

Learning Map

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| | Ebooks | docker | https://www.webcodegeeks.com/wp-content/uploads/2016/12/Docker-Containerization-Cookbook.pdf https://www.tutorialspoint.com/docker/docker_tutorial.pdf |
| | Docker | install | https://docs.docker.com/engine/installation/linux/docker-ce/ubuntu/#install-using-the-repository |
| | Compose | install | https://docs.docker.com/compose/install/ |
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| | Docker | hello | https://docs.docker.com/compose/gettingstarted/#prerequisites |
| | | image | https://www.katacoda.com/courses/docker/create-nginx-static-web-server https://prakhhar.me/docker-curriculum/ |
| | | Private registry | https://www.tutorialspoint.com/docker/docker_private_registries.htm |
| | | Public registry | https://hub.docker.com/ https://www.tutorialspoint.com/docker/docker_public_repositories.htm |
| | | Compose | https://blog.hypriot.com/post/docker-compose-nodejs-haproxy/ |
| | | networking | https://docs.docker.com/engine/userguide/networking/#default-networks |
| | | swarm | https://docs.docker.com/engine/swarm/stack-deploy/#create-the-example-application https://opsnotice.xyz/build-swarm-cluster/ compose https://blog.couchbase.com/deploy-docker-compose-services-swarm/ issue https://github.com/moby/moby/issues/31561 https://github.com/moby/moby/pull/30781 |
| | | swarm-load balance | https://docs.docker.com/docker-cloud/getting-started/deploy-app/9_load-balance_the_service/ https://www.katacoda.com/courses/docker-orchestration/load-balance-service-discovery-swarm-mode |

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| | | kubernetes | https://docs.microsoft.com/en-us/azure/container-service/kubernetes/container-service-kubernetes-walkthrough https://docs.microsoft.com/en-us/azure/container-service/container-service-kubernetes-load-balancing https://www.iancollington.com/getting-started-kubernetes-on-aws/ |
| | | Security | |
| | | Config | https://dantehranian.wordpress.com/2015/03/25/how-should-i-get-application-configuration-into-my-docker-containers/ <pre>docker run -p 8080:8080 -e "servername=localhost" getmub/todo:v1</pre> https://docs.docker.com/compose/environment-variables/#configuring-compose-using-environment-variables Docker Config https://docs.docker.com/engine/swarm/configs/#advanced-example-use-configs-with-a-nginx-service |
| | Docker Machine | Azure | https://www.digitalocean.com/community/tutorials/how-to-create-a-cluster-of-docker-containers-with-docker-swarm-and-digitalocean-on-ubuntu-16-04 http://www.thegeekstuff.com/2016/02/docker-machine-create-generic/ https://docs.microsoft.com/en-us/azure/virtual-machines/linux/docker-machine |
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| | Springbot | Gradle | https://github.com/Transmode/gradle-docker https://geowarin.github.io/spring-boot-app-in-docker-image.html https://spring.io/guides/gs/spring-boot-docker/ http://blog.monkey.codes/dockerize-a-spring-boot-application/ |
| | Errors | permission | Got permission denied while trying to connect to the Docker daemon socket at <code>unix:///var/run/docker.sock</code> Add your user to the <code>docker</code> group. \$ <code>sudo usermod -aG docker \$USER</code> Log out and log back in so that your group membership is re-evaluated. |
| | Tools | putty | https://blogs.msdn.microsoft.com/uk_faculty_connection/2016/09/23/getting-started-with-docker-and-container-services/ |

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| e2e | | https://programmaticponderings.com/2015/09/07/building-and-deploying-a-multi-container-java-spring-mongodb-application-using-docker/ http://dev-pages.info/how-to-run-spring-boot-and-mongodb-in-docker-container/ http://blog.monkey.codes/dockerize-a-spring-boot-application/ https://github.com/garystafford/spring-music-docker |
| videos | | https://www.youtube.com/playlist?list=PLkA60AVN3hh_6cAz8TUGtkYbJSL2bdZ4h |

