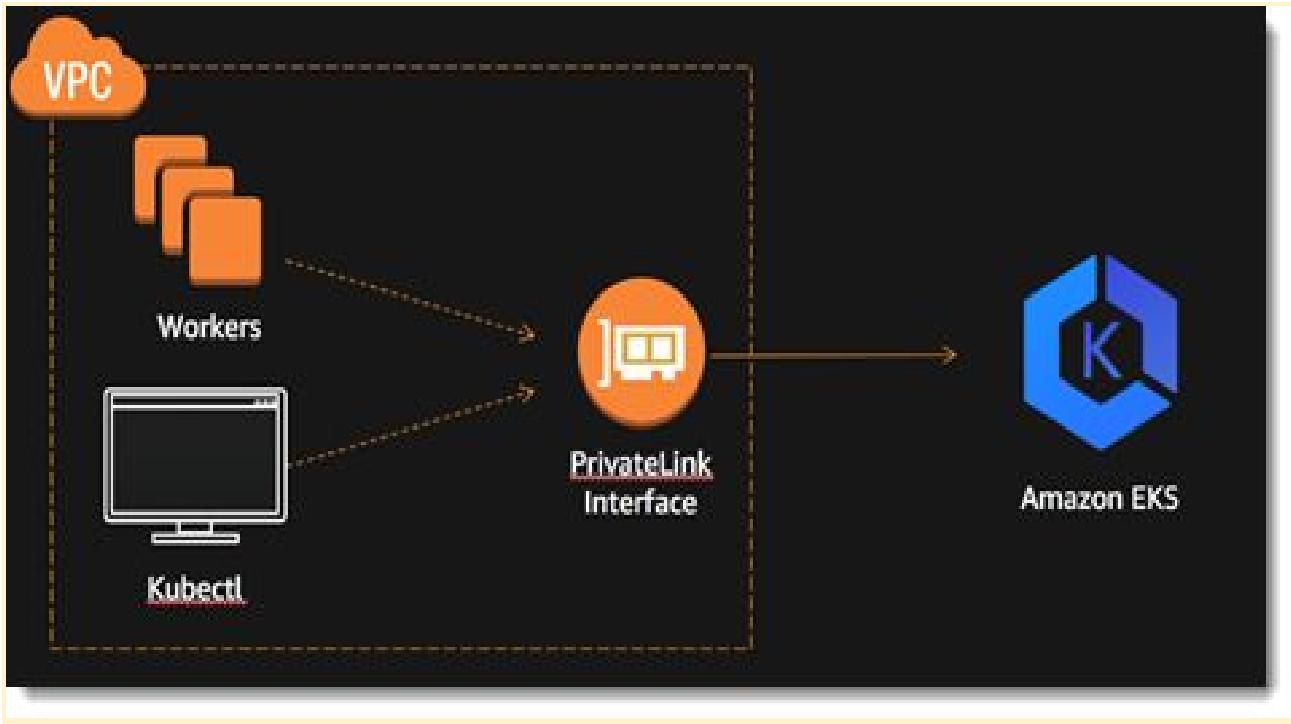


DAY 1:



> EKS IS A MANAGED SERVICE BY THE AWS

Container orchestration (kubernetes)

To contact master we used kubectl cmd

Api server takes care of image

Api server contact to scheduler for resources

Scheduler contact the docker engine and launch the docker engines

Scheduler contacts kubelet

Scheduler contacts kubecontroller and sends req to docker engine

Master nodes monitors the whole scenario

>> to outsource the master (eg. public cloud)

EKS(elastic kubernetes services)

By automatically clicking the master in one click we configured the whole scenario

Main used case of this services is to manage the master

Master manage the nodes also (like providing ram,cpu and resources to the nodes also)

This service install all the resources(like docker ,iproute etc.)

Joining master to nodes is known as join/register

Eks ask how many worker nodes u want
Ram and cpu??

EKS is a fully managed service(kubernetes as a service)

The screenshot shows the AWS EKS Service console. On the left, there's a sidebar with 'Amazon Container Services' and 'Amazon EKS' sections. The main area features a large title 'Elastic Kubernetes Service (Amazon EKS)' with the subtitle 'Fully managed Kubernetes control plane'. Below it, a text box states: 'Amazon EKS is a managed service that makes it easy for you to use Kubernetes on AWS without needing to install and operate your own Kubernetes control plane.' To the right, a 'Create EKS cluster' wizard is open, prompting for a 'Cluster name' with a 'Next step' button. Below the wizard, a 'Pricing' section compares 'EKS Control Plane' and 'Worker nodes' costs.

The screenshot shows a Google search results page for 'aws cli'. The search bar contains 'aws cli'. Below the search bar, there are filters for 'All', 'Images', 'Videos', 'Books', 'News', and 'More'. The results section starts with a snippet from aws.amazon.com about the AWS Command Line Interface (CLI). It includes links for 'Install the AWS CLI on Windows', 'Configuring the AWS CLI', 'Installing the AWS CLI', 'AWS CLI Command Reference', 'Aws', and 'AWS Command'. At the bottom of the results, there's a link 'More results from amazon.com »'.

The screenshot shows a browser address bar with the URL 'https://eksctl.io/'. The browser interface includes a search bar, a toolbar with various icons, and status indicators at the bottom right.

```
C:\Users\user>aws --version
aws-cli/2.0.17 Python/3.7.7 Windows/10 botocore/2.0.0dev21
C:\Users\user>aws configure
AWS Access Key ID [*****YS7D]:
AWS Secret Access Key [*****2cmL]:
Default region name [ap-south-1]:
Default output format [json]:
```

```
C:\Users\user>aws configure list
```

Name	Value	Type	Location
---	----	----	-----
profile	<not set>	None	None
access_key	*****YS7D	shared-credentials-file	
secret_key	*****2cmL	shared-credentials-file	
region	ap-south-1	config-file	~/.aws/config

AWS EKS SERVICE | DAY 1: ~ Google | Billing Management | Amazon EKS | AWS EKS - Google | CLI - Google Docs | eksctl | +

← → 🔒 ap-south-1.console.aws.amazon.com/eks/home?region=ap-south-1#/clusters

apps New Tab Search _G_ Inbox (157) - 2019p... _M_ Inbox (1,144) - vish... _G_ Inbox (252) - 2019p... _M_ Gmail _YouTube_ Maps _29th APRIL - Googl...

aws Services Resource Groups

Amazon Container Services

EKS > Clusters

Clusters (0)

Find clusters by name

Cluster name Kubernetes version Status

No clusters

You do not have any clusters.

