

MCA DevOps Test Solution Outputs

Blue-Green Deployment

Description:

Blue-Green strategy switches traffic between two identical environments.

Steps

1. Deploy initial (Blue) version. (v1)
2. Deploy new (Green) version. (v2)
3. Switch traffic to Green by Manual/Automatic Promote.
4. Verify rollout.

```
└ helm upgrade -i frontend -f values.yaml -n default .
Release "frontend" does not exist. Installing it now.
NAME: frontend
LAST DEPLOYED: Sat Feb 14 00:34:09 2026
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
1. Get the application URL by running these commands:
  http://mca-devopstest.bnpparibas.com/
└
  └ kubectl get all -n default |grep frontend
    pod/frontend-79464f57b5-6zgrz     1/1   Running   0      2m39s
    service/frontend                  ClusterIP  10.100.120.104 <none>  80/TCP   2m39s
    service/frontend-preview          ClusterIP  10.100.115.116 <none>  80/TCP   2m39s
    replicaset.apps/frontend-79464f57b5 1         1         1      2m39s
    horizontalpodautoscaler.autoscaling/frontend   Rollout/frontend  12m/80   1       10      1      2m39s
└
  └ kubectl get pods -n default -o yaml|grep frontend |grep image:
    - image: netturi19/frontend:v1
      image: docker.io/netturi19/frontend:v1
└
  └ helm upgrade -i frontend -f values.yaml -n default .
Release "frontend" has been upgraded. Happy Helming!
NAME: frontend
LAST DEPLOYED: Sat Feb 14 00:38:15 2026
NAMESPACE: default
STATUS: deployed
REVISION: 2
TEST SUITE: None
NOTES:
1. Get the application URL by running these commands:
  http://mca-devopstest.bnpparibas.com/
└
  └ kubectl get all -n default |grep frontend
    pod/frontend-79464f57b5-6zgrz     1/1   Running   0      5m12s
    pod/frontend-84b4446b-tslgz      1/1   Running   0      67s
    service/frontend                 ClusterIP  10.100.120.104 <none>  80/TCP   5m12s
    service/frontend-preview          ClusterIP  10.100.115.116 <none>  80/TCP   5m12s
    replicaset.apps/frontend-79464f57b5 1         1         1      5m12s
    replicaset.apps/frontend-84b4446b 1         1         1      67s
    horizontalpodautoscaler.autoscaling/frontend   Rollout/frontend  10m/80   1       10      1
└
  └ kubectl get pods -n default -o yaml|grep frontend |grep image:
    - image: netturi19/frontend:v1
      image: docker.io/netturi19/frontend:v1
    - image: netturi19/frontend:v2
      image: docker.io/netturi19/frontend:v2
      
```

