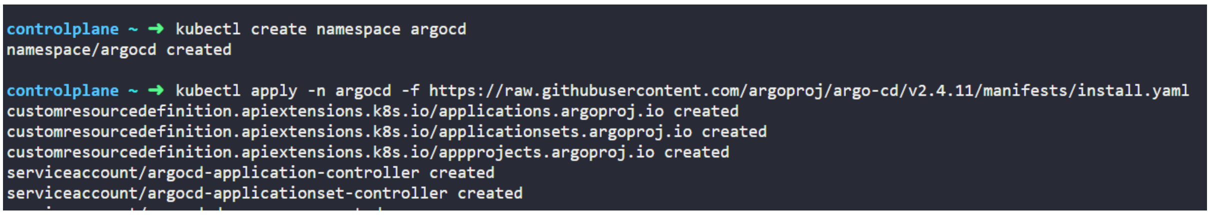
Install a Non-HA v2.4.11 ArgoCD within argocd namespace.
Take help from the documentation by clicking on ArgoCDInstallDoc button.

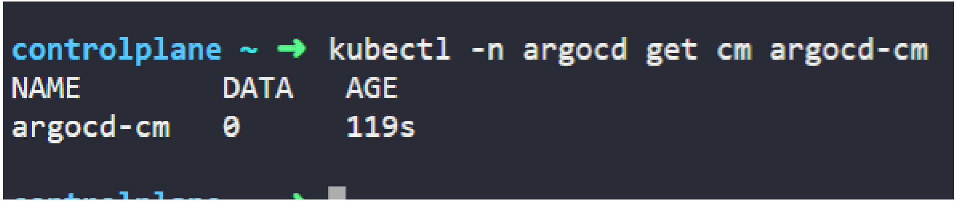
Create a namespace called argocd:
kubectl create namespace argocd

To install Non-HA v2.4.11 ArgoCD within argocd namespace run the below command:
kubectl apply -n argocd -f https://raw.githubusercontent.com/argoproj/argo-cd/v2.4.11/manifests/install.yaml



```
controlplane ~ ➜ kubectl create namespace argocd
namespace/argocd created

controlplane ~ ➜ kubectl apply -n argocd -f https://raw.githubusercontent.com/argoproj/argo-cd/v2.4.11/manifests/install.yaml
customresourcedefinition.apiextensions.k8s.io/applications.argoproj.io created
customresourcedefinition.apiextensions.k8s.io/applicationsets.argoproj.io created
customresourcedefinition.apiextensions.k8s.io/appprojects.argoproj.io created
serviceaccount/argocd-application-controller created
serviceaccount/argocd-applicationset-controller created
```

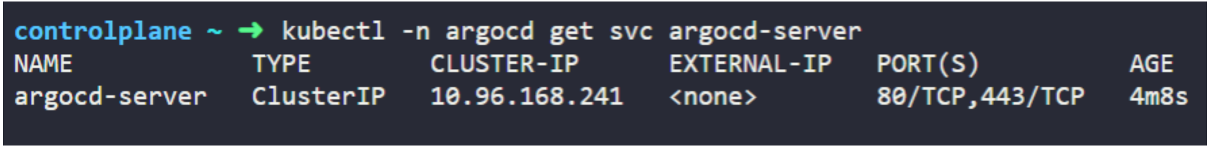
How many data entries does argocd-cm config map has? 0



```
controlplane ~ ➜ kubectl -n argocd get cm argocd-cm
NAME        DATA   AGE
argocd-cm   0      119s
```

You can check the argocd-cm config map data entries using kubectl -n argocd get cm argocd-cm command.

What are the ports on which argocd-server listens on?



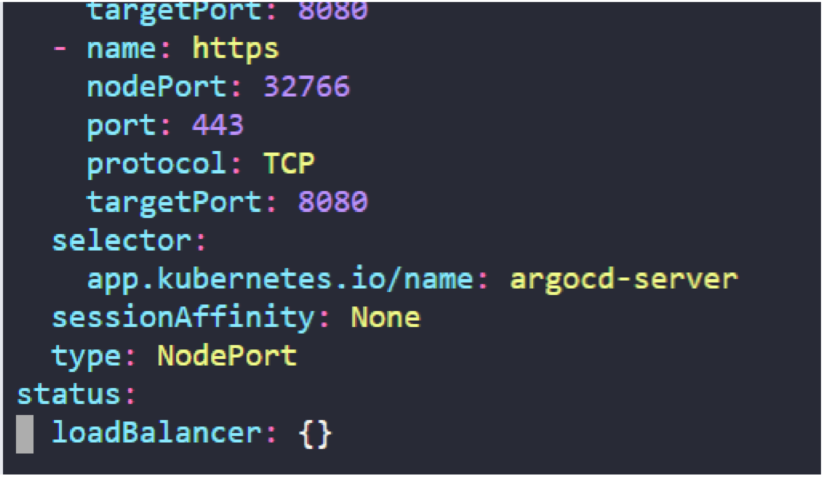
```
controlplane ~ ➜ kubectl -n argocd get svc argocd-server
NAME            TYPE        CLUSTER-IP      EXTERNAL-IP   PORT(S)          AGE
argocd-server   ClusterIP   10.96.168.241   <none>        80/TCP,443/TCP   4m8s
```

You can check the ports used by argocd-server using kubectl -n argocd get svc argocd-server command.

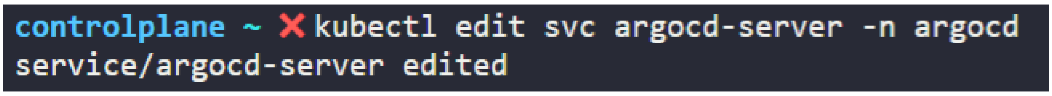
Access the ArgoCD UI by converting the ArgoCD Server service from type ClusterIP to NodePort. Use node port 32766 for https port.

Once done, you should be able to access ArgoCD UI using ArgoCD-UI button on the top bar.
Edit the ArgoCD Server service and convert it from type ClusterIP to NodePort:
kubectl edit svc argocd-server -n argocd

