

Gitea and ArgoCD are already setup. You can access the same using the respective buttons on the top bar.

Access the Gitea server with below credentials

username: bob

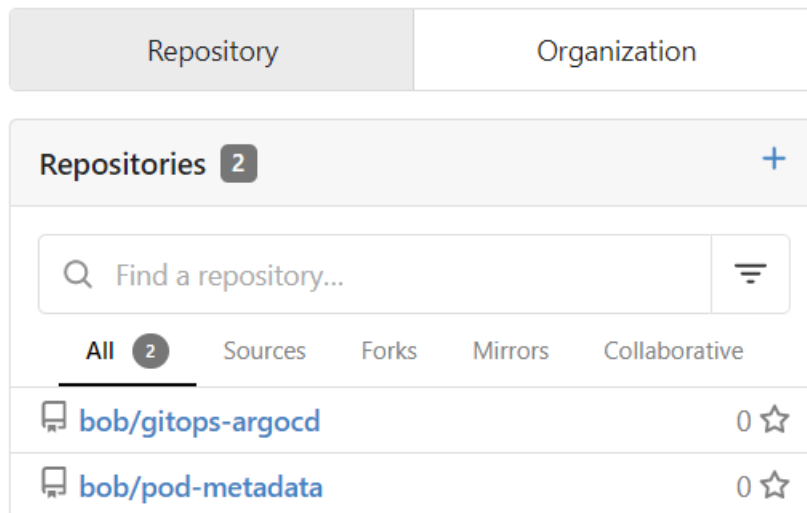
password: bob@123

Access the ArgoCD UI and CLI with below credentials.

User: admin

Password: admin123

Login to the Gitea server and find out how many repositories are there? 2



Create an ArgoCD application as per details mentioned below:

