

Git Hub Link:

<https://github.com/akterfaruq/zero-downtime>

Docker Hub Image Link:

https://hub.docker.com/repositories/akterfaruq/_gl=1*178ckvj*_gcl_au*MTExNDUzOTA4My4xNzY0ODI3OTI5*_ga*MjgxNDUzMzk1LjE3NTc0MzgwNTA.*_ga_XJWPQMJYHQ*czE3NjQ5OTI5OTEkbzExJGcxJHQxNzY0OTkyOTk4JGo1MyRsMCRoMA..

The screenshot shows the Docker Hub interface. The top navigation bar has 'Explore' and 'My Hub' tabs, with 'My Hub' being active. A search bar says 'Search Docker Hub'. Below the sidebar, which includes 'Repositories', 'Hardened Images', 'Collaborations', 'Settings', 'Default privacy', 'Notifications', 'Billing', and 'Usage', the main content area is titled 'Repositories'. It says 'All repositories within the akterfaruq namespace.' A search bar for 'Search by repository name' and a dropdown for 'All content' are present. A blue button 'Create a repository' is on the right. The table lists the repository 'akterfaruq/zero-downtime-demo' with details: Name, Last Pushed (1 day ago), Contains (IMAGE), and Visibility (Public).

Blue Green Deployemnt:

```
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl apply -f ./k8s/blue-deployment.yaml
deployment.apps/web-blue created
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl apply -f ./k8s/green-deployment.yaml
deployment.apps/web-green created
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl apply -f ./k8s/service-blue-green.yaml
service/web created
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl apply -f ./k8s/service-blue-green.yaml
service/web unchanged
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl port-forward svc/web 8080:80
ubectl : The term 'ubectl' is not recognized as the name of a cmdlet, function, script file, or operable program.
Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
+ ubectl port-forward svc/web 8080:80
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (ubectl:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl port-forward svc/web 8080:80
Forwarding from 127.0.0.1:8080 -> 3000
Forwarding from [::1]:8080 -> 3000
Handling connection for 8080
Handling connection for 8080
```

```
← → ⌂ ⚡ localhost:8080
```

My App — Version v1

```
← → ⌂ ⚡ localhost:8080
```

My App — Version v2

Rolling Update Deployment:

```
← → ⌂ ⚡ localhost:8081
```

My App — Version v1

```
% E:\Ostdad\Projects\Project_10_Zero_Downtime> kubectl set image deployment/web-rolling web=your_dockerhub_username/zero-downtime-demo:latest
deployment.apps/web-rolling image updated
% E:\Ostdad\Projects\Project_10_Zero_Downtime> kubectl rollout status deployment/web-rolling
Waiting for deployment "web-rolling" rollout to finish: 1 out of 3 new replicas have been updated...
error: deployment "web-rolling" exceeded its progress deadline
PS E:\Ostdad\Projects\Project_10_Zero_Downtime> kubectl set image deployment/web-rolling web=akterfarus/zero-downtime-demo:latest
deployment.apps/web-rolling image updated
% E:\Ostdad\Projects\Project_10_Zero_Downtime> kubectl rollout status deployment/web-rolling
deployment "web-rolling" successfully rolled out
PS E:\Ostdad\Projects\Project_10_Zero_Downtime> kubectl get pods -l trackerrolling --wide
NAME          READY   STATUS    RESTARTS   AGE   IP           NODE   NOMINATED NODE   READINESS GATES
web-rolling-5cf0e9d460-kkt7g  1/1   Running   0          22m  10.244.8.6  desktop-control-plane  <none>        <none>
web-rolling-5cf0e9d460-tgx2f  1/1   Running   0          22m  10.244.8.7  desktop-control-plane  <none>        <none>
web-rolling-5cf0e9d460-zmgd  1/1   Running   0          22m  10.244.8.5  desktop-control-plane  <none>        <none>
PS E:\Ostdad\Projects\Project_10_Zero_Downtime>
```

Canary Deployment:

localhost:8082

My App — Version v1

```
secret/argo-rollouts-notification-secret unchanged
service/argo-rollouts-metrics unchanged
deployment.apps/argo-rollouts configured
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl get crds | Select-String rollouts
rollouts.argoproj.io                               2025-12-05T16:28:25Z

PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl apply -f .\k8s\canary-rollout.yaml
rollout.argoproj.io/web-canary created
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl apply -f .\k8s\canary-service.yaml
service/web-canary-svc created
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl get rollouts
NAME      DESIRED   CURRENT   UP-TO-DATE   AVAILABLE   AGE
web-canary  4         4         4           4           73s
PS E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl argo rollouts get rollout web-canary
Name:          web-canary
Namespace:     default
Status:        Healthy
Strategy:     Canary
Step:          5/5
SetWeight:    100
ActualWeight: 100
Images:       akterfaruq/zero-downtime-demo:latest (stable)
Replicas:
Desired:     4
Current:     4
Updated:     4
Ready:       4
Available:   4

NAME                           KIND      STATUS   AGE   INFO
web-canary                     Rollout   Healthy 107s
└─# revision:1
   └─# web-canary-f56d7b8bf
      └─# ReplicaSet   Healthy 107s stable
         └─# web-canary-f56d7b8bf-62n9n Pod   Running 107s ready:1/1
         └─# web-canary-f56d7b8bf-czcxm Pod   Running 107s ready:1/1
         └─# web-canary-f56d7b8bf-gzx4p Pod   Running 107s ready:1/1
         └─# web-canary-f56d7b8hf-1769r Pod   Running 107s ready:1/1
```

```
  └─ Web-Canary-f56d7b8bf-c2c9m Pod      TERMINATING 4m  ready:1/1
$ E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl set image rollout/web-canary web=akterfaruq/zero-downtime-demo:latest
error: no kind "Rollout" is registered for version "argoproj.io/v1alpha1" in scheme "pkg/scheme/scheme.go:28"
$ E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl argo rollouts set image web-canary web=akterfaruq/zero-downtime-demo:latest
rollout "web-canary" image updated
$ E:\Ostad\Projects\Project_10_Zero_Downtime> kubectl argo rollouts get rollout web-canary --watch
Name:          web-canary
Namespace:     default
Status:        Paused
Message:       CanaryPauseStep
Strategy:     Canary
  Step:        1/5
  SetWeight:   10
  ActualWeight: 20
Images:       akterfaruq/zero-downtime-demo:latest (canary)
                  akterfaruq/zero-downtime-demo:v2 (stable)
Replicas:
  Desired:    4
  Current:    5
  Updated:    1
  Ready:      5
  Available:  5

NAME                      KIND     STATUS   AGE    INFO
# web-canary               Rollout  Paused  7m25s
# revision:3
  └─ web-canary-f56d7b8bf ReplicaSet  Healthy  7m25s  canary
    └─ web-canary-f56d7b8bf-rc58q Pod  Running  18s   ready:1/1
# revision:2
  └─ web-canary-954fb64cb ReplicaSet  Healthy  4m50s  stable
    ├─ web-canary-954fb64cb-n8gj7 Pod  Running  4m50s  ready:1/1
    ├─ web-canary-954fb64cb-h2p8v Pod  Running  4m10s  ready:1/1
    ├─ web-canary-954fb64cb-5p86x Pod  Running  3m38s  ready:1/1
    └─ web-canary-954fb64cb-nf56p Pod  Running  3m38s  ready:1/1
Name:          web-canary
Namespace:     default
Status:        Paused
Message:       CanaryPauseStep
Strategy:     Canary
  Step:        1/5
  SetWeight:   10
  ActualWeight: 20
Images:       akterfaruq/zero-downtime-demo:latest (canary)
```