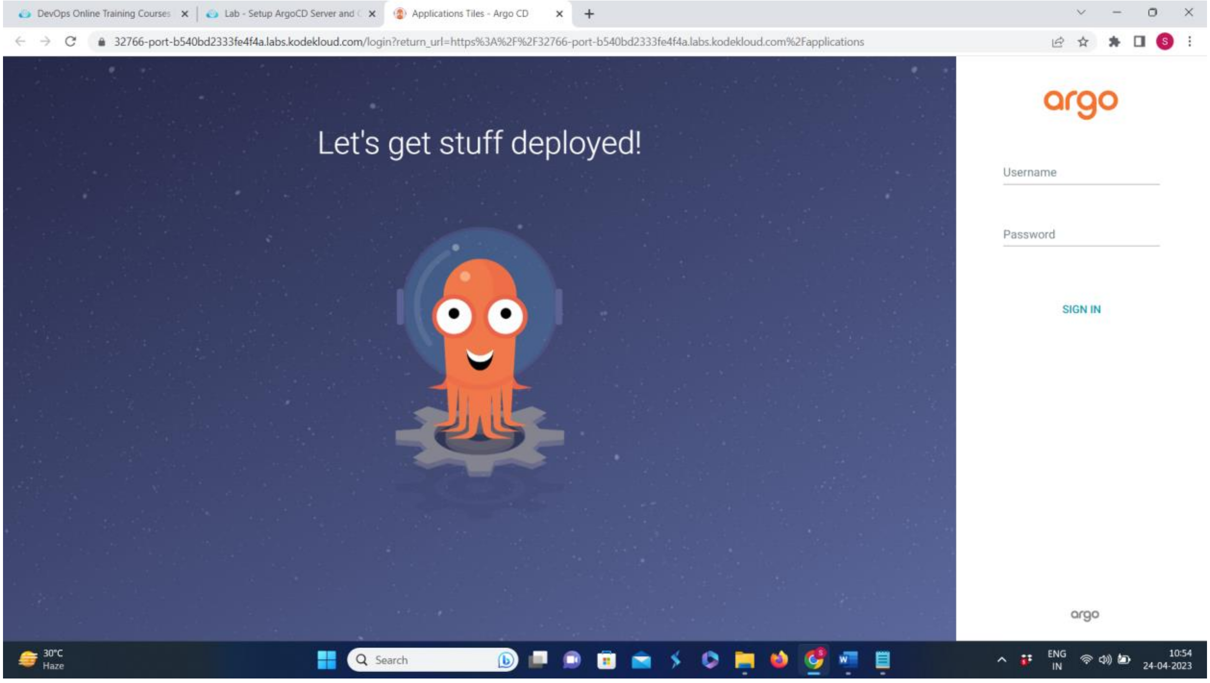
Change type: ClusterIP to type: NodePort and under - name: https add nodePort: 32766
Access the ArgoCD UI using ArgoCD-UI button on the top bar.



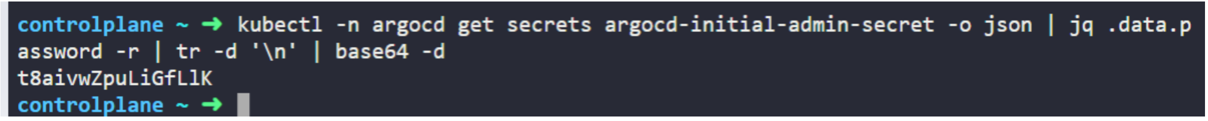
```
    targetPort: 8080
  - name: https
    nodePort: 32766
    port: 443
    protocol: TCP
    targetPort: 8080
  selector:
    app.kubernetes.io/name: argocd-server
  sessionAffinity: None
  type: NodePort
status:
  loadBalancer: {}
```



```
controlplane ~ ✗ kubectl edit svc argocd-server -n argocd
service/argocd-server edited
```


DevOps Online Training Courses
Lab - Setup ArgoCD Server and C
Applications Tiles - Argo CD
32766-port-b540bd2333fe4f4a.labs.kodekloud.com/login?return_url=https%3A%2F%2F32766-port-b540bd2333fe4f4a.labs.kodekloud.com%2Fapplications
Let's get stuff deployed!
argo
Username
Password
SIGN IN
argo
30°C
Haze
Search
ENG
IN
10:54
24-04-2023

Which one of the following is Argocd Initial Admin Password (after base64 decoding) you just setup?

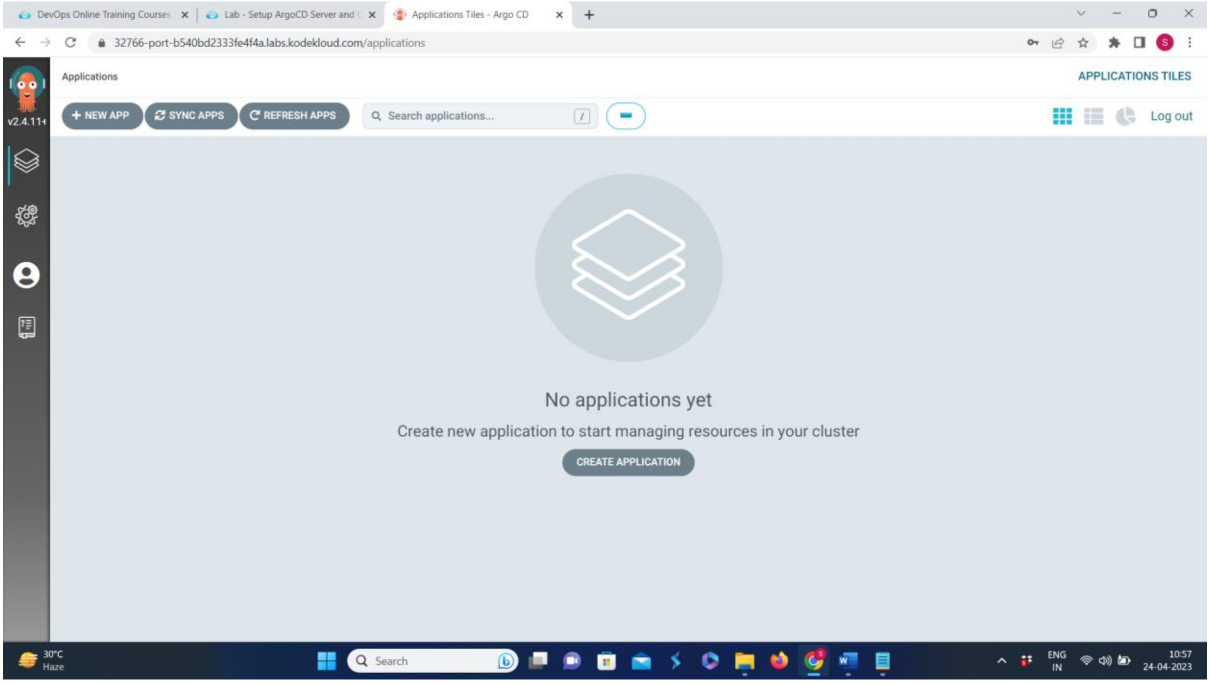


```
controlplane ~ ➜ kubectl -n argocd get secrets argocd-initial-admin-secret -o json | jq .data.p
assword -r | tr -d '\n' | base64 -d
t8aivwZpuLiGfLlK
controlplane ~ ➜ 
```

Fetch the ArgoCD initial Admin Password using kubectl -n argocd get secrets argocd-initial-admin-secret -o json | jq .data.password -r | tr -d '\n' | base64 -d command.

Login into the ArgoCD UI using below credentials:

Username: admin
Password: Use the same password you fetched in previous question.