Application Name: git-webhook-app

Project Name: default

Sync Policy: Manual

Sync Options: Auto-create Namespace

Repository URL: <Gitea URL>/bob/gitops-argocd.git

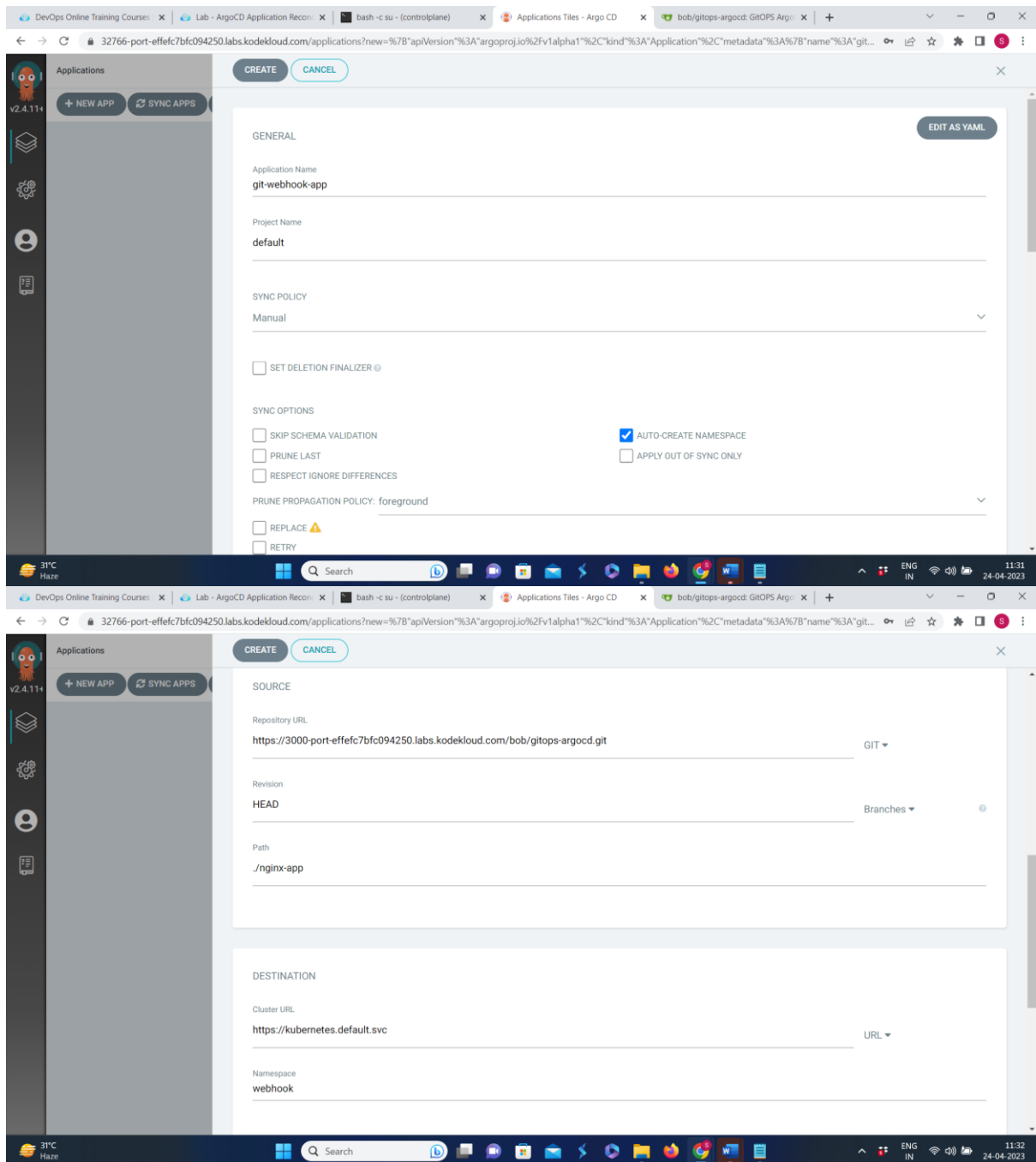
Path: ./nginx-app

Cluster URL: https://kubernetes.default.svc

Namespace: webhook

Follow the below steps, to create a git-webhook-app application:

- Login to the ArgoCD UI.
- Click on + New App.
- Enter git-webhook-app in Application Name
- Enter default in Project Name
- Enter Manual in SYNC POLICY
- Select AUTO-CREATE NAMESPACE under SYNC OPTIONS
- Enter <Gitea URL>/bob/gitops-argocd.git in Repository URL
- Enter ./nginx-app in Path
- Enter https://kubernetes.default.svc in Cluster URL
- Enter webhook in Namespace
- Finally click on CREATE



Synchronize the git-webhook-app application and access the the app using NginxApp button on the top bar.
Run the below command, to synchronize git-webhook-app application:
argocd app sync git-webhook-app

```
controlplane ~ → argocd app sync git-webhook-app
```



TIMESTAMP	GROUP	KIND	NAMESPACE	NAME	STATUS	HEALTH	HOOK	MESSAGE
2023-04-24T06:03:13+00:00		Service	webhook	nginx-service	OutOfSync	Missing		
2023-04-24T06:03:13+00:00	apps	Deployment	webhook	nginx	OutOfSync	Missing		
2023-04-24T06:03:15+00:00		Namespace	webhook	webhook	Running	Synced		namespace/webhook created
2023-04-24T06:03:16+00:00		Service	webhook	nginx-service	Synced	Healthy		
2023-04-24T06:03:16+00:00		Namespace	webhook	webhook	Succeeded	Synced		namespace/webhook created
2023-04-24T06:03:16+00:00		Service	webhook	nginx-service	Synced	Healthy		service/nginx-service created
2023-04-24T06:03:16+00:00	apps	Deployment	webhook	nginx	OutOfSync	Missing		deployment.apps/nginx created
2023-04-24T06:03:16+00:00	apps	Deployment	webhook	nginx	Synced	Progressing		deployment.apps/nginx created

```

Name:      argocd/git-webhook-app
Project:   default
Server:    https://kubernetes.default.svc
Namespace: webhook
URL:       https://localhost:32766/applications/git-webhook-app
Repo:      https://3000-port-effefc7bfc094250.labs.kodekloud.com/bob/gitops-argocd.git
Target:    HEAD
Path:      ./nginx-app
SyncWindow: Sync Allowed
Sync Policy: <none>
Sync Status: Synced to HEAD (3af7a76)
Health Status: Progressing

Operation: Sync
Sync Revision: 3af7a760de36b48fff3e3a37658127e13bb7f48f
Phase: Succeeded
Start: 2023-04-24 06:03:13 +0000 UTC
Finished: 2023-04-24 06:03:16 +0000 UTC

```


git-webhook-app


Project: default

Labels:

Status: ♥ Healthy ✔ Synced

Repository: https://3000-port-effefc7bfc094250.labs....