Create cluster

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Type here to search

Windows 10 taskbar: ENG IN 7:40 PM 7/4/2020

```
C:\Users\user>aws eks cluster help
usage: aws [options] <command> <subcommand> [<subcommand> ...] [parameters]
To see help text, you can run:
```

```
aws help
aws <command> help
aws <command> <subcommand> help
aws: error: argument operation: Invalid choice, valid choices are:
```

```
create-cluster          | create-fargate-profile
create-nodegroup        | delete-cluster
delete-fargate-profile | delete-nodegroup
describe-cluster       | describe-fargate-profile
describe-nodegroup     | describe-update
list-clusters          | list-fargate-profiles
list-nodegroups         | list-tags-for-resource
list-updates            | tag-resource
untag-resource          | update-cluster-config
update-cluster-version  | update-nodegroup-config
update-nodegroup-version | update-kubeconfig
get-token               | wait
help
```

```
C:\Users\user>aws eks list-clusters
Eksctl
```

<https://github.com/weaveworks/eksctl>

Need help? Join [Weave Community Slack](#).

Installation

To download the latest release, run:

```
curl --silent --location "https://github.com/weaveworks/eksctl/releases/latest/download/eksctl_$(uname -s)_amd64.tar.gz"
sudo mv /tmp/eksctl /usr/local/bin
```

Alternatively, macOS users can use [Homebrew](#):

```
brew tap weaveworks/tap
brew install weaveworks/tap/eksctl
```

and Windows users can use [chocolatey](#):

```
chocolatey install eksctl
```

or [scoop](#):

DAY 1: eksctl_Windows_amd64.zip - WinRAR (only 1 days left to buy a license)

File Commands Tools Favorites Options Extraction path and options

General Advanced

Destination path (will be created if does not exist)
C:\Program Files\Kubernetes\Minikube

Update mode
 Extract and replace files
 Extract and update files
 Fresh existing files only

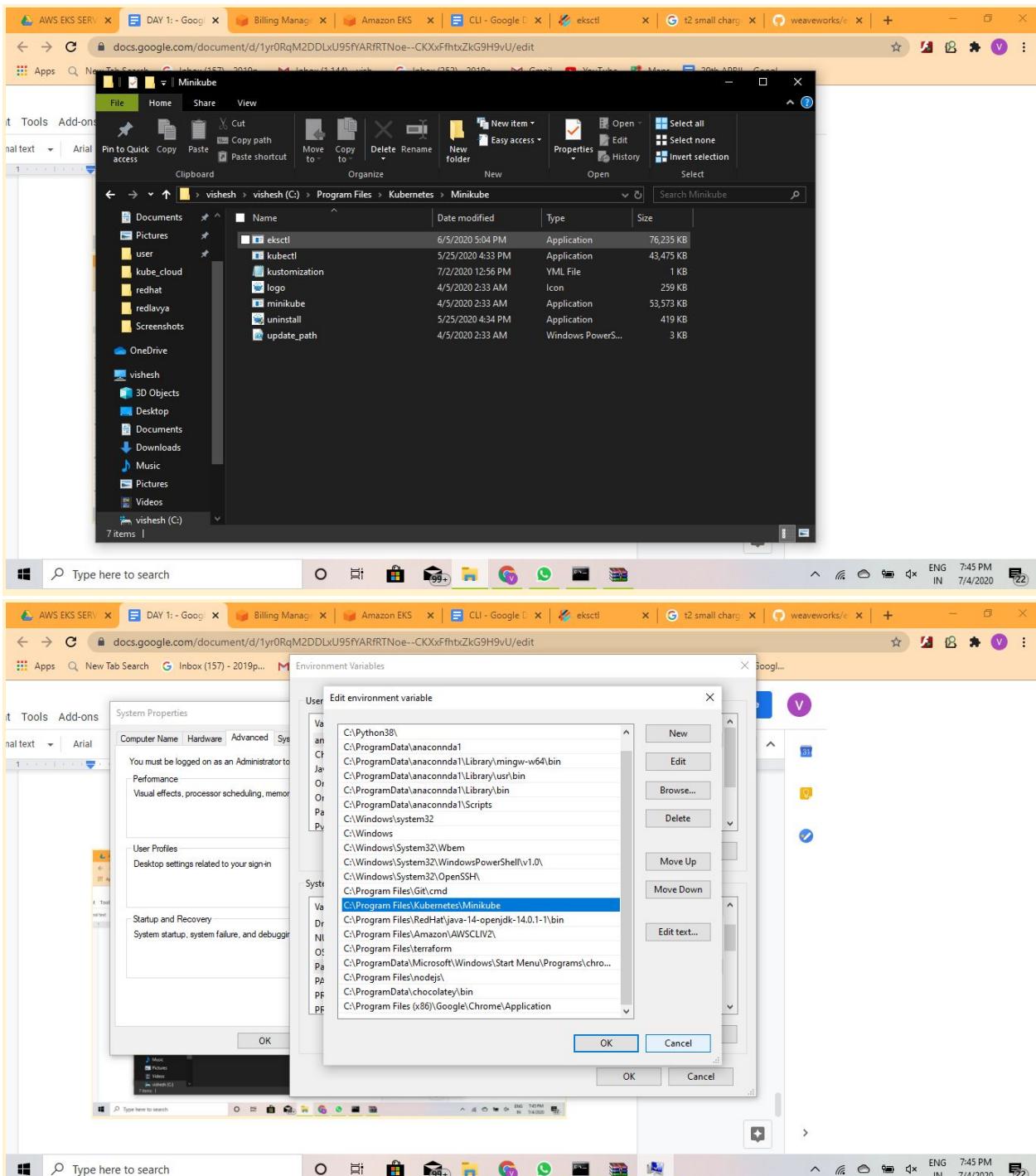
Overwrite mode
 Ask before overwrite
 Overwrite without prompt
 Skip existing files
 Rename automatically