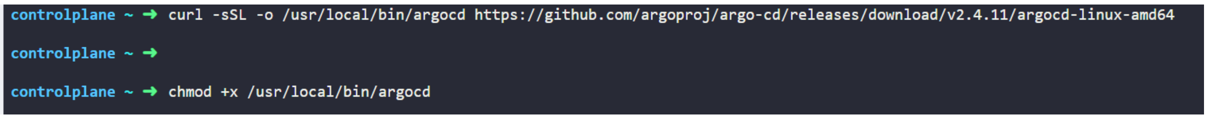
No applications yet

Create new application to start managing resources in your cluster

How many Argocd applications are displayed in ArgoCD UI? 0

Install ArgoCD CLI v2.4.11.
Run the below commands, to install ArgoCD CLI v2.4.11:

curl -sSL -o /usr/local/bin/argocd https://github.com/argoproj/argo-cd/releases/download/v2.4.11/argocd-linux-amd64
chmod +x /usr/local/bin/argocd



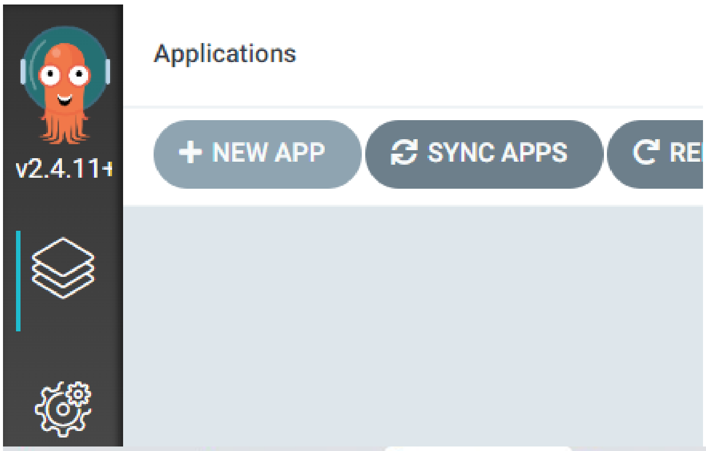
```
controlplane ~ ➜ curl -sSL -o /usr/local/bin/argocd https://github.com/argoproj/argo-cd/releases/download/v2.4.11/argocd-linux-amd64

controlplane ~ ➜

controlplane ~ ➜ chmod +x /usr/local/bin/argocd
```

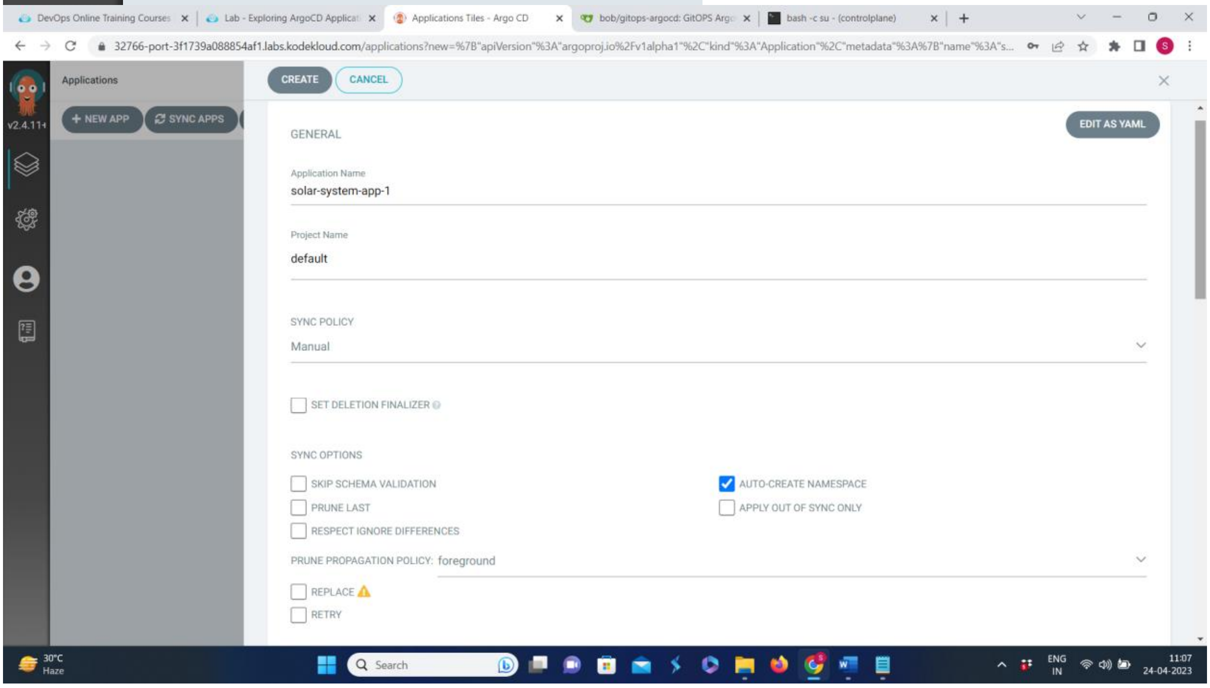
Exploring ArgoCD Application and Project :
Gitea and ArgoCD are already setup. You can access the same using the respective buttons on the top bar.
Access the Gitea server with below credentials
    username: bob
    password: bob@123

Access the ArgoCD UI and CLI with below credentials.
    User: admin
    Password: admin123

Create an Argocd application from the UI as per details mentioned below
    Application Name: solar-system-app-1
    Project Name: default
    Sync Policy: Manual
    Sync Options: Auto-create Namespace
    Repository URL: <Gitea URL>/bob/gitops-argocd.git
    Path: ./solar-system
    Cluster URL: https://kubernetes.default.svc
    Namespace: solar-system

Follow the below steps to create an ArgoCD application using UI:
a. Login to the ArogCD UI.
b. Click on + New App.
c. Enter solar-system-app-1 in Application Name
d. Enter default in Project Name
e. Enter Manual in SYNC POLICY
f. Select AUTO-CREATE NAMESPACE under SYNC OPTIONS
g. Enter <Gitea URL>/bob/gitops-argocd.git in Repository URL
h. Enter ./solar-system in Path
i. Enter https://kubernetes.default.svc in Cluster URL
j. Enter solar-system in Namespace
k. Finally click on CREATE




DevOps Online Training Courses
Lab - Exploring ArgoCD Applicat
Applications Tiles - Argo CD
bob/gitops-argocd: GitOPS Argo
bash -c su - (controlplane)
32766-port-3f1739a088854af1.labs.kodekloud.com/applications?new=%7B"apiVersion"%3A"argoproj.io%2Fv1alpha1"%2C"kind"%3A"Application"%2C"metadata"%3A%7B"name"%3A"s...
v2.4.11+
Applications
+ NEW APP
SYNC APPS
CREATE
CANCEL
EDIT AS YAML
30°C
Haze
Search
ENG
IN
11:07
24-04-2023