Target Re... HEAD

Path: ./nginx-app

Destinati... in-cluster


Namesp... webhook

↻ SYNC
🔄 REFRESH
✖ DELETE

In Gitea, manually update the replicas to 2 in deployment.yml within ./nginx-app directory and commit the changes.

What is the default reconciliation time (in minutes) taken by ArgoCD app to detect changes in Git repository?

The default reconciliation time (in minutes) taken by ArgoCD app to detect changes in a git repository is 3 minutes.

 Branch: master ▾

[gitops-argocd](#) / [nginx-app](#) / [deployment.yml](#)

23 lines | 370 B

```
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    labels:
5      app: nginx
6    name: nginx
7  spec:
8    replicas: 2
9    selector:
10     matchLabels:
11       app: nginx
12   strategy: {}
13   template:
14     metadata:
15       labels:
16         app: nginx
17     spec:
18       containers:
19         - image: nginx
20           name: nginx
21           imagePullPolicy: Always
22           ports:
23             - containerPort: 80
```

Branch: master

gitops-argocd / nginx-app / service.yml

15 lines | 243 B

```
1  apiVersion: v1
2  kind: Service
3  metadata:
4    labels:
5      app: nginx
6      name: nginx-service
7  spec:
8    ports:
9      - port: 80 #change to 80
10      protocol: TCP
11      targetPort: 80 #change to 80
12      nodePort: 30334
13    selector:
14      app: nginx
15    type: NodePort
```

To eliminate this reconciliation delay, create a git webhook configuration in Gitea

- Repository - gitops-argocd
- Target URL - <Argocd-uri>/api/webhook
- POST Content Type – application/json
- Trigger On – Push Events

DevOps Online Traini... Lab - ArgoCD Appli... Applications Tiles - A... Git Webhook Configu... bash -c su - (control... Applications Tiles - A... Add Webhook - gitea...

3000-port-effefc7bfc094250.labs.kodekloud.com/bob/gitops-argocd/settings/hooks/gitea/new

Repository Collaborators Branches **Webhooks** Deploy Keys LFS

Add Webhook

Gitea will send POST requests with a specified content type to the target URL. Read more in the [webhooks guide](#).

Target URL *

<https://32766-port-effefc7bfc094250.labs.kodekloud.com/api/webhook>

HTTP Method

POST

POST Content Type

application/json

Secret

Trigger On:

☒ Push Events

☐ All Events

☐ Custom Events...

Branch filter

*

Branch whitelist for push, branch creation and branch deletion events, specified as glob pattern. If empty or *, events for all branches are reported. See github.com/gobwas/glob documentation for syntax. Examples: master, {master, release*}.

34°C Air: Moderate Search 11:38 24-04-2023

In gitops-argocd repository, update the replicas to 3 in deployment.yml within ./nginx-app directory and commit the changes (you can either make changes directly from Gitea or clone the repository and add/push your changes).

What is the time taken for the ArgoCD application git-webhook-app to go OutOfSync?
Few seconds

Change the reconciliation time to 1 minute for ArgoCD.

```
#
apiVersion: v1
kind: ConfigMap
metadata:
  annotations:
    kubectl.kubernetes.io/last-applied-configuration: |
      {"apiVersion":"v1","kind":"ConfigMap","metadata":{"annotati
es.io/name":"argocd-cm","app.kubernetes.io/part-of":"argocd"},"na
gocd"}}
  creationTimestamp: "2023-04-24T05:55:33Z"
  labels:
    app.kubernetes.io/name: argocd-cm
    app.kubernetes.io/part-of: argocd
  name: argocd-cm
  namespace: argocd
  resourceVersion: "3490"
  uid: 9994ecb6-761e-457b-bfdb-923f67690841
data:
  timeout.reconciliation: 60s
~
~
```

```
controlplane ~ ❌ kubectl edit configmaps argocd-cm -n argocd
configmap/argocd-cm edited
```