Miscellaneous
 Extract archives to subfolders
 Keep broken files
 Display files in Explorer

Save settings

OK Cancel Help

Total 78,064,128 bytes in 1 file



```
C:\Users\user>eksctl version
0.21.0
C:\Users\user>eksctl get cluster
```

Step 2: Choose an Instance Type

Currently selected: t2.small (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 2 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
<input type="checkbox"/>	General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes

clusterConfig

```

region: ap-south=1

nodegroups:
ng1:
    capacity: 2
    type: t2.micro

ng2:
    capacity: 1
    type: t2.small

```

C:\Users\user>cd C:\Users\user\Desktop\eks cloud

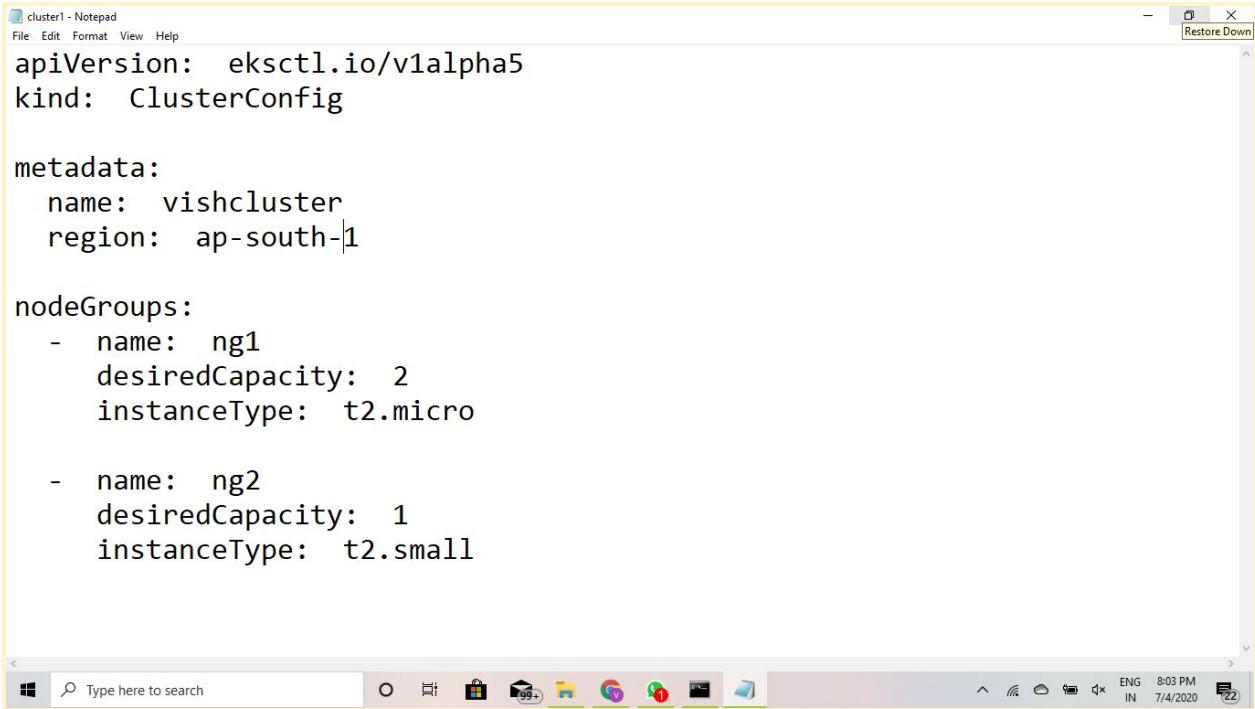
C:\Users\user\Desktop\eks cloud>dir

Volume in drive C is vishesh

Volume Serial Number is 1CF6-F84B

Directory of C:\Users\user\Desktop\eks cloud

```
07/04/2020 08:00 PM <DIR> .
07/04/2020 08:00 PM <DIR> ..
07/04/2020 08:01 PM 274 cluster1.yml
 1 File(s)   274 bytes
 2 Dir(s) 143,656,542,208 bytes free
```



```
cluster1 - Notepad
File Edit Format View Help
apiVersion: eksctl.io/v1alpha5
kind: ClusterConfig

metadata:
  name: vishcluster
  region: ap-south-1

nodeGroups:
  - name: ng1
    desiredCapacity: 2
    instanceType: t2.micro

  - name: ng2
    desiredCapacity: 1
    instanceType: t2.small
```

C:\Users\user\Desktop\eks cloud>eksctl create cluster -f cluster1.yml

Eksctl create the stack

The image displays two screenshots of the AWS Management Console interface.

AWS Management Console Screenshot:

- AWS services sidebar:** Shows a search bar with "cloud" typed in, and a list of services including AWS Cloud Map, Cloud9, CloudFormation, CloudFront, CloudHSM, and CloudSearch.
- Explore AWS section:** Promotes the AWS Console Mobile App with a download link.
- Free Digital Training section:** Offers access to 350+ self-paced online courses covering AWS products and services.