GENERAL

Application Name
solar-system-app-1

Project Name
default

SYNC POLICY
Manual

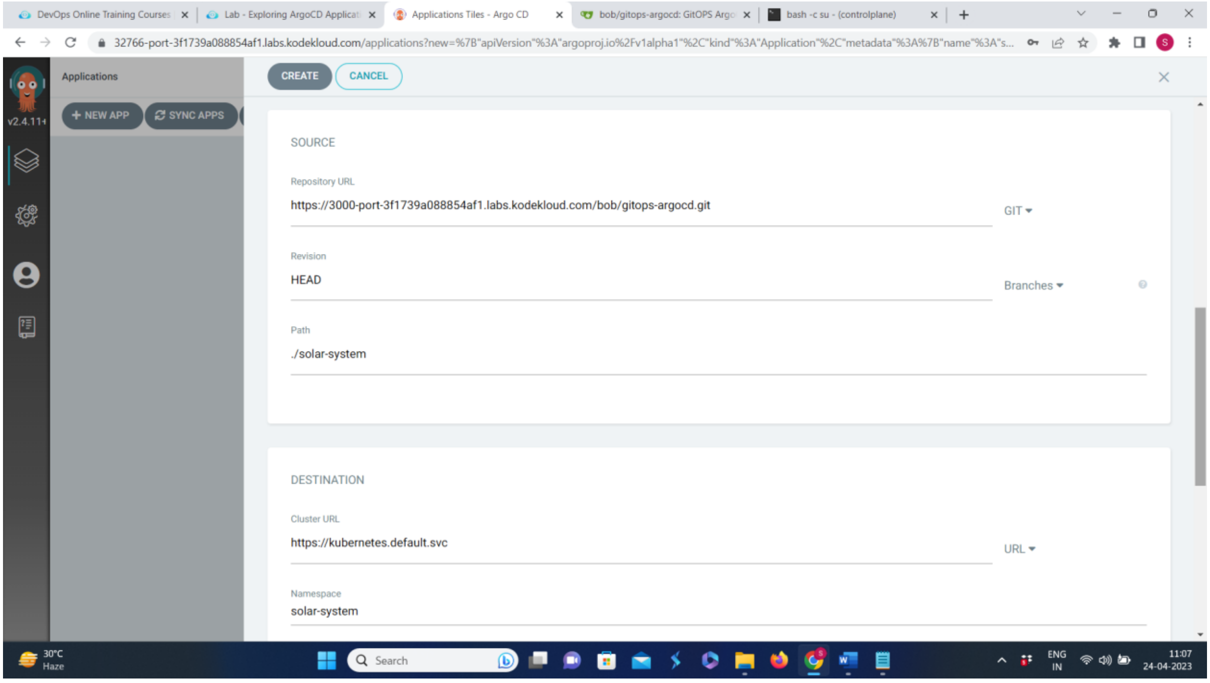
□ SET DELETION FINALIZER

SYNC OPTIONS

□ SKIP SCHEMA VALIDATION
□ PRUNE LAST
□ RESPECT IGNORE DIFFERENCES
☑ AUTO-CREATE NAMESPACE
□ APPLY OUT OF SYNC ONLY

PRUNE PROPAGATION POLICY: foreground

□ REPLACE ⚠
□ RETRY



SOURCE

Repository URL
https://3000-port-3f1739a088854af1.labs.kodekloud.com/bob/gitops-argocd.git GIT

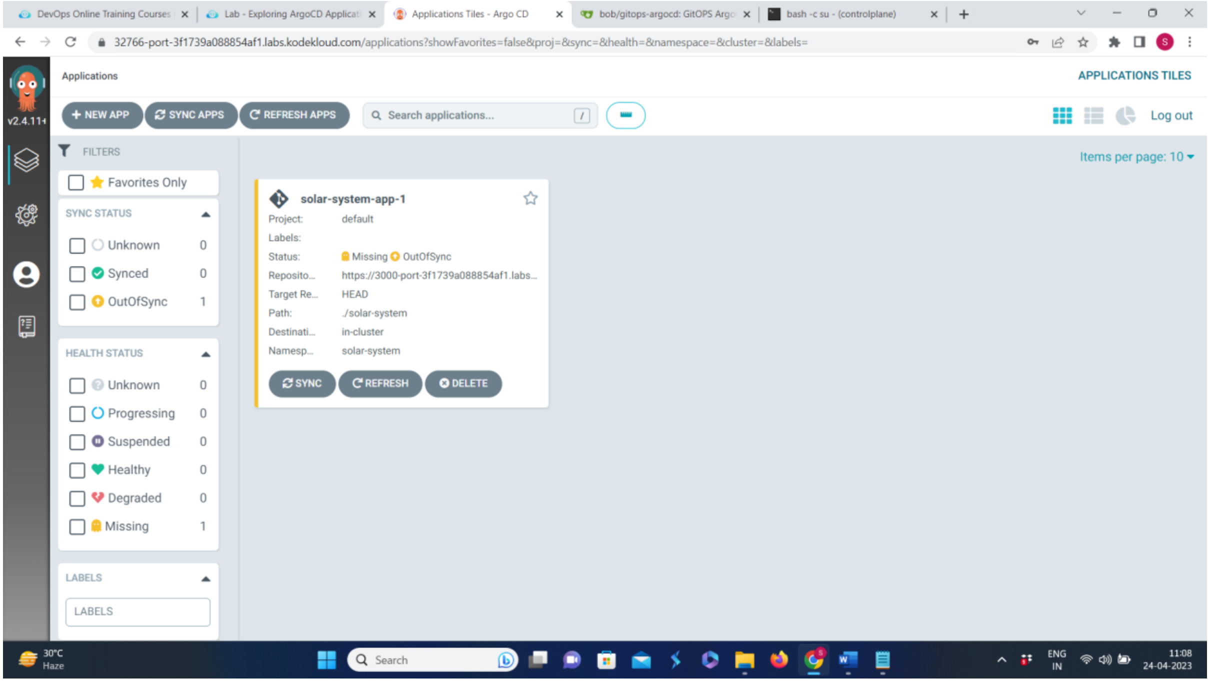
Revision
HEAD Branches

Path
./solar-system

DESTINATION

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

Namespace
solar-system



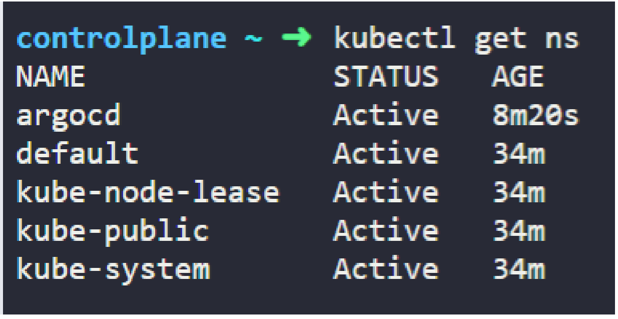
□ Favorites Only

SYNC STATUS
□ Unknown 0
□ Synced 0
□ OutOfSync 1

HEALTH STATUS
□ Unknown 0
□ Progressing 0
□ Suspended 0
□ Healthy 0
□ Degraded 0
□ Missing 1

solar-system-app-1
Project: default
Labels:
Status: Missing OutOfSync
Reposito... https://3000-port-3f1739a088854af1.labs...
Target Re... HEAD
Path: ./solar-system
Destinati... in-cluster
Namesp... solar-system

