## **GIT-HUB ACTIONS WITH EKS**

#### Create an instance on aws dashboard



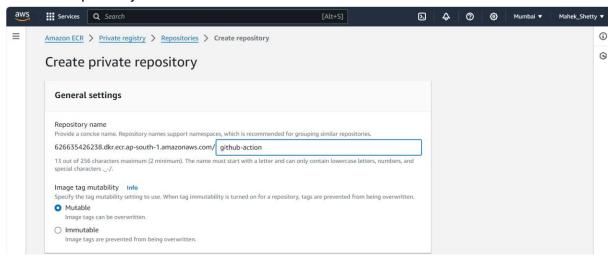
### Set the hostname

```
ubuntu@ip-172-31-41-252:~$ sudo su -
root@ip-172-31-41-252:~# hostnamectl set-hostname cluster
root@ip-172-31-41-252:~# bash
root@cluster:~# |
```

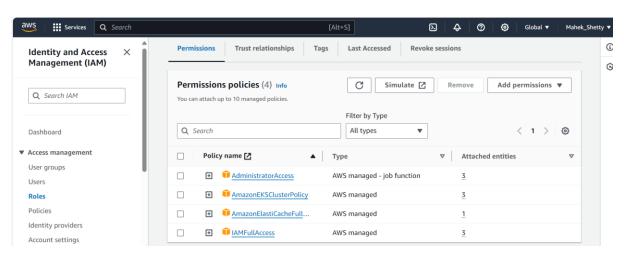
## Create a new file in git repository following the path

```
jenkins / .github / workflows / deploy.yml
                                                                  in main
                                                                                                                   \Box
  Edit
          Preview
                                                                         Spaces ♦
                                                                                                  No wrap
   1
         name: Deploy to ECR
           push:
   8
   9
           branches: [ main ]
  10
  11
         env:
  12
         ECR_REPOSITORY: github-action
  13
  14
         EKS_CLUSTER_NAME: my-cluster
  15
  16
  17
           AWS_REGION: ap-south-1
  18
Use Control + Shift + m to toggle the tab key moving focus. Alternatively, use esc then tab to move to the next interactive
element on the page.
```

### Create a repository on ECR



### Eks instance



```
root@cluster:~# unzip awscliv2.zip
Archive: awscliv2.zip
    creating: aws/
    creating: aws/dist/
    inflating: aws/README.md
    inflating: aws/THIRD_PARTY_LICENSES
    inflating: aws/install
        creating: aws/dist/awscli/
        creating: aws/dist/cryptography/
        creating: aws/dist/cyptography/
        creating: aws/dist/lib-dynload/
    inflating: aws/dist/lib-dynload/
    inflating: aws/dist/aws_completer
    inflating: aws/dist/aws_completer
    inflating: aws/dist/awscrt.abi3.so
    inflating: aws/dist/_cffi_backend.cpython-312-x86_64-linux-gnu.so
    inflating: aws/dist/_ruamel_yaml.cpython-312-x86_64-linux-gnu.so
    inflating: aws/dist/libz.so.1
```

```
root@cluster:~# sudo ./aws/install
You can now run: /usr/local/bin/aws --version
root@cluster:~# aws configure
AWS Access Key ID [None]: AKIAZDZTBZG7FPUJRTNB
AWS Secret Access Key [None]: 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
Default region name [None]: ap-south-1
Default output format [None]: table
```

```
root@cluster:~# curl --silent --location "https://github.com/weaveworks/eksctl/releases/latest/download/eksctl_$(uname -s)_amd64.tar.
gz" | tar xz -C /tmp
root@cluster:~# sudo mv /tmp/eksctl /usr/local/bin
root@cluster:~# eksctl version
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```
Provided the control of the control 
 eksctl create cluster --name my-cluster --region ap-south-1 --version 1.29 --vpc-public-subnets subnet-0f87f7375d8400582,subnet-004b5
  2024-09-30 06:56:04 [ sing Kubernetes version 1.29
2024-09-30 06:56:04 [ creating EKS cluster "my-cluster" in "ap-south-1" region with
2024-09-30 06:56:04 [ if you encounter any issues, check CloudFormation console or try 'eksctl utils describe-stacks --region=ap-s
 oot@cluster:~# - ssh-keygen
eksctl create nodegroup \
--cluster my-cluster \
--region ap-south-1 \
--name my-node-group \
--node-ami-family Ubuntu2004 \
--node-type t2.small \
--subnet-ids subnet-0f87f7375d8400582,subnet-004b51a14730308d3 \
--nodes 3 \
--nodes-max 4 \
--ssh-access \
  ₽ Branches
                                                                                               Secrets Variables

    Tags

                                                                                           Environment secrets
        Actions
                                                                                                                                                                      This environment has no secrets
        & Webhooks
        Environments
                                                                                                                                                                      Manage environment secrets

☐ Codespaces

        Pages
                                                                                                                                                                                                                                                             New repository secret
                                                                                           Repository secrets

    Code security

                                                                                               Name = ↑
                                                                                                                                                                                                                                                      Last updated
        Deploy keys
                                                                                                AWS_ACCESS_KEY
        * Secrets and variables
                                                                                                                                                                                                                                                     9 minutes ago
                                                                                               AWS_SECRET_ACCESS_KEY
     Actions
```

Create a vim deployment file

Vim deployment.yml

```
apiVersion: apps/v1
kind: Deployment
metadata:
    name: my-app1
namespace: default
labels:
    app: my-app1
spec:
    replicas: 1
    selector:
    matchLabels:
    app: my-app1
template:
    metadata:
    labels:
    app: my-app1
spec:
    containers:
    - name: my-app1
    image: 626635426238.dkr.ecr.ap-south-l.amazonaws.com/github-action
    imagePullPolicy: Always
    ports:
    - containerPort: 8080
strategy:
    type: RollingUpdate
    rollingUpdate:
    maxSurge: 1
    maxSurge: 1
    maxUnavailable: 1
```

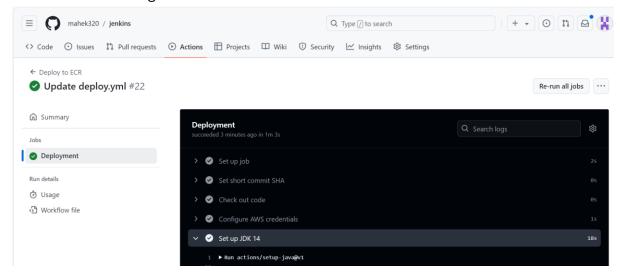
## Vim service.yml

```
apiVersion: v1
kind: Service
metadata:
   name: regapp-service1
labels:
   app: my-app1
spec:
   selector:
   app: my-app1

ports:
   - port: 8080
   targetPort: 8080

type: LoadBalancer
```

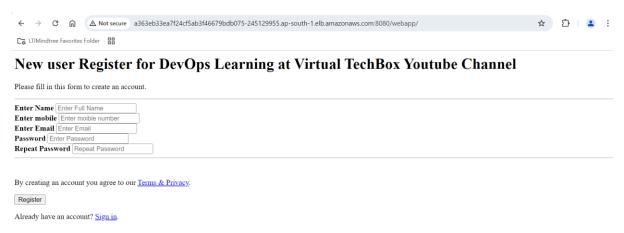
## Click on Actions on git hub



# Kubectl get svc

Paste the external ip on browser

Delete the deployment and service file from cluster terminal



Thank You, Happy Learning

See You Again