CloudFormation Home Page Screenshot:

- Header:** Shows tabs for AWS EKS SERVICE - Google Docs, DAY 1: - Google Docs, Billing Management Console, CLI - Google Docs, and AWS Management Console.
- Section:** "Management & Governance" and "AWS CloudFormation".
- Text:** "Model and provision all your cloud infrastructure".
- Text:** "AWS CloudFormation provides a common language to describe and provision all the infrastructure resources in your environment in a safe, repeatable way."
- Section:** "How it works".
- List:** 1. Code your infrastructure using the CloudFormation template language in the YAML or JSON format, or start from many available sample templates. 2. Use AWS CloudFormation via the browser console, command line tools, or APIs to create a stack based on your template code.
- Call-to-action:** "Create a CloudFormation stack" button.
- Getting started:** Links to "What is AWS CloudFormation", "Getting started with CloudFormation", "Learn template basics", and "Quick starts".

```
* get-token
* help
* list-clusters
* list-fargate-profiles
* list-nodegroups
* list-tags-for-resource
* list-updates
* tag-resource
* untag-resource
C:\Users\Vimal Daga>aws eks list-clusters
```

```
* list-clusters
* list-fargate-profiles
* list-nodegroups
* list-tags-for-resource
* list-updates
* tag-resource
* untag-resource
C:\Users\Vimal Daga>aws eks list-clusters
{
    "clusters": [ ]
```

The screenshot shows the AWS CloudFormation console interface. On the left, the 'Stacks (1)' section displays a single stack named 'eksctl-lwcluster-cluster' with a status of 'CREATE_IN_PROGRESS'. The creation time is listed as '2020-07-04 20:03:49 UTC+0530'. On the right, the 'Search resources' section lists four resources with their logical IDs, physical IDs, types, and statuses:

Logical ID	Physical ID	Type	Status	Status reason
NATGateway	nat-012222182cdc24ae6	AWS::EC2::Nat Gateway	✓ CREATE_COMPLETE	-
NATIP	13.234.40.181	AWS::EC2::EIP	✓ CREATE_COMPLETE	-
NATPrivateSubnet	eksct-NATPr-1MNXQGLUHRLQ1	AWS::EC2::Route	✓ CREATE_COMPLETE	-
NATPrivateSubnet	eksct-NATPr-1MNXQGLUHRLQ2	AWS::EC2::Route	✓ CREATE_COMPLETE	-

CloudFormation > Stacks > eksctl-lwcluster-cluster

Stacks (1)

Filter by stack name

Active View nested

eksctl-lwcluster-cluster
2020-07-04 20:03:49 UTC+0530
CREATE_IN_PROGRESS

Tags (3)
Stack-level tags will apply to all supported resources in your stack. You can add up to 200 unique tags for each stack.

Search tags

Key	Value
-----	-------

Stack policy
Defines the resources that you want to protect from unintentional updates during a stack update.

Rollback configuration
Specifies alarms for CloudFormation to monitor when creating and updating the stack. If the operation breaches an alarm threshold, CloudFormation rolls it back.

Notification options

*cluster1 - Notepad

```
File Edit Format View Help
apiVersion: eksctl.io/v1alpha5
kind: ClusterConfig

metadata:
  name: vishcluster
  region: ap-south-1

nodeGroups:
  - name: ng1
    desiredCapacity: 2
    instanceType: t2.micro
    ssh:
      publicKeyFileName: mykey1111.pem

  - name: ng2
    desiredCapacity: 1
    instanceType: t2.small
```

Type here to search

Windows Start button

System tray: ENG IN 8:33 PM 7/4/2020 [Battery icon]

AWS EKS SERVICE - Go | DAY 11 - Google Docs | Billing Management Co | CLI - Google Docs | Coronavirus Outbreak | Key pairs | EC2 Manager | +

← → C ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#KeyPairs:

Apps New Tab Search Google Inbox (157) - 2019... Gmail YouTube Maps 29th APRIL - Google...

visheshgargavi Mumbai Support

New EC2 Experience Tell us what you think

Volumes Snapshots Lifecycle Manager

NETWORK & SECURITY

- Security Groups New
- Elastic IPs New
- Placement Groups New
- Key Pairs New**
- Network Interfaces

LOAD BALANCING

- Load Balancers
- Target Groups

AUTO SCALING

- Launch Configurations
- Auto Scaling Groups

Key pairs (2)

Name	Fingerprint	ID
keycloudclass	07:b3:8e:10:84:3b:03:c9:2c:1c:69:bc:03:fc:6d:04:3a:13:d0:73	key-053144ee90adf15fa
mykey1111.pem	03:4a:50:2d:7e:6d:ff:e5:cd:05:4e:ce:38:aa:1f:e3:9b:1e:bb:eb	key-0d8423231619bb6be

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Type here to search

File Home Share View

Pin to Quick access Copy Paste Copy path Move to Copy to Paste shortcut Delete Rename New folder New item Open Easy access Properties Select all Select none Select all Select none Invert selection