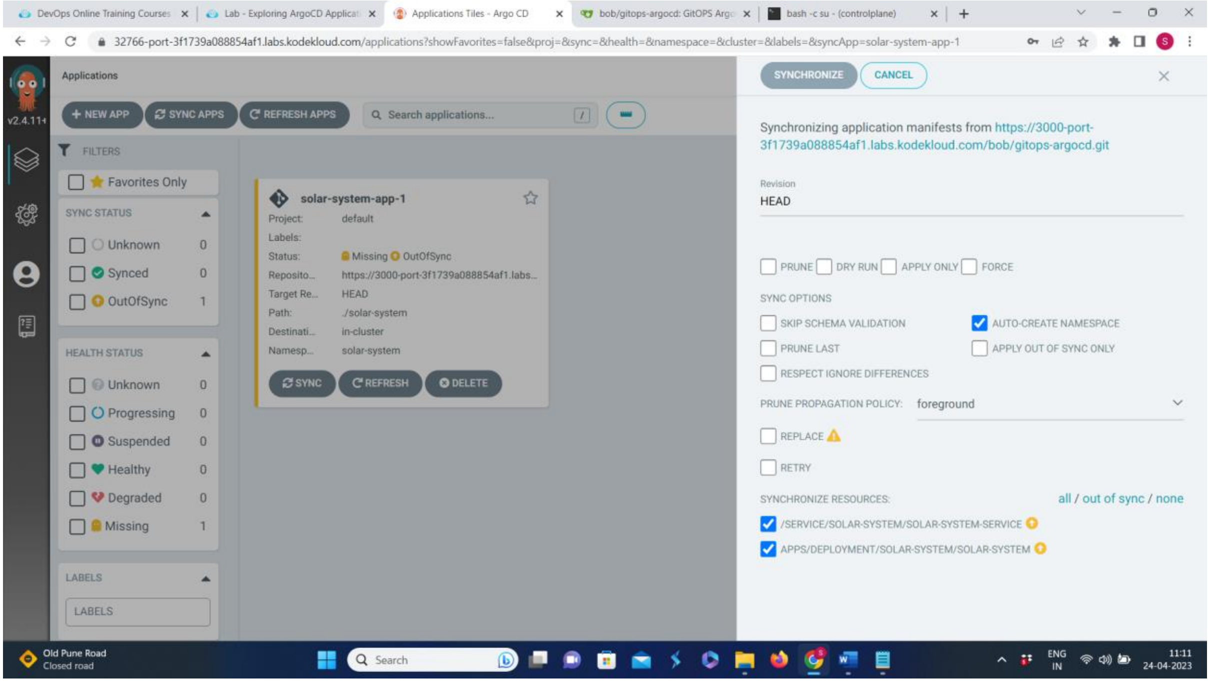
Does the solar-system namespace exit in this Kubernetes cluster? no



```
controlplane ~ ➜  kubectl get ns
NAME              STATUS   AGE
argocd            Active   8m20s
default           Active   34m
kube-node-lease   Active   34m
kube-public       Active   34m
kube-system       Active   34m
```

Argocd app is not yet synced, hence the solar-system namespace does not exit in this Kubernetes cluster.

Sync the solar-system-app-1 app from ArgoCD UI.
Follow the below steps to sync the app solar-system-app-1.
a. Login to the ArogCD UI.
b. For solar-system-app-1 app click on SYNC.
c. Keep all options as it is and click on SYNCHRONIZE



32766-port-3f1739a088854af1.labs.kodekloud.com/applications?showFavorites=false&proj=&sync=&health=&namespace=&cluster=&labels=&syncApp=solar-system-app-1

Applications

FILTERS

□ Favorites Only

SYNC STATUS
□ Unknown 0
□ Synced 0
□ OutOfSync 1

HEALTH STATUS
□ Unknown 0
□ Progressing 0
□ Suspended 0
□ Healthy 0
□ Degraded 0
□ Missing 1

solar-system-app-1
Project: default
Labels:
Status: Missing OutOfSync
Reposito... https://3000-port-3f1739a088854af1.labs...
Target Re... HEAD
Path: ./solar-system
Destinati... in-cluster
Namesp... solar-system

SYNCHRONIZE CANCEL

Synchronizing application manifests from https://3000-port-3f1739a088854af1.labs.kodekloud.com/bob/gitops-argocd.git

Revision
HEAD

□ PRUNE □ DRY RUN □ APPLY ONLY □ FORCE

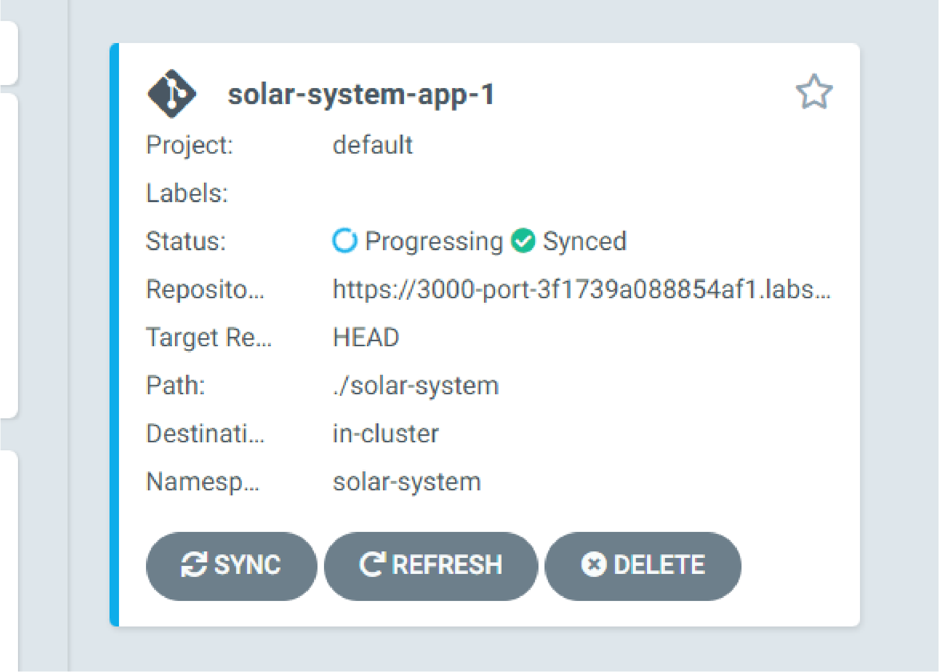
SYNC OPTIONS
□ SKIP SCHEMA VALIDATION ☑ AUTO-CREATE NAMESPACE
□ PRUNE LAST □ APPLY OUT OF SYNC ONLY
□ RESPECT IGNORE DIFFERENCES