BLUE

GREEN

```

└─ kubectl argo rollouts get rollout frontend
  Name:      frontend
  Namespace: default
  Status:    ⚡ Paused
  Message:   BlueGreenPause
  Strategy:  BlueGreen
  Images:    netturi19/frontend:v1 (stable, active)
             netturi19/frontend:v2 (preview)

  Replicas:
    Desired: 1
    Current: 2
    Updated: 1
    Ready:   1
    Available: 1

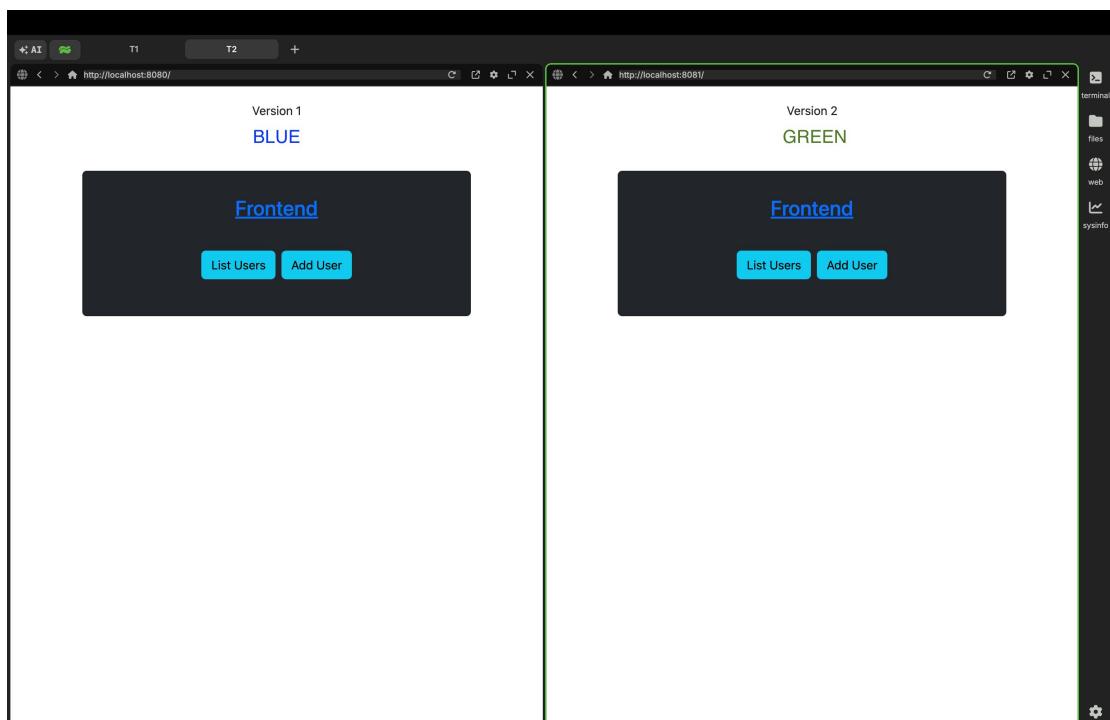
  NAME          KIND  STATUS  AGE  INFO
  ⬤ frontend   Rollout  ⚡ Paused  44m
    # revision:2
      └─ frontend-84b4446b
        └─ frontend-84b4446b-tslgz
          Pod     ✓ Healthy  40m  preview
    # revision:1
      └─ frontend-79464f57b5
        └─ frontend-79464f57b5-6zgrz
          Pod     ✓ Healthy  44m  stable,active
    ↵ [apple] ~/Documents/mca-devops-test/frontend/helm/main ?8
    kubectl argo rollouts promote frontend

  rollout 'frontend' promoted
  ↵ [apple] ~/Documents/mca-devops-test/frontend/helm/main ?8
  kubectl argo rollouts get rollout frontend
  Name:      frontend
  Namespace: default
  Status:    ✓ Healthy
  Strategy:  BlueGreen
  Images:    netturi19/frontend:v1
             netturi19/frontend:v2 (stable, active)

  Replicas:
    Desired: 1
    Current: 2
    Updated: 1
    Ready:   1
    Available: 1

  NAME          KIND  STATUS  AGE  INFO
  ⬤ frontend   Rollout  ✓ Healthy  45m
    # revision:2
      └─ frontend-84b4446b
        └─ frontend-84b4446b-tslgz
          Pod     ✓ Healthy  40m  stable,active
    # revision:1
      └─ frontend-79464f57b5
        └─ frontend-79464f57b5-6zgrz
          Pod     ✓ Healthy  45m  delay:17s
    ↵ [apple] ~/Documents/mca-devops-test/frontend/helm/main ?8
    kubectl get pods -n default -o yaml|grep frontend |grep image:
      - image: netturi19/frontend:v2
        image: docker.io/netturi19/frontend:v2

```



Canary Deployment

Description:

Canary strategy gradually shifts traffic to the new version.