Clipboard Organize New Open Select

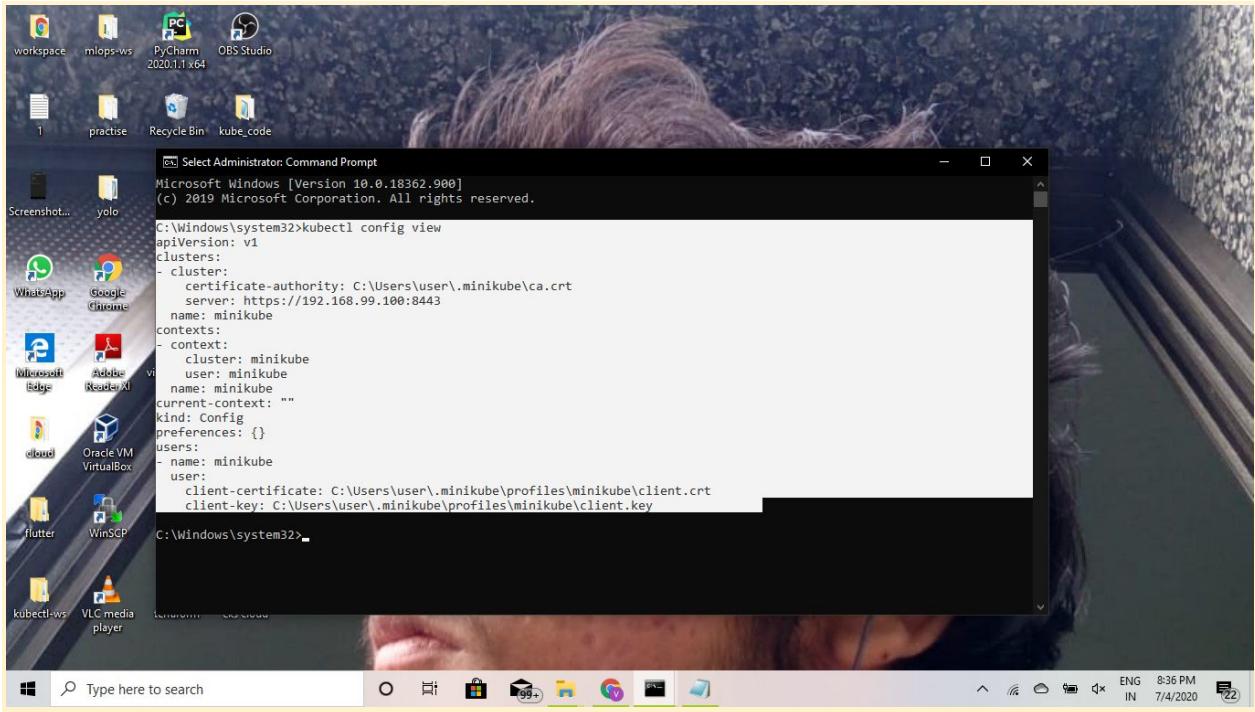
C:\Users\user\.kube

Name	Date modified	Type	Size
cache	5/27/2020 9:04 PM	File folder	
http-cache	5/27/2020 9:04 PM	File folder	
config	7/4/2020 7:36 PM	File	1 KB

Search .kube

Documents Pictures user kube_cloud redhat redlaya Screenshots OneDrive vishesh 3D Objects Desktop Documents Downloads Music Pictures Videos vishesh (C) New Volume (E) New Volume (F) Network

3 items | 1 item selected 457 bytes | Type here to search



remove this file

C:\Users\user>aws eks update-kubeconfig --name vishcluster

> namespace is where all the pods launches (it is like a room)

Kubectl get ns

ns stands for namespace

> kubectl create namespae lwns

> kubectl get ns

> kubectl config view

The screenshot shows a web browser window with multiple tabs open at the top. The active tab is 'hub.docker.com'. The page displays a message: 'Thank you for attending DockerCon 2020! Watch the recordings.' Below this, there's a search bar with 'visheshgargavi' selected in the dropdown, followed by a search input field and a 'Create Repository' button. A sidebar on the right shows a network diagram icon and a link to 'Create an Organization'. The main content area lists three repositories under the user 'visheshgargavi': 'vishesh' (updated 7 hours ago), 'jenkins' (updated 10 days ago), and 'prometheus' (updated 10 days ago). At the bottom of the screen, a Windows taskbar is visible with various pinned icons and a system tray showing the date and time.

services:

- ClusterIP
- NodePort
- LoadBalancer

The screenshot displays two pages from the AWS Management Console:

- Load Balancers Page:** The left sidebar shows navigation links for ELASTIC BLOCK STORE, NETWORK & SECURITY, LOAD BALANCING (selected), and AUTO SCALING. The main content area shows a table with no load balancers found, with columns for Name, DNS name, State, VPC ID, Availability Zones, and Type. A search bar at the top allows filtering by tags and attributes or keyword.
- Create Volume Page:** The left sidebar shows the Volumes link. The main content area is titled "Create Volume" and contains fields for Volume Type (Provisioned IOPS SSD (io1)), Size (GiB) (4 GiB), IOPS (3000), Availability Zone (ap-south-1a), Throughput (MB/s) (Not applicable), Snapshot ID (Select a snapshot), and Encryption (Encrypt this volume). There are also fields for Key (128 characters maximum) and Value (256 characters maximum).

```
C:\Users\user\Desktop\eks cloud>aws eks list-clusters
{
    "clusters": []
}
```

```
C:\Users\user\Desktop\eks cloud>eksctl get cluster
No clusters found
C:\Users\user\Desktop\eks cloud>eksctl create cluster -f cluster1.yml
[i] eksctl version 0.21.0
[i] using region ap-south-1
[i] setting availability zones to [ap-south-1a ap-south-1b ap-south-1c]
[i] subnets for ap-south-1a - public:192.168.0.0/19 private:192.168.96.0/19
[i] subnets for ap-south-1b - public:192.168.32.0/19 private:192.168.128.0/19
[i] subnets for ap-south-1c - public:192.168.64.0/19 private:192.168.160.0/19
[i] nodegroup "ng1" will use "ami-073969767527f7306" [AmazonLinux2/1.16]
[i] nodegroup "ng2" will use "ami-073969767527f7306" [AmazonLinux2/1.16]
[i] using Kubernetes version 1.16
[i] creating EKS cluster "vishcluster" in "ap-south-1" region with un-managed nodes
[i] 2 nodegroups (ng1, ng2) were included (based on the include/exclude rules)
[i] will create a CloudFormation stack for cluster itself and 2 nodegroup stack(s)
[i] will create a CloudFormation stack for cluster itself and 0 managed nodegroup
stack(s)
[i] if you encounter any issues, check CloudFormation console or try 'eksctl utils
describe-stacks --region=ap-south-1 --cluster=vishcluster'
[i] CloudWatch logging will not be enabled for cluster "vishcluster" in "ap-south-1"
[i] you can enable it with 'eksctl utils update-cluster-logging --region=ap-south-1
--cluster=vishcluster'
```

Screenshot of the AWS CloudFormation console showing the 'eksctl-vishcluster-cluster' stack details.