PRUNE PROPAGATION POLICY: foreground

□ REPLACE ⚠

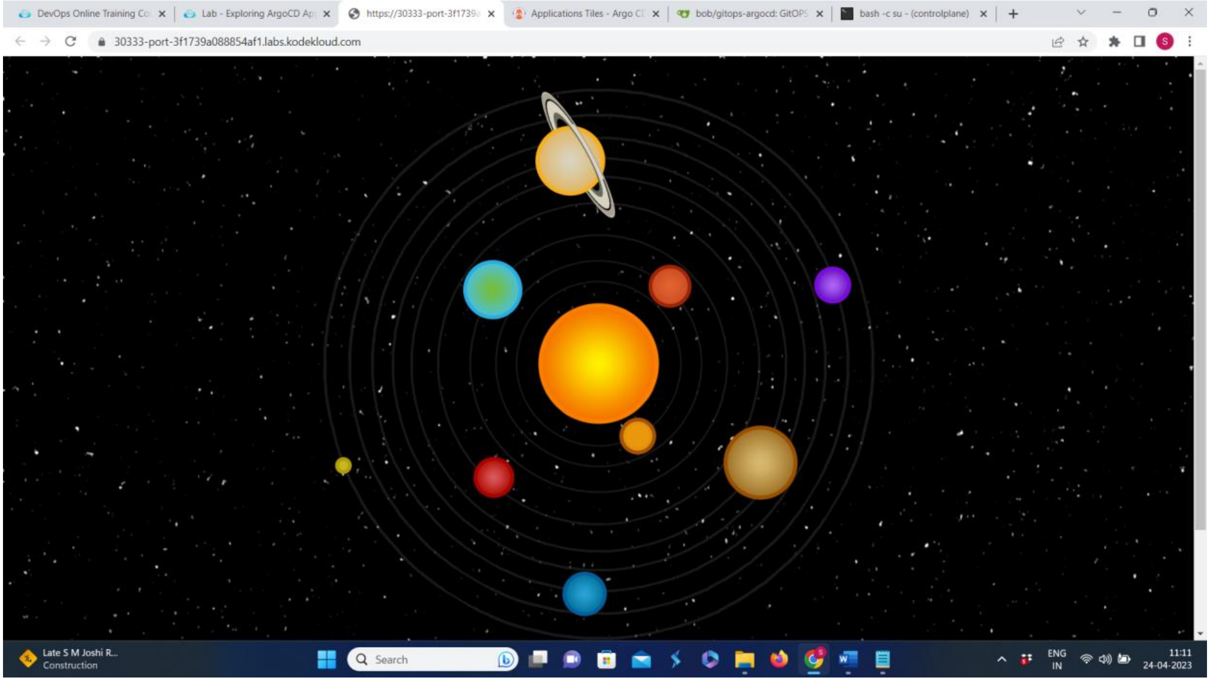
□ RETRY

SYNCHRONIZE RESOURCES: all / out of sync / none
☑ /SERVICE/SOLAR-SYSTEM/SOLAR-SYSTEM-SERVICE
☑ APPS/DEPLOYMENT/SOLAR-SYSTEM/SOLAR-SYSTEM

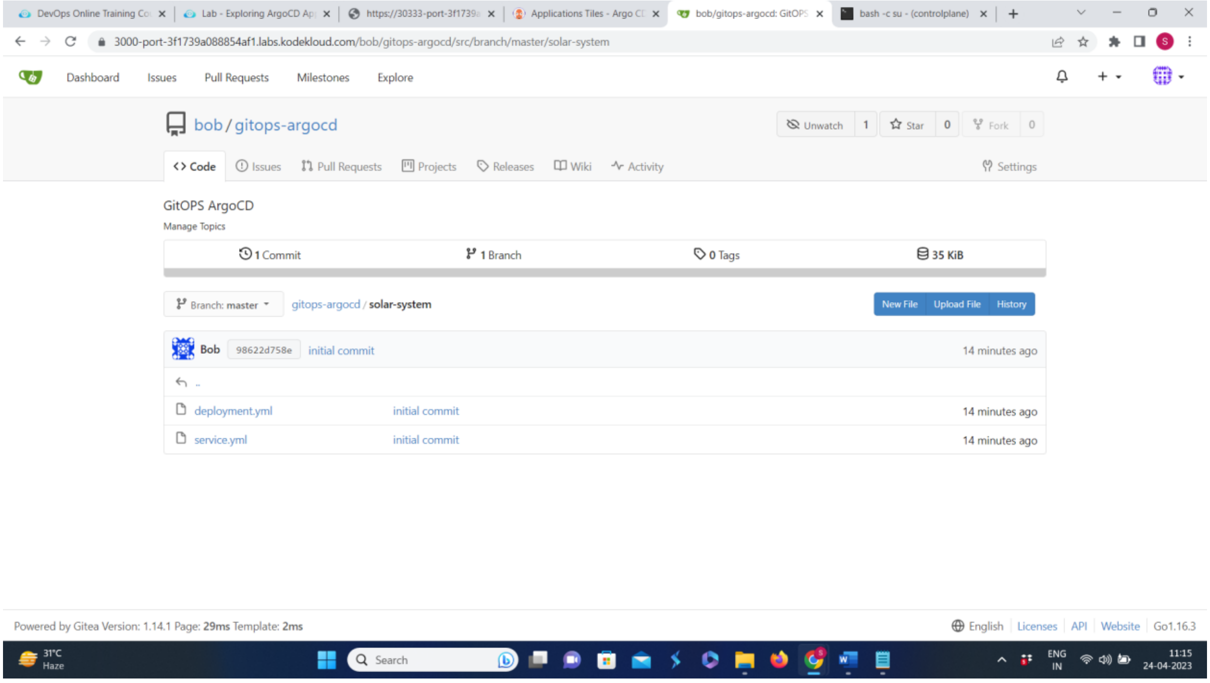


solar-system-app-1
Project: default
Labels:
Status: Progressing Synced
Reposito... https://3000-port-3f1739a088854af1.labs...
Target Re... HEAD
Path: ./solar-system
Destinati... in-cluster
Namesp... solar-system

Access the solar-system app UI using SolarSystem button on the top bar.

