml(javax.servlet.http.HttpServletRequest,javax.servlet.http.HttpServletResponse)

2018-03-19 07:42:54.058 INFO 7 --- [ main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "{[/error]}" onto public org.springframework.http.ResponseEntity<java.util.Map<java.lang.String, java.lang.Object>> org.springframework.boot.autoconfigure.web.BasicErrorController.error(javax.servlet.http.HttpServletRequest)

2018-03-19 07:42:54.094 INFO 7 --- [ main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/webjars/\*\*] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]

2018-03-19 07:42:54.094 INFO 7 --- [ main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/\*\*] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]

2018-03-19 07:42:54.121 INFO 7 --- [ main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/\*\*/favicon.ico] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]

2018-03-19 07:42:54.215 INFO 7 --- [ main] o.s.j.e.a.AnnotationMBeanExporter : Registering beans for JMX exposure on startup

2018-03-19 07:42:54.258 INFO 7 --- [ main] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat started on port(s): 9010 (http)

2018-03-19 07:42:54.262 INFO 7 --- [ main] hello.GsSpringBootDockerApplication : Started GsSpringBootDockerApplication in 2.239 seconds (JVM running for 2.612)

ubuntu@ip-172-31-28-227:~$

1. Go to kubernetes dashboard -> servives -> Locate the service for gs-spring-boot-docker and click on External Endpoints to see the output
2. To run springboot container only on docker and not on kubernetes, use below command on docker:
3. ubuntu@ip-172-31-81-185:~/gs-spring-boot-docker$ **sudo docker run -d -p 9010:9010 -e "server.port=9010" -e "person.name=TestPerson" kokateaniket/gs-spring-boot-docker**

b4f3923391b96f2a12f8980c0b78d03b8b74fe43a0292104bea60c520550ca64

ubuntu@ip-172-31-81-185:~/gs-spring-boot-docker$ **sudo docker ps**

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

b4f3923391b9 kokateaniket/gs-spring-boot-docker "/bin/sh -c 'java ..." 5 seconds ago Up 5 seconds 0.0.0.0:9010->9010/tcp sharp\_shirley

ubuntu@ip-172-31-81-185:~/gs-spring-boot-docker$ **curl http://localhost:9010/**

Hello Docker World.....TestPerson, port=9010

ubuntu@ip-172-31-81-185:~/gs-spring-boot-docker$