Stacks (1)

- eksctl-vishcluster-cluster**
2020-07-05 00:18:12 UTC+0530
CREATE_IN_PROGRESS

Overview

Stack ID	Description
arn:aws:cloudformation:ap-south-1:410914255776:stack/eksctl-vishcluster-cluster/e98bcf30-be26-11ea-af0a-0a95c9550e3e	EKS cluster (dedicated VPC: true, dedicated IAM: true) [created and managed by eksctl]

Status: CREATE_IN_PROGRESS

Root stack: -

Created time: 2020-07-05 00:18:12 UTC+0530

Deleted time: -

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Screenshot of the AWS CloudFormation console showing the 'eksctl-vishcluster-cluster' stack details, focusing on Tags.

Tags (3)

Stack-level tags will apply to all supported resources in your stack. You can add up to 200 unique tags for each stack.

Key	Value
alpha.eksctl.io/cluster-name	vishcluster
alpha.eksctl.io/eksctl-version	0.21.0
eksctl.cluster.k8s.io/v1alpha1/cluster-name	vishcluster

Stack policy

Defines the resources that you want to protect from unintentional updates during a stack update.

Feedback English (US) Type here to search © 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use ENG IN 12:20 AM 7/5/2020

The screenshot shows the AWS EKS Cluster configuration page. On the left, the sidebar lists 'Amazon Container Services' with 'Amazon ECS' and 'Clusters' under it, and 'Amazon EKS' with 'Clusters' under it. The main panel is titled 'Cluster configuration' and displays the following details:

- Kubernetes version: 1.16
- Status: Creating
- Platform version: eks.1

Below this, there are tabs for 'Details', 'Compute', 'Networking', 'Logging', 'Updates', and 'Tags'. The 'Details' tab is selected.

Details

API server endpoint	OpenID Connect provider URL	Cluster ARN
(...)	(...)	arn:aws:eks:ap-south-1:1410914255776:cluster/vishcluster

At the bottom, there are sections for 'Creation time' and 'Certificate authority'.

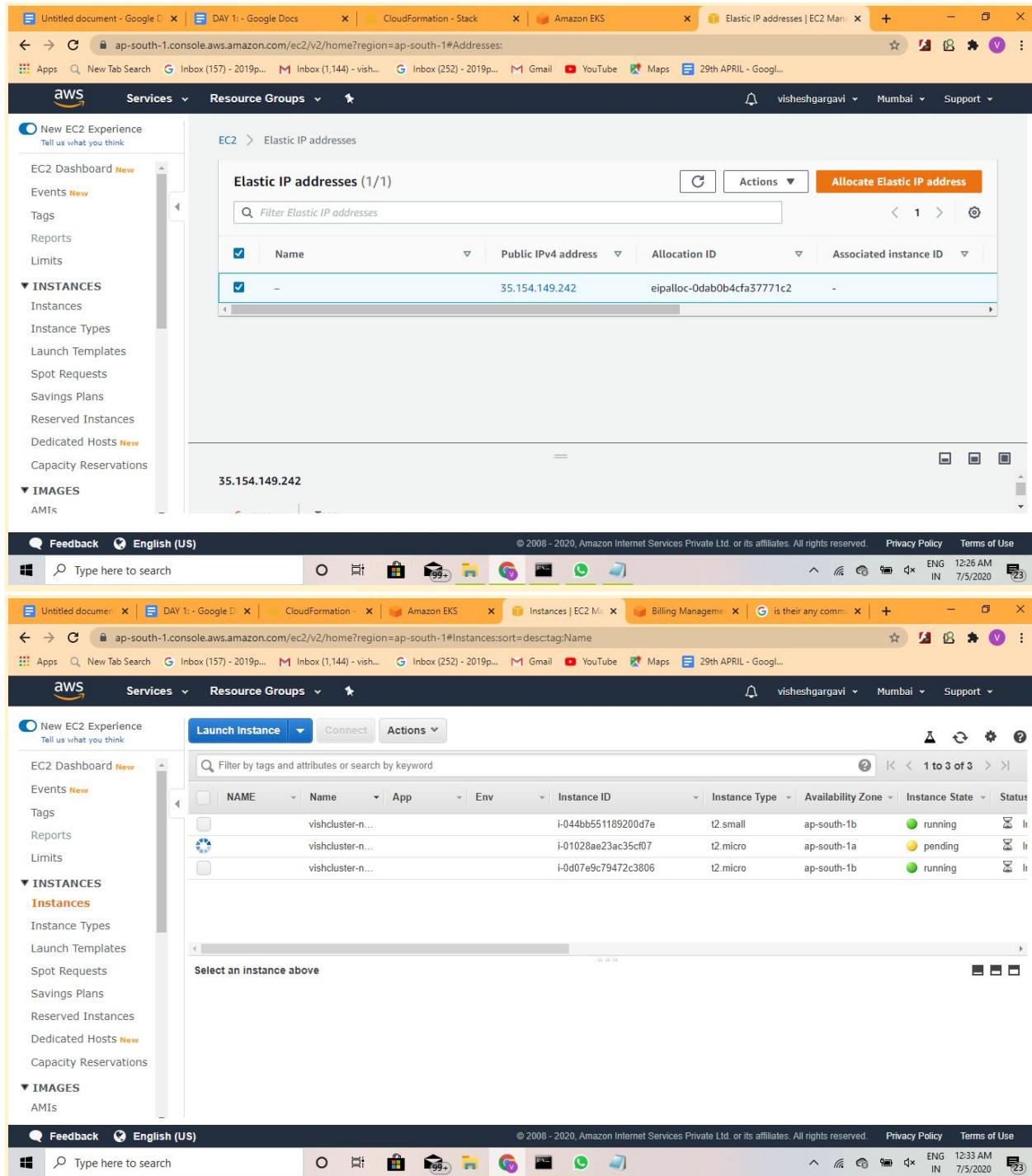
The screenshot shows the AWS CloudFormation Stacks page. The sidebar shows 'CloudFormation > Stacks'. The main panel displays the following information:

Stacks (1)

Stack name	Status	Created time	Description
eksctl-vishcluster-cluster	CREATE_IN_PROGRESS	2020-07-05 00:18:12 UTC+0530	EKS cluster (dedicated VPC: true, dedicated IAM: true...)

