
Project-11
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Project:[Magento-EKS(eksctl]

Project: **Deploy Magento on EKS cluster thru eksctl**
[AWS EKS + Cloudshell + CloudFormation]
Reference Video: https://youtu.be/w3iMbnJBRDg [Atiq Rahaman]

Step 1: open cloudshell in AWS and run all the below commands step wise
Step 2: check for the Magento web-App in browser by using Load Balancer DNS link in 8080 port

Task-1 Create Cluster

```
1. Curl --silent --location
"https://github.com/weaveworks/eksctl/releases/latest/download/eksctl_$(uname -s)_amd64.tar.gz" |
tar xz -C /tmp
2. sudo mv /tmp/eksctl /usr/local/bin
3. eksctl create cluster --name magento-cluster

4. aws eks update-kubeconfig --region ap-south-1 --name magento-cluster
```

Task-2 Install Helm

```
1. sudo yum install openssl -y
2. curl https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm-3 > get_helm.sh
3. chmod 700 get_helm.sh
4. ./get_helm.sh
```

Task-3 Setup EBS CSI addon (OIDC IAM) for EKS:

```
1.oidc_id=$(aws eks describe-cluster --name magento-cluster --query
    "cluster.identity.oidc.issuer" --output text | cut -d '/' -f 5)
2.aws iam list-open-id-connect-providers | grep $oidc_id | cut -d "/" -f4
3.eksctl utils associate-iam-oidc-provider --cluster magento-cluster --approve
```

Task-4 IAM Role for eksctl:

```
eksctl create iamserviceaccount \
--name ebs-csi-controller-sa \
--namespace kube-system \
--cluster magento-cluster \
--attach-policy-arn arn:aws:iam::aws:policy/service-role/AmazonEBSCSIDriverPolicy \
--approve \
--role-only \
--role-name AmazonEKS_EBS_CSI_DriverRoleMagento
```

#Adding EBS CSI to EKS:

```
eksctl create addon --name aws-ebs-csi-driver --cluster magento-cluster --service-account-role-
arn arn:aws:iam::167613117387:role/AmazonEKS_EBS_CSI_DriverRoleMagento --force
```

#Install Magento thru Helm:

```
helm repo add bitnami https://charts.bitnami.com/bitnami
helm install my-release bitnami/magento
```

#Set the Hostname:

```
export APP_HOST=$(kubectl get svc --namespace default my-release-magento --template "{{ range
(index .status.loadBalancer.ingress 0) }}{{ . }}{{ end }}")
  export APP_PASSWORD=$(kubectl get secret --namespace default my-release-magento -o
jsonpath="{.data.magento-password}" | base64 -d)
  export DATABASE_ROOT_PASSWORD=$(kubectl get secret --namespace default my-release-mariadb -o
jsonpath="{.data.mariadb-root-password}" | base64 -d)
  export APP_DATABASE_PASSWORD=$(kubectl get secret --namespace default my-release-mariadb -o
jsonpath="{.data.mariadb-password}" | base64 -d)

helm upgrade --namespace default my-release bitnami/magento \
    --set
magentoHost=$APP_HOST,magentoPassword=$APP_PASSWORD,mariadb.auth.rootPassword=$DATABASE_ROOT_PASS
WORD,mariadb.auth.password=$APP_DATABASE_PASSWORD

echo Password : $(kubectl get secret --namespace default my-release-magento -o
jsonpath="{.data.magento-password}" | base64 -d)
```

#delete Total Cluster

```
eksctl delete cluster magento-cluster
```