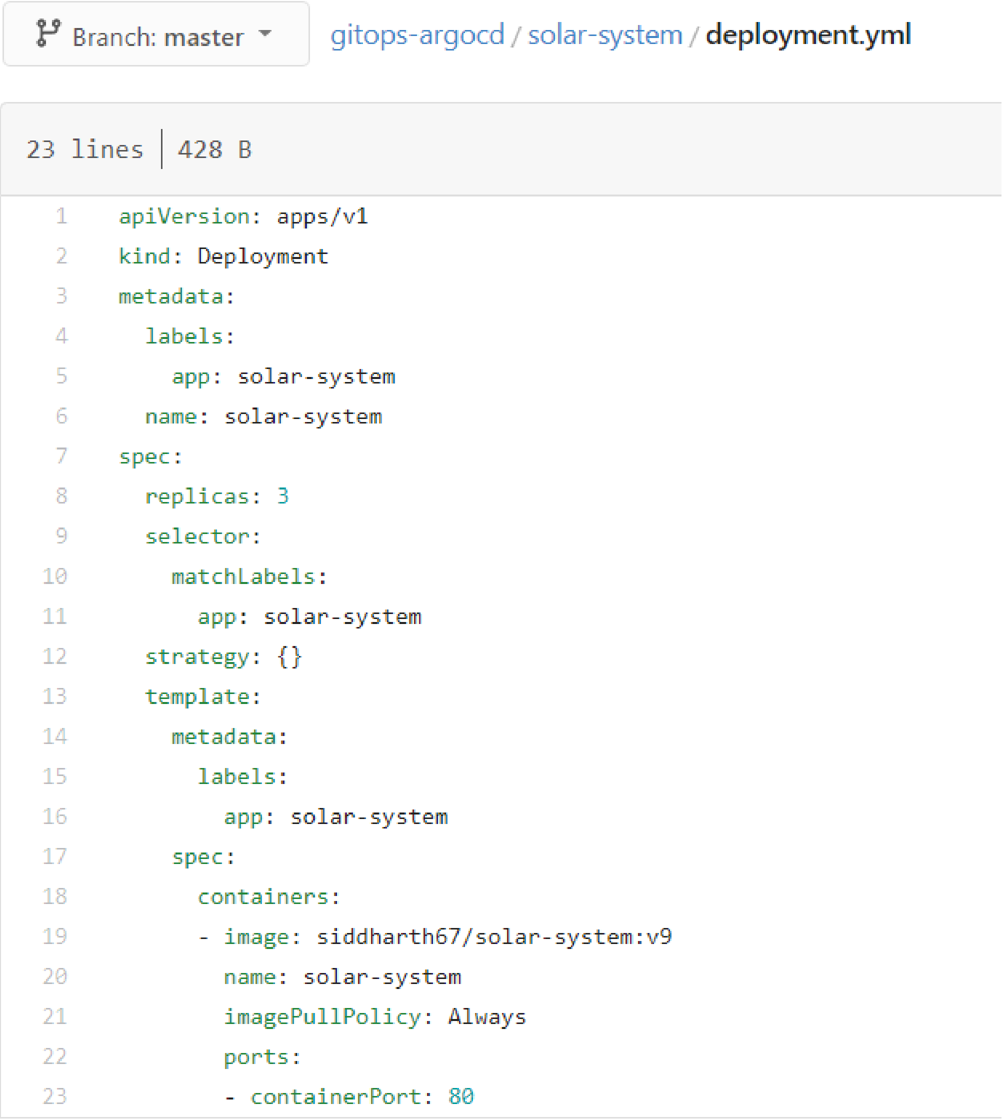

DevOps Online Training Co
Lab - Exploring ArgoCD Ap
https://30333-port-3f1739
Applications Tiles - Argo CD
bob/gitops-argocd: GitOPS
bash -c su - (controlplane)
30333-port-3f1739a088854af1.labs.kodekloud.com
Late S M Joshi R...
Construction
Search
ENG
IN
11:11
24-04-2023

Deleting the application in argocd UI will delete all the resources along with the namespace.
No, namespace will not be deleted.


DevOps Online Training Co
Lab - Exploring ArgoCD Ap
https://30333-port-3f1739
Applications Tiles - Argo CD
bob/gitops-argocd: GitOPS
bash -c su - (controlplane)
3000-port-3f1739a088854af1.labs.kodekloud.com/bob/gitops-argocd/src/branch/master/solar-system
Dashboard
Issues
Pull Requests
Milestones
Explore
bob / gitops-argocd
Unwatch 1
Star 0
Fork 0
Code
Issues
Pull Requests
Projects
Releases
Wiki
Activity
Settings
GitOPS ArgoCD
Manage Topics
1 Commit
1 Branch
0 Tags
35 KiB
Branch: master
gitops-argocd / solar-system
New File
Upload File
History
Powered by Gitea Version: 1.14.1 Page: 29ms Template: 2ms
English
Licenses
API
Website
Go1.16.3
31°C
Haze
Search
ENG
IN
11:15
24-04-2023

Bob 98622d758e initial commit 14 minutes ago

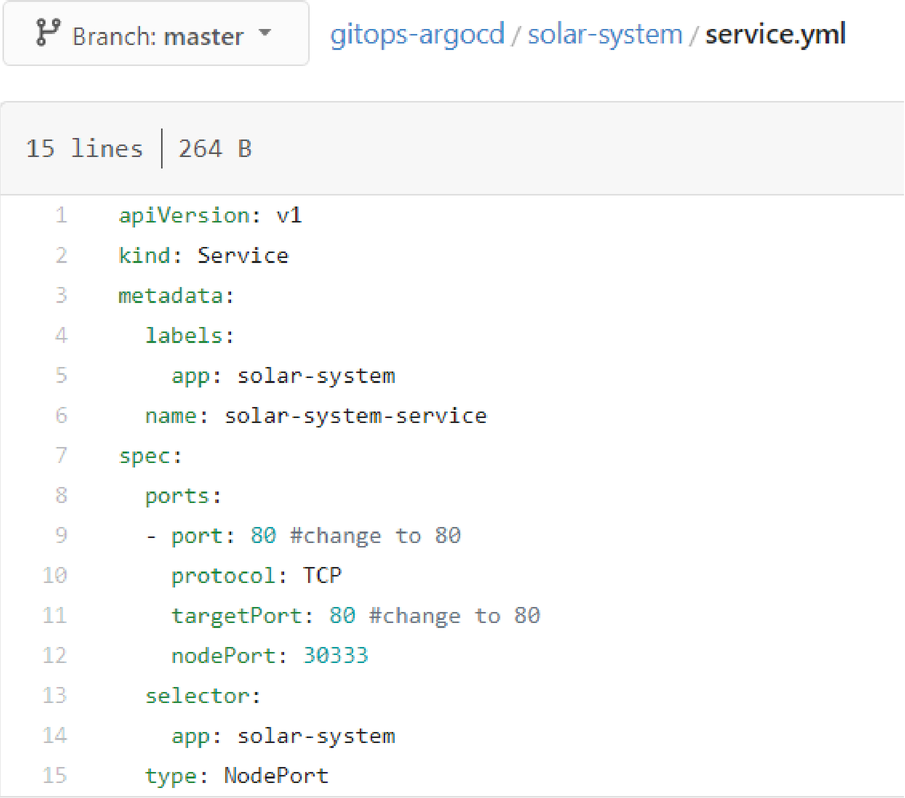
..		
deployment.yml	initial commit	14 minutes ago
service.yml	initial commit	14 minutes ago



gitops-argocd / solar-system / deployment.yml

23 lines | 428 B

```yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    app: solar-system
  name: solar-system
spec:
  replicas: 3
  selector:
    matchLabels:
      app: solar-system
  strategy: {}
  template:
    metadata:
      labels:
        app: solar-system
    spec:
      containers:
      - image: siddharth67/solar-system:v9
        name: solar-system
        imagePullPolicy: Always
        ports:
        - containerPort: 80
```