At the bottom, there are buttons for 'Create stack' and 'Delete'.

Feedback English (US)



The image shows two screenshots of the AWS Management Console interface, specifically the EC2 service.

Elastic IP Addresses:

- Left Sidebar:** Shows navigation links for EC2 Dashboard, Events, Tags, Reports, Limits, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images (AMIs).
- Main Content:** Titled "Elastic IP addresses (1/1)". A table lists one entry:

Name	Public IPv4 address	Allocation ID	Associated instance ID
-	35.154.149.242	eipalloc-0dab0b4cfa37771c2	-
- Bottom:** Shows the IP address 35.154.149.242.

Instances:

- Left Sidebar:** Shows navigation links for EC2 Dashboard, Events, Tags, Reports, Limits, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images (AMIs).
- Main Content:** Titled "Launch Instance". A table lists three instances:

NAME	Name	App	Env	Instance ID	Instance Type	Availability Zone	Instance State	Status
vishcluster-n...	vishcluster-n...			i-044bb551189200d7e	t2.small	ap-south-1b	running	Ir
vishcluster-n...	vishcluster-n...			i-01028ae23ac35cf07	t2.micro	ap-south-1a	pending	Ir
vishcluster-n...	vishcluster-n...			i-0d07e9c79472c3806	t2.micro	ap-south-1b	running	Ir
- Bottom:** Shows the message "Select an instance above".

Administrator: Command Prompt

```
C:\Windows\system32>kubectl config view
apiVersion: v1
clusters: null
contexts: null
current-context: ""
kind: Config
preferences: {}
users: null

C:\Windows\system32>aws eks update-kubeconfig --name vishcluster
Added new context arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster to C:\Users\user\.kube\config

C:\Windows\system32>
```

C:\Users\user\Desktop\eks cloud>
C:\Users\user\Desktop\eks cloud>
C:\Users\user\Desktop\eks cloud>

> namespace is where all the pods launches (it is like a room)
 Kubectl get ns
 ns stands for namespace
 > kubectl create namespace lwns
 > kubectl get ns

Type here to search

File Home Share View

Pin to Quick access Copy Paste Copy path Move to Copy to Delete Rename New folder New item Open Select all Easy access Edit Select none

Clipboard

Organize

File Edit Format View Help

```
apiVersion: v1
clusters:
- cluster:
  - certificate-authority-data: LS0tLS1CRUdJTiBDRVJUSUZJQ0FURS0tLS0tCk1JSUN5RENDQWJDZ0F3SU
    MkdyUmpkRGNhV2E3MS9LNHRYVStDbks1eDFGRWl2UkkkVEDzYnZwOEVVWDzBMWZYcDZDT25sSlQjwE1rcH1yCkhrd0
    server: https://25FC90E2497CAEE2CCD6C09FEBAE8357.y14.ap-south-1.eks.amazonaws.com
  contexts:
  - context:
    - cluster: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
      user: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
    name: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
  current-context: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
  kind: Config
  preferences: {}
  users:
  - name: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
  user:
    exec:
      apiVersion: client.authentication.k8s.io/v1alpha1
      args:
      - --region
      - ap-south-1
      - eks
      - get-token
    cluster: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
    user: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
  
```

3 items | 1 item selected 2.16 KB |

Type here to search

NAME	Instance ID	Instance Type	Availability Zone	Instance State	Status
vishcluster-n...	i-044bb551189200d7e	t2.small	ap-south-1b	running	2/2
vishcluster-n...	i-01028ae23ac35cf07	t2.micro	ap-south-1a	running	2/2
vishcluster-n...	i-0d07e9c79472c3806	t2.micro	ap-south-1b	running	2/2

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
```

```
No resources found in default namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get ns
```

NAME	STATUS	AGE
default	Active	17m
kube-node-lease	Active	17m
kube-public	Active	17m
kube-system	Active	17m

```
C:\Windows\system32>kubectl config view
apiVersion: v1
clusters: null
contexts: null
current-context: ""
kind: Config
preferences: {}
users: null
```

```
C:\Windows\system32>aws eks update-kubeconfig --name vishcluster
```

```
Added new context arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster to
```

```
C:\Users\user\.kube\config
```

```
C:\Users\user\Desktop\eks cloud>kubectl create ns lwns
namespace/lwns created
```

```
C:\Users\user\Desktop\eks cloud>kubectl get ns
NAME      STATUS   AGE
default   Active  17m
kube-node-lease Active 17m
kube-public  Active 17m
kube-system  Active 17m
lwns       Active  3s
```

```
C:\Users\user\Desktop\eks cloud>kube config view
'kube' is not recognized as an internal or external command,
operable program or batch file.
```

```
C:\Users\user\Desktop\eks cloud>kubectl config view
apiVersion: v1
clusters:
- cluster:
  certificate-authority-data: DATA+OMITTED
  server:
  https://25FC9DE2497CAEE2CCD6C09FEBEAB357.yl4.ap-south-1.eks.amazonaws.com
  name: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
contexts:
- context:
  cluster: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
  user: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
  name: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
current-context: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
kind: Config
preferences: {}
users:
- name: arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster
  user:
    exec:
      apiVersion: client.authentication.k8s.io/v1alpha1
      args:
        - --region
        - ap-south-1
        - eks
        - get-token
        - --cluster-name
```