Steps

- Deploy base version.
 - Release canary version.
 - Increase traffic weight.
 - Complete rollout.

```
apple ~ /Documents/mca-devops-test/frontend/helm/frontend ➜ ⌂ P main ?8
helm upgrade -i frontend -f values.yaml -n default .
Release "frontend" does not exist. Installing it now.
NAME: frontend
LAST DEPLOYED: Sat Feb 14 01:26:55 2026
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
1. Get the application URL by running these commands:
  http://mcadevopstest.bnpparibas.com/
apple ~ /Documents/mca-devops-test/frontend/helm/frontend ➜ ⌂ P main ?8
kubectl get all -n default |grep frontend
pod/foreground-79464f57b5-5wxmz      1/1    Running   0        101s
pod/foreground-79464f57b5-k2t1c      1/1    Running   0        101s
pod/foreground-79464f57b5-lp9c6      1/1    Running   0        101s
pod/foreground-79464f57b5-zhcmv     1/1    Running   0        116s
pod/foreground-79464f57b5-zrmvx     1/1    Running   0        101s
service/frontend                   ClusterIP 10.100.42.244 <none>       80/TCP  117s
service/frontend-canary            ClusterIP 10.100.233.85 <none>       80/TCP  117s
replicaset.apps/foreground-79464f57b5 5          5          5        116s
horizontalpodautoscaler.autoscaling/foreground   Rollout/foreground 80m/80  5          10          5          116s

apple ~ /Documents/mca-devops-test/frontend/helm/frontend ➜ ⌂ P main ?8
kubectl get pods -n default -o yaml|grep frontend |grep image:
- image: netturi19/frontend:v1
  image: docker.io/netturi19/frontend:v1

apple ~ /Documents/mca-devops-test/frontend/helm/frontend ➜ ⌂ P main ?8
helm upgrade -i frontend -f values.yaml -n default .
Release "frontend" has been upgraded. Happy Helming!
NAME: frontend
LAST DEPLOYED: Sat Feb 14 01:29:31 2026
NAMESPACE: default
STATUS: deployed
REVISION: 2
TEST SUITE: None
NOTES:
1. Get the application URL by running these commands:
  http://mcadevopstest.bnpparibas.com/
apple ~ /Documents/mca-devops-test/frontend/helm/frontend ➜ ⌂ P main ?8
```

```

~/Documents/mca-devops-test/frontend/helm/frontend ➜ main ?8
kubectl get pods -n default -o yaml|grep frontend |grep image:
- image: nettur19/frontend:v1
  image: docker.io/nettur19/frontend:v1
- image: nettur19/frontend:v2
  image: docker.io/nettur19/frontend:v2

~/Documents/mca-devops-test/frontend/helm/frontend ➜ main ?8
kubectl get pods -n default -o yaml|grep frontend |grep image:
- image: nettur19/frontend:v1
  image: docker.io/nettur19/frontend:v1
- image: nettur19/frontend:v2
  image: docker.io/nettur19/frontend:v2

~/Documents/mca-devops-test/frontend/helm/frontend ➜ main ?8
kubectl get pods -n default -o yaml|grep frontend |grep image:
- image: nettur19/frontend:v2
  image: docker.io/nettur19/frontend:v2

~/Documents/mca-devops-test/frontend/helm/frontend ➜ main ?8
kubectl argo rollouts get rollout frontend
Name:      frontend
Namespace:  default
Status:     ✓ Healthy
Strategy:   Canary
Step:       5/5
SetWeight:  100
ActualWeight: 100
Images:    nettur19/frontend:v2 (stable)
Replicas:
Desired:   5
Current:   5
Updated:   5
Ready:     5
Available: 5

```

NAME	KIND	STATUS	AGE	INFO
frontend	Rollout	✓ Healthy	5m5s	
# revision:2				
└─ frontend-84b4446b	ReplicaSet	✓ Healthy	2m28s	stable
└─ frontend-84b4446b-kgf6	Pod	✓ Running	2m28s	ready:1/1
└─ frontend-84b4446b-vkjqx	Pod	✓ Running	116s	ready:1/1
└─ frontend-84b4446b-fkrhb	Pod	✓ Running	114s	ready:1/1
└─ frontend-84b4446b-zf2lb	Pod	✓ Running	81s	ready:1/1
└─ frontend-84b4446b-n6g9q	Pod	✓ Running	78s	ready:1/1
# revision:1				
└─ frontend-79464f57b5	ReplicaSet	• ScaledDown	5m5s	

Version 1

Frontend

List Users Add User

Version 2

Frontend

List Users Add User

CANARY START

```

~/Documents/mca-devops-test/frontend/helm/frontend ➜ main ?8
kubectl argo rollouts get rollout frontend
Name:      frontend
Namespace:  default
Status:     ✓ Healthy
Strategy:   Canary
Step:       5/5
SetWeight:  100
ActualWeight: 100
Images:    nettur19/frontend:v2 (stable)
Replicas:
Desired:   5
Current:   5
Updated:   5
Ready:     5
Available: 5

```