Branch: master

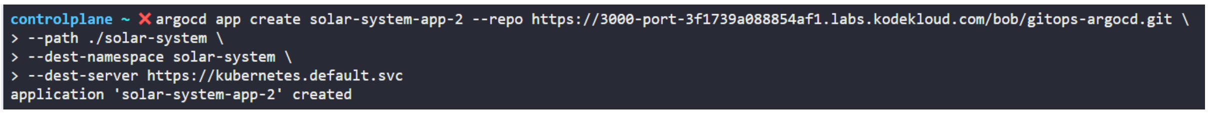
gitops-argocd / solar-system / service.yml

15 lines | 264 B

```yaml
apiVersion: v1
kind: Service
metadata:
  labels:
    app: solar-system
  name: solar-system-service
spec:
  ports:
  - port: 80 #change to 80
    protocol: TCP
    targetPort: 80 #change to 80
    nodePort: 30333
  selector:
    app: solar-system
  type: NodePort
```

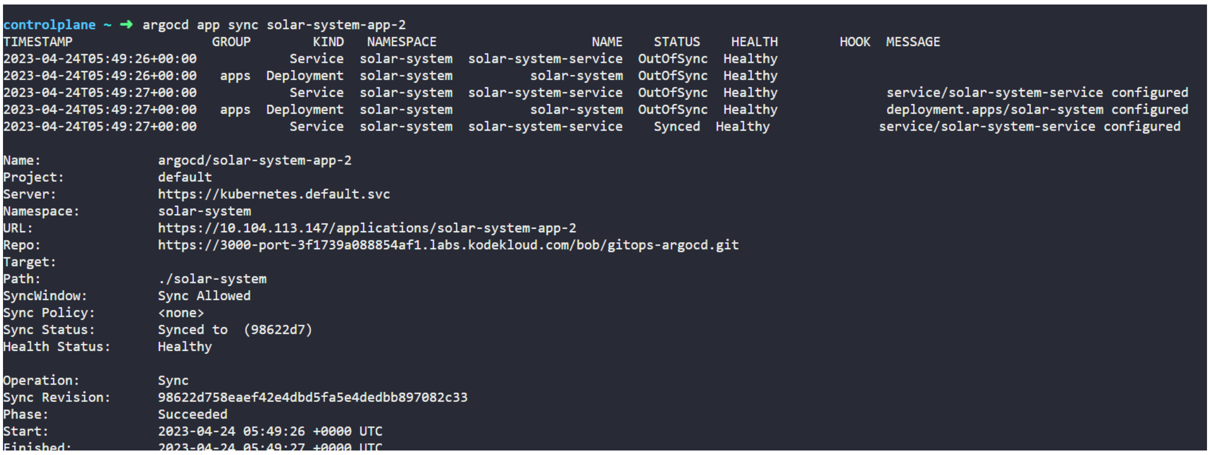
Create an Argocd Application using CLI (we have disabled the ArgoCD UI temporarily)
  Application Name: solar-system-app-2
  Repository URL: <Gitea URL>/bob/gitops-argocd.git
  Path: ./solar-system
  Cluster URL: https://kubernetes.default.svc
  Namespace: solar-system

Run the below command, to create an application solar-system-app-2 using CLI:
argocd app create solar-system-app-2 \
--repo <gitea-url>/bob/gitops-argocd.git \
--path ./solar-system \
--dest-namespace solar-system \
--dest-server https://kubernetes.default.svc



```
controlplane ~ ✗ argocd app create solar-system-app-2 --repo https://3000-port-3f1739a088854af1.labs.kodekloud.com/bob/gitops-argocd.git \
> --path ./solar-system \
> --dest-namespace solar-system \
> --dest-server https://kubernetes.default.svc
application 'solar-system-app-2' created
```

Synchronize the solar-system-app-2 application using Argocd CLI (we have disabled the ArgoCD UI temporarily).

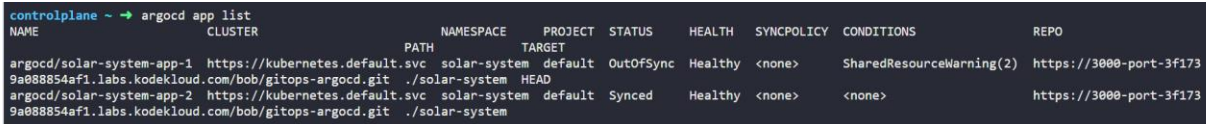


```
controlplane ~ ➜ argocd app sync solar-system-app-2
TIMESTAMP                  GROUP        KIND   NAMESPACE                  NAME    STATUS    HEALTH        HOOK  MESSAGE
2023-04-24T05:49:26+00:00            Service  solar-system  solar-system-service  OutOfSync  Healthy
2023-04-24T05:49:26+00:00   apps  Deployment  solar-system          solar-system  OutOfSync  Healthy
2023-04-24T05:49:27+00:00            Service  solar-system  solar-system-service  OutOfSync  Healthy              service/solar-system-service configured
2023-04-24T05:49:27+00:00   apps  Deployment  solar-system          solar-system  OutOfSync  Healthy              deployment.apps/solar-system configured
2023-04-24T05:49:27+00:00            Service  solar-system  solar-system-service    Synced  Healthy              service/solar-system-service configured

Name:               argocd/solar-system-app-2
Project:            default
Server:             https://kubernetes.default.svc
Namespace:          solar-system
URL:                https://10.104.113.147/applications/solar-system-app-2
Repo:               https://3000-port-3f1739a088854af1.labs.kodekloud.com/bob/gitops-argocd.git
Target:
Path:               ./solar-system
SyncWindow:         Sync Allowed
Sync Policy:        <none>
Sync Status:        Synced to  (98622d7)
Health Status:      Healthy

Operation:          Sync
Sync Revision:      98622d758eaef42e4dbd5fa5e4dedbb897082c33
Phase:              Succeeded
Start:              2023-04-24 05:49:26 +0000 UTC
Finished:           2023-04-24 05:49:27 +0000 UTC
```

Run the below command to synchronize the solar-system-app-2 application using CLI:

argocd app sync solar-system-app-2

What is the CLI command to list the Argocd applications?



```
controlplane ~ ➜ argocd app list
NAME                        CLUSTER                         NAMESPACE     PROJECT  STATUS     HEALTH   SYNCPOLICY  CONDITIONS                REPO
                                                      PATH              TARGET
argocd/solar-system-app-1  https://kubernetes.default.svc  solar-system  default  OutOfSync  Healthy  <none>      SharedResourceWarning(2)  https://3000-port-3f173
9a088854af1.labs.kodekloud.com/bob/gitops-argocd.git  ./solar-system  HEAD
argocd/solar-system-app-2  https://kubernetes.default.svc  solar-system  default  Synced     Healthy  <none>      <none>                    https://3000-port-3f173
9a088854af1.labs.kodekloud.com/bob/gitops-argocd.git  ./solar-system
```

Which of the following projects is created by default when Argocd is installed?
default project is created when Argocd is installed.