Create an ArgoCD application as per details mentioned below:

Application Name: health-check-app
Project Name: default
Sync Policy: Manual.
Sync Options: Auto-create Namespace
Repository URL: <Gitea URL>/bob/gitops-argocd.git
Path: ./health-check
Cluster URL: https://kubernetes.default.svc
Namespace: health-check

The screenshot displays the Argo CD web interface for configuring a new application. The left sidebar shows the 'Applications' section with a '+ NEW APP' button. The main area is titled 'Applications' and contains two sections: 'SOURCE' and 'DESTINATION'.


SOURCE Section:

- Repository URL:** `https://3000-port-5994de1a623e4c6f.labs.kodekloud.com/bob/gitops-argocd.git`
- Revision:** `HEAD`
- Path:** `/health-check`


DESTINATION Section:

- Cluster URL:** `https://kubernetes.default.svc`
- Namespace:** `health-check`

The interface also includes a top navigation bar with 'CREATE' and 'CANCEL' buttons, and a bottom status bar showing system information like temperature and time.





health-check-app



Project: default

Labels:

Status:  Missing  OutOfSync




Reposito... <https://3000-port-5994de1a623e4c6f.lab...>

Target Re... HEAD

Path: ./health-check

Destinati... in-cluster

Namesp... health-check

 SYNC
 REFRESH
 DELETE

Synchronize the health-check-app application and access the the app using HealthCheckApp button on the top bar.

```
controlplane ~ → argocd app sync health-check-app
TIMESTAMP      GROUP    KIND      NAMESPACE      NAME      STATUS      HEALTH      HOOK  MESSAGE
2023-04-24T07:27:10+00:00      ConfigMap health-check moving-shapes-colors OutOfSync Missing
2023-04-24T07:27:10+00:00      Service   health-check random-shapes-svc OutOfSync Missing
2023-04-24T07:27:10+00:00      apps     Deployment health-check random-shapes OutOfSync Missing
2023-04-24T07:27:13+00:00      Namespace health-check health-check Running Synced namespace/health-check created
2023-04-24T07:27:13+00:00      ConfigMap health-check moving-shapes-colors Synced Missing
2023-04-24T07:27:13+00:00      Service   health-check random-shapes-svc Synced Healthy
2023-04-24T07:27:14+00:00      ConfigMap health-check moving-shapes-colors Synced Missing configmap/moving-shapes-colors created
2023-04-24T07:27:14+00:00      Service   health-check random-shapes-svc Synced Healthy service/random-shapes-svc created
2023-04-24T07:27:14+00:00      apps     Deployment health-check random-shapes OutOfSync Missing deployment.apps/random-shapes created
2023-04-24T07:27:14+00:00      Namespace health-check health-check Succeeded Synced namespace/health-check created
2023-04-24T07:27:14+00:00      apps     Deployment health-check random-shapes Synced Progressing deployment.apps/random-shapes created

Name: argocd/health-check-app
Project: default
Server: https://kubernetes.default.svc
Namespace: health-check
URL: https://localhost:32766/applications/health-check-app
Repo: https://3000-port-5994de1a623e4c6f.labs.kodekloud.com/bob/gitops-argocd.git
Target: HEAD
Path: ./health-check
SyncWindow: Sync Allowed
Sync Policy: <none>
Sync Status: Synced to HEAD (969c598)
Health Status: Progressing

Operation: Sync
Sync Revision: 969c5980c682d9ac1ac2a12941508b51b78010e0
Phase: Succeeded
```




health-check-app



Project: default

Labels:

Status: Healthy Synced

Reposito... <https://3000-port-5994de1a623e4c6f.lab...>

Target Re... HEAD

Path: ./health-check

Destinati... in-cluster

Namesp... health-check

SYNC

REFRESH

DELETE