UPYOG Infrastructure Deployment

This repository contains scripts and configurations for deploying UPYOG infrastructure on a single standalone infrastructure.

Prerequisites

Before deployment, ensure you have the following tools installed:

● Linux distribution running in a VM or bare metal
● curl
● wget
● git
● tar
● Docker
● kubectl
● k3d (v4.4.8)
● GO (v1.13.3)
● Helm
● Postman

You can install the necessary tools using the following commands:

```
sudo apt-get install curl wget git tar
# Install Docker, kubectl, k3d, GO, Helm, and Postman following their respective installation guides.
```

Create Lightweight Kubernetes Cluster

Steps to Create Kubernetes Cluster

Create Kube Directory and Set Permissions:

```
cd ~
mkdir kube
chmod 777 kube
cd kube
```

Create Kubernetes Cluster:

```
k3d cluster create --k3s-server-arg "--no-deploy=traefik" --agents 2 -v
```

```
"/home/<user_name>/kube:/kube@agent[0,1]" -v
"/home/<user_name>/kube:/kube@server[0]" --port "80:80@loadbalancer"
# Replace "/home/<user_name>/kube" with your directory path
```

Get Kubeconfig File and Set Context:

```
k3d kubeconfig get k3s-default > myk3dconfig
export KUBECONFIG=<path-to-your-kube_config>
kubectl config use-context k3d-k3s-default --kubeconfig=myk3dconfig
```

Verify Cluster Creation and nodes running:

```
kubectl cluster-info
k3d cluster list
kubectl get nodes
kubectl top nodes
```

Deployment

Clone UPYOG Devops GitRepo:

git clone https://github.com/sahmedniua/UPYOG-DevOps
Branch : qucikstart

Path: deploy-as-code/helm/environments

Update Configuration**

● Add your Domain Name accordigly ####:
o /deploy-as-code/helm/environments/quickstart-c
Onfig.yaml

Deploy UPYOG Application**

    ● Move to upyog-infra/deploy-as-code/deployer.
    ● Run:

sudo go run digit_setup.go

Follow prompts:
       i. Type 'yes'
       ii. Enter the fully qualified path of your kubeconfig
       file: /home/shafeeq/.kube/config
       iii. Select the release version (e.g., 2.7).
       iv. select module

Post Deployment Steps

Check Pod Status:

kubectl get pods -A

##DNS Configuration**

- Create DNS records pointing to the IP in your DNS provider.
- Verify using:
curl -Is http://upyog.niua.org/employee/login | head -n 1

Deploy the required mode for FSM one by one and change the docker image version accordingly if required

go run main.go deploy -c -e quickstart-config
niua/billing-service:2.0-niua-fsm-ed4fe46f5c-1
go run main.go deploy -c -e quickstart-config
niua/fsm:2.0-niua-fsm-dabde44126-2
go run main.go deploy -c -e quickstart-config
niua/dashboard-analytics:2.0-niua-fsm-7852f3293f-1
go run main.go deploy -c -e quickstart-config
niua/dashboard-ingest:2.0-niua-fsm-1c8f5fb7b3-1
go run main.go deploy -c -e quickstart-config
niua/dss-dashboard:2.0-niua-fsm-ed4fe46f5c-1
go run main.go deploy -c -e quickstart-config
niua/fsm-calculator:2.0-niua-fsm-4d99820369-1
go run main.go deploy -c -e quickstart-config
niua/inbox:2.0-niua-fsm-893fdc2101-11
go run main.go deploy -c -e quickstart-config
niua/vehicle:2.0-niua-fsm-4d99820369-1

go run main.go deploy -c -e quickstart-config niua/vendor:v2.0-4d99820369-1
go run main.go deploy -c -e quickstart-config
egovio/egov-mdms-service:v1.3.2-72f8a8f87b-12
go run main.go deploy -c -e quickstart-config
egovio/chatbot-db:v1.1.6-72f8a8f87b-8
go run main.go deploy -c -e quickstart-config egovio/citizen:v1.8.0-b078fa041d-97
go run main.go deploy -c -e quickstart-config
egovio/collection-services-db:v1.1.6-c856353983-29
go run main.go deploy -c -e quickstart-config
egovio/egov-localization-db:v1.1.3-72f8a8f87b-6
go run main.go deploy -c -e quickstart-config
egovio/egov-location-db:v1.1.4-72f8a8f87b-6
go run main.go deploy -c -e quickstart-config
egovio/pdf-service-db:v1.1.6-96b24b0d72-22
go run main.go deploy -c -e quickstart-config
egovio/pgr-services:pgr-quickstart-86837e0a85-35
go run main.go deploy -c -e quickstart-config
egovio/rainmaker-pgr:v1.1.4-48a03ad7bb-4
go run main.go deploy -c -e quickstart-config
egovio/egov-url-shortening:v1.1.2-1715164454-3
go run main.go deploy -c -e quickstart-config
niua/zuul:2.0-niua-fsm-1496f05993-2

Verify configuration**

- Run below commands and check if all pods are running fine:
- #get the pods running in the cluster
- kubectl get pods -n egov
- #Delete the pods so that they get restarted automatically
kubectl delete pods zuul-788bf8cd8b-9nxfl
egov-workflow-v2-5cdb96bcf5-dcgmf pgr-services-b9f4ffdbf-5h5kd -n egov

Bootstrap UPYOG

- Forward K8 port:

kubectl port-forward svc/egov-user 8080:8080 -n egov

- Seed sample data using Postman:
        o Import the seed_data.json into Postman

o Change app URL with your URL (Don't change API URL where localhost
is
there)
o Run all APIs.

Delete Kubernetes Cluster:

k3d cluster delete k3s-default
This will automatically delete all UPYOG deployment components and free up
system resources