```
 1  # Source: https://gist.github.com/c9e05ce1b744c0aad5d10ee5158099fa
 2
 3  ################################
 4  # Preparing For The Exercises #
 5  ################################
 6
 7  git clone \
 8      https://github.com/vfarcic/devops-catalog-code.git
 9
10  cd devops-catalog-code
11
12  git pull
13
14  # Docker Desktop (docker.sh):
    https://gist.github.com/9f2ee2be882e0f39474d1d6fb1b63b83
15  # Minikube (minikube.sh): https://gist.github.com/2a6e5ad588509f43baa94cbdf40d0d16
16  # GKE (gke.sh): https://gist.github.com/68e8f17ebb61ef3be671e2ee29bfea70
17  # EKS (eks.sh): https://gist.github.com/200419b88a75f7a51bfa6ee78f0da592
18  # AKS (aks.sh): https://gist.github.com/0e28b2a9f10b2f643502f80391ca6ce8
19
20  # Make sure that you have Helm CLI v3+ installed
21
22  cd helm
23
24  #########################
25  # Creating Helm Charts #
26  #########################
27
28  helm create my-app
29
30  ls -1 my-app
31
32  rm -rf my-app
33
34  ls -1 go-demo-9
35
36  cat go-demo-9/Chart.yaml
37
38  ls -1 go-demo-9/templates
39
40  cat go-demo-9/templates/deployment.yaml
41
42  cat go-demo-9/values.yaml
43
44  cat go-demo-9/templates/ingress.yaml
45
46  cat go-demo-9/values.yaml
47
48  cat go-demo-9/templates/hpa.yaml
49
50  cat go-demo-9/values.yaml
51
52  ###################################
53  # Adding Application Dependencies #
54  ###################################
55
56  cat go-demo-9/requirements.yaml
57
58  helm repo add stable \
59      https://kubernetes-charts.storage.googleapis.com
```

```
 60
 61 helm search repo mongodb
 62
 63 helm show readme stable/mongodb
 64
 65 helm repo add bitnami \
 66     https://charts.bitnami.com/bitnami
 67
 68 helm repo list
 69
 70 helm search repo mongodb
 71
 72 cat go-demo-9/requirements.yaml
 73
 74 helm show values bitnami/mongodb \
 75   --version 7.13.0
 76
 77 cat go-demo-9/values.yaml
 78
 79 ##########################################
 80 # Deploying Applications To Production #
 81 ##########################################
 82
 83 kubectl create namespace production
 84
 85 helm dependency list go-demo-9
 86
 87 helm dependency update go-demo-9
 88
 89 helm dependency list go-demo-9
 90
 91 helm --namespace production \
 92     upgrade --install \
 93     go-demo-9 go-demo-9 \
 94     --wait \
 95     --timeout 10m
 96
 97 helm --namespace production list
 98
 99 kubectl --namespace production \
100     get ingresses
101
102 curl -H "Host: go-demo-9.acme.com" \
103     "http://$INGRESS_HOST"
104
105 kubectl --namespace production \
106     get hpa
107
108 kubectl get persistentvolumes
109
110 #################################################################
111 # Deploying Applications To Development And Preview Environments #
112 #################################################################
113
114 export GH_USER=[...]
115
116 kubectl create namespace $GH_USER
117
118 cat go-demo-9/values.yaml
119
```

```
120 cat dev/values.yaml
121
122 export ADDR=$GH_USER.go-demo-9.acme.com
123
124 helm --namespace $GH_USER \
125     upgrade --install \
126     --values dev/values.yaml \
127     --set ingress.host=$ADDR \
128     go-demo-9 go-demo-9 \
129     --wait \
130     --timeout 10m
131
132 kubectl --namespace $GH_USER \
133     get ingresses
134
135 curl -H "Host: $ADDR" \
136     "http://$INGRESS_HOST"
137
138 kubectl --namespace $GH_USER \
139     get hpa
140
141 kubectl --namespace $GH_USER \
142     get pods
143
144 kubectl get persistentvolumes
145
146 helm --namespace $GH_USER \
147     delete go-demo-9
148
149 kubectl delete namespace $GH_USER
150
151 #########################################################################
152 # Deploying Applications To Permanent Non-Production Environments #
153 #########################################################################
154
155 kubectl create namespace staging
156
157 cat staging/values.yaml
158
159 helm --namespace staging \
160     upgrade --install \
161     --values staging/values.yaml \
162     go-demo-9 go-demo-9 \
163     --wait \
164     --timeout 10m
165
166 kubectl --namespace staging \
167     get ingresses
168
169 curl -H "Host: staging.go-demo-9.acme.com" \
170     "http://$INGRESS_HOST"
171
172 kubectl --namespace staging \
173     get hpa
174
175 kubectl get persistentvolumes
176
177 #####################################
178 # Packaging And Deploying Releases #
179 #####################################
```

```
180
181  git checkout -b my-new-feature
182
183  cat go-demo-9/Chart.yaml
184
185  cat go-demo-9/Chart.yaml \
186      | sed -e "s@version: 0.0.1@version: 0.0.2@g" \
187      | sed -e "s@appVersion: 0.0.1@appVersion: 0.0.2@g" \
188      | tee go-demo-9/Chart.yaml
189
190  cat go-demo-9/values.yaml
191
192  cat go-demo-9/values.yaml \
193      | sed -e "s@tag: 0.0.1@tag: 0.0.2@g" \
194      | tee go-demo-9/values.yaml
195
196  helm lint go-demo-9
197
198  helm package go-demo-9
199
200  helm --namespace production \
201      upgrade --install \
202      go-demo-9 go-demo-9-0.0.2.tgz \
203      --wait \
204      --timeout 10m
205
206  helm --namespace production list
207
208  helm --namespace production \
209      get all go-demo-9
210
211  curl -H "Host: go-demo-9.acme.com" \
212      "http://$INGRESS_HOST"
213
214  ##########################
215  # Rolling Back Releases #
216  ##########################
217
218  helm --namespace production \
219      history go-demo-9
220
221  helm --namespace production \
222      rollback go-demo-9
223
224  helm --namespace production \
225      history go-demo-9
226
227  helm --namespace production \
228      status go-demo-9
229
230  curl -H "Host: go-demo-9.acme.com" \
231      "http://$INGRESS_HOST"
232
233  ############################
234  # Destroying The Resources #
235  ############################
236
237  git stash
238
239  git checkout master
```

```
240
241 git branch -d my-new-feature
242
243 kubectl delete namespace staging
244
245 kubectl delete namespace production
246
247 cd ../
248
249 cd ../
250
```