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| SpringBoot with MongoDB | http://www.dineshonjava.com/2016/08/spring-boot-and-mongodb-in-rest-application.html |
| ZUUL | https://spring.io/guides/gs/routing-and-filtering/ http://www.baeldung.com/spring-rest-with-zuul-proxy |
| Eureka | https://spring.io/guides/gs/service-registration-and-discovery/ http://www.baeldung.com/spring-cloud-netflix-eureka https://spring.io/blog/2015/07/14/microservices-with-spring |
| Config | http://www.baeldung.com/spring-cloud-configuration https://dzone.com/articles/microservices-and-spring-cloud-config-server https://www.iancollington.com/centralised-configuration-using-spring-boot/ <p>If you don't want to use git as a repository, then you need to configure the spring cloud server to have spring.profiles.active=native</p> https://nofluffjuststuff.com/magazine/2016/06/cloud-native-spring-configuring-microservices https://spring.io/guides/gs/centralized-configuration/ |

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| Actuator | http://www.baeldung.com/spring-boot-actuators http://www.dineshonjava.com/2016/08/spring-boot-actuator-complete-guide.html |
| Hystrix | https://spring.io/guides/gs/circuit-breaker/ https://blog.de-swaef.eu/the-netflix-stack-using-spring-boot-part-2-hystrix/ https://exampleddriven.wordpress.com/2016/07/05/spring-cloud-hystrix-example/ |
| grpc | https://github.com/grpc/grpc-java/blob/master/README.md https://github.com/caio/grpc-java-gradle-hello-world https://developers.google.com/protocol-buffers/docs/javatutorial |

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| <code>docker --version</code> | |
| <code>docker-compose --version</code> | |
| <code>docker-machine --version</code> | |
| <code>docker ps</code> | |
| <code>docker run -d -p 80:80 --name webserver nginx</code> | -d option makes the container run in the background. |
| <code>docker stop webserver</code> | |
| <code>docker start webserver</code> | |
| <code>docker rm -f webserver</code> | |
| <code>docker rmi nginx</code> | |
| <code>docker image ls</code> | |
| <code>docker login</code> | |
| <code>-d</code> | detached mode. makes the container run in the background. |

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| <code>docker run -d -p 80:80 getmub/gspring-boot-docker</code> | |
| <code>docker ps -a</code> | history |
| <code>docker inspect --format='{{.Name}} - {{range .NetworkSettings.Networks}}{{.IPAddress}}{{end}}' \$(docker ps -aq)</code> | Show all containers IP addresses: |
| | <i>If you do not use <code>-P</code> (which publishes all exposed ports of the container) or <code>-p host_port:container_port</code> (which publishes a specific port), the IP packets will not be routable to the container outside of the host.</i> |
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| <code>docker restart a842945e2414</code> | |
| <code>docker kill a842945e2414</code> | |
| <code>docker-machine create -d generic --generic-ip-address 34.201.150.188 --generic-ssh-key ~/.ssh/MyKeyPair.pem --generic-ssh-user ubuntu --generic-ssh-port 22 qa-db</code> | |
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| <code>docker run --network=<NETWORK></code> | |
| <code>ssh -i ~/.ssh/MyKeyPair.pem ubuntu@34.229.90.232</code> | |
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| <code>mongo</code> | |

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| <ul style="list-style-type: none"> • docker commit: Creates a image from a container; • docker kill: force kill a running container; • docker restart: restart a container; | |

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grpc
buildscript {
    ext {
        springBootVersion = '1.5.6.RELEASE'
    }
    repositories {
        mavenCentral()
    }
    dependencies {
        classpath("org.springframework.boot:spring-boot-gradle-plugin:${springBootVersion}")
        classpath 'com.google.protobuf:protobuf-gradle-plugin:0.8.1'
    }
}

apply plugin: 'java'
apply plugin: 'eclipse'
apply plugin: 'org.springframework.boot'
apply plugin: 'com.google.protobuf'

version = '0.0.1-SNAPSHOT'
sourceCompatibility = 1.8

repositories {
    mavenCentral()
}

dependencies {
    compile('org.springframework.boot:spring-boot-starter')
    compile 'io.grpc:grpc-netty:1.4.0'
    compile 'io.grpc:grpc-protobuf:1.4.0'
    compile 'io.grpc:grpc-stub:1.4.0'
    testCompile('org.springframework.boot:spring-boot-starter-test')
}

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