# Container Orchestration

Auto Scaling

Service Discovery

Load Balancer

Self Healing

Zero Downtime Deployment

# Kubernetes

kubectl create deployment hello-world-rest-api --image=in28min/hello-world-rest-api:0.0.1.RELEASE -> deploy de uma imagem docker

kubectl expose deployment hello-world-rest-api --type=LoadBalancer --port=8080 -> expor o serviço

Comandos utilizados no treinamento de kubernetes

1. docker run -p 8080:8080 in28min/hello-world-rest-api:0.0.1.RELEASE
3. kubectl create deployment hello-world-rest-api --image=in28min/hello-world-rest-api:0.0.1.RELEASE
4. kubectl expose deployment hello-world-rest-api --type=LoadBalancer --port=8080
5. kubectl scale deployment hello-world-rest-api --replicas=3
6. kubectl delete pod hello-world-rest-api-58ff5dd898-62l9d
7. kubectl autoscale deployment hello-world-rest-api --max=10 --cpu-percent=70
8. kubectl edit deployment hello-world-rest-api #minReadySeconds: 15
9. kubectl set image deployment hello-world-rest-api hello-world-rest-api=in28min/hello-world-rest-api:0.0.2.RELEASE
11. gcloud container clusters get-credentials in28minutes-cluster --zone us-central1-a --project solid-course-258105
12. kubectl create deployment hello-world-rest-api --image=in28min/hello-world-rest-api:0.0.1.RELEASE
13. kubectl expose deployment hello-world-rest-api --type=LoadBalancer --port=8080
14. kubectl set image deployment hello-world-rest-api hello-world-rest-api=DUMMY\_IMAGE:TEST
15. kubectl get events --sort-by=.metadata.creationTimestamp
16. kubectl set image deployment hello-world-rest-api hello-world-rest-api=in28min/hello-world-rest-api:0.0.2.RELEASE
17. kubectl get events --sort-by=.metadata.creationTimestamp
18. kubectl get componentstatuses
19. kubectl get pods --all-namespaces
21. kubectl get events
22. kubectl get pods
23. kubectl get replicaset
24. kubectl get deployment
25. kubectl get service
27. kubectl get pods -o wide
29. kubectl explain pods
30. kubectl get pods -o wide
32. kubectl describe pod hello-world-rest-api-58ff5dd898-9trh2
34. kubectl get replicasets
35. kubectl get replicaset
37. kubectl scale deployment hello-world-rest-api --replicas=3
38. kubectl get pods
39. kubectl get replicaset
40. kubectl get events
41. kubectl get events --sort.by=.metadata.creationTimestamp
43. kubectl get rs
44. kubectl get rs -o wide
45. kubectl set image deployment hello-world-rest-api hello-world-rest-api=DUMMY\_IMAGE:TEST
46. kubectl get rs -o wide
47. kubectl get pods
48. kubectl describe pod hello-world-rest-api-85995ddd5c-msjsm
49. kubectl get events --sort-by=.metadata.creationTimestamp
51. kubectl set image deployment hello-world-rest-api hello-world-rest-api=in28min/hello-world-rest-api:0.0.2.RELEASE
52. kubectl get events --sort-by=.metadata.creationTimestamp
53. kubectl get pods -o wide
54. kubectl delete pod hello-world-rest-api-67c79fd44f-n6c7l
55. kubectl get pods -o wide
56. kubectl delete pod hello-world-rest-api-67c79fd44f-8bhdt
58. gcloud container clusters get-credentials in28minutes-cluster --zone us-central1-c --project solid-course-258105
59. docker login
60. docker push in28min/mmv2-currency-exchange-service:0.0.11-SNAPSHOT
61. docker push in28min/mmv2-currency-conversion-service:0.0.11-SNAPSHOT
63. kubectl create deployment currency-exchange --image=in28min/mmv2-currency-exchange-service:0.0.11-SNAPSHOT
64. kubectl expose deployment currency-exchange --type=LoadBalancer --port=8000
65. kubectl get svc
66. kubectl get services
67. kubectl get pods
68. kubectl get po
69. kubectl get replicaset
70. kubectl get rs
71. kubectl get all
73. kubectl create deployment currency-conversion --image=in28min/mmv2-currency-conversion-service:0.0.11-SNAPSHOT
74. kubectl expose deployment currency-conversion --type=LoadBalancer --port=8100
76. kubectl get svc --watch
78. kubectl get deployments
80. kubectl get deployment currency-exchange -o yaml >> deployment.yaml
81. kubectl get service currency-exchange -o yaml >> service.yaml
83. kubectl diff -f deployment.yaml
84. kubectl apply -f deployment.yaml
86. kubectl delete all -l app=currency-exchange
87. kubectl delete all -l app=currency-conversion
89. kubectl rollout history deployment currency-conversion
90. kubectl rollout history deployment currency-exchange
91. kubectl rollout undo deployment currency-exchange --to-revision=1
93. kubectl logs currency-exchange-9fc6f979b-2gmn8
94. kubectl logs -f currency-exchange-9fc6f979b-2gmn8
96. kubectl autoscale deployment currency-exchange --min=1 --max=3 --cpu-percent=5
97. kubectl get hpa
99. kubectl top pod
100. kubectl top nodes
101. kubectl get hpa
102. kubectl delete hpa currency-exchange
104. kubectl create configmap currency-conversion --from-literal=CURRENCY\_EXCHANGE\_URI=http://currency-exchange
105. kubectl get configmap
107. kubectl get configmap currency-conversion -o yaml >> configmap.yaml
109. watch -n 0.1 curl http://34.66.241.150:8100/currency-conversion-feign/from/USD/to/INR/quantity/10
111. docker push in28min/mmv2-currency-conversion-service:0.0.12-SNAPSHOT
112. docker push in28min/mmv2-currency-exchange-service:0.0.12-SNAPSHOT