```

- vishcluster
command: aws
env: null
C:\Users\user\Desktop\eks cloud>eksctl get cluster
NAME      REGION
vishcluster  ap-south-1

C:\Users\user\Desktop\eks cloud>kubectl get nodes
NAME                  STATUS   ROLES   AGE   VERSION
ip-192-168-16-37.ap-south-1.compute.internal  Ready   <none>  12m
v1.16.8-eks-fd1ea7
ip-192-168-46-202.ap-south-1.compute.internal  Ready   <none>  13m
v1.16.8-eks-fd1ea7
ip-192-168-6-225.ap-south-1.compute.internal  Ready   <none>  13m
v1.16.8-eks-fd1ea7

C:\Users\user\Desktop\eks cloud>kubectl describe nodes
Name:           ip-192-168-16-37.ap-south-1.compute.internal
Roles:          <none>
Labels:         alpha.eksctl.io/cluster-name=vishcluster
                alpha.eksctl.io/instance-id=i-044bb551189200d7e
                alpha.eksctl.io/nodegroup-name=ng2
                beta.kubernetes.io/arch=amd64
                beta.kubernetes.io/instance-type=t2.small
                beta.kubernetes.io/os=linux
                failure-domain.beta.kubernetes.io/region=ap-south-1
                failure-domain.beta.kubernetes.io/zone=ap-south-1b
                kubernetes.io/arch=amd64
                kubernetes.io/hostname=ip-192-168-16-37.ap-south-1.compute.internal
                kubernetes.io/os=linux
Annotations:    node.alpha.kubernetes.io/ttl: 0
                volumes.kubernetes.io/controller-managed-attach-detach: true
CreationTimestamp: Sun, 05 Jul 2020 00:35:36 +0530
Taints:          <none>
Unschedulable:   false
Lease:
  HolderIdentity: ip-192-168-16-37.ap-south-1.compute.internal
  AcquireTime:    <unset>
  RenewTime:     Sun, 05 Jul 2020 00:48:05 +0530
Conditions:
  Type        Status  LastHeartbeatTime           LastTransitionTime        Reason
Message

```

MemoryPressure False Sun, 05 Jul 2020 00:47:28 +0530 Sun, 05 Jul 2020 00:35:36
+0530 KubeletHasSufficientMemory kubelet has sufficient memory available
DiskPressure False Sun, 05 Jul 2020 00:47:28 +0530 Sun, 05 Jul 2020 00:35:36
+0530 KubeletHasNoDiskPressure kubelet has no disk pressure
PIDPressure False Sun, 05 Jul 2020 00:47:28 +0530 Sun, 05 Jul 2020 00:35:36
+0530 KubeletHasSufficientPID kubelet has sufficient PID available
Ready True Sun, 05 Jul 2020 00:47:28 +0530 Sun, 05 Jul 2020 00:36:26 +0530
KubeletReady kubelet is posting ready status

Addresses:

InternalIP: 192.168.16.37
ExternalIP: 13.126.237.192
Hostname: ip-192-168-16-37.ap-south-1.compute.internal
InternalDNS: ip-192-168-16-37.ap-south-1.compute.internal
ExternalDNS: ec2-13-126-237-192.ap-south-1.compute.amazonaws.com

Capacity:

attachable-volumes-aws-ebs: 39
cpu: 1
ephemeral-storage: 20959212Ki
hugepages-2Mi: 0
memory: 2039140Ki
pods: 11

Allocatable:

attachable-volumes-aws-ebs: 39
cpu: 940m
ephemeral-storage: 18242267924
hugepages-2Mi: 0
memory: 1412452Ki
pods: 11

System Info:

Machine ID: 92b658ce037c44cd8735472c951e1cce
System UUID: EC2136B8-A115-D1BB-A5B5-65FD4CDA03EA
Boot ID: 3230a5bc-6b25-4b4d-8cd3-5150ed5608c1
Kernel Version: 4.14.181-140.257.amzn2.x86_64
OS Image: Amazon Linux 2
Operating System: linux
Architecture: amd64
Container Runtime Version: docker://19.3.6
Kubelet Version: v1.16.8-eks-fd1ea7
Kube-Proxy Version: v1.16.8-eks-fd1ea7
ProviderID: aws://ap-south-1b/i-044bb551189200d7e
Non-terminated Pods: (2 in total)

Namespace	Name	CPU Requests	CPU Limits	Memory Requests
Memory Limits AGE				
-----	-----	-----	-----	-----
kube-system	aws-node-zvkgz	10m (1%)	0 (0%)	0 (0%)
12m				0 (0%)
kube-system	kube-proxy-9ltlg	100m (10%)	0 (0%)	0 (0%)
12m				0 (0%)
Allocated resources:				
(Total limits may be over 100 percent, i.e., overcommitted.)				
Resource	Requests	Limits		
-----	-----	-----		
cpu	110m (11%)	0 (0%)		
memory	0 (0%)	0 (0%)		
ephemeral-storage	0 (0%)	0 (0%)		
hugepages-2Mi	0 (0%)	0 (0%)		
attachable-volumes-aws-ebs	0	0		

Events:

Type	Reason	Age	From	Message
---	---	---	---	-----
Normal	Starting	12m	kube-proxy, ip-192-168-16-37.ap-south-1.compute.internal	
	Starting kube-proxy.			

Name:	ip-192-168-46-202.ap-south-1.compute.internal
Roles:	<none>
Labels:	alpha.eksctl.io/cluster-name=vishcluster alpha.eksctl.io/instance-id=i-01028ae23ac35cf07 alpha.eksctl.io/nodegroup-name=ng1 beta.kubernetes.io/arch=amd64 beta.kubernetes.io/instance-type=t2.micro beta.kubernetes.io/os=linux failure-domain.beta.kubernetes.io/region=ap-south-1 failure-domain.beta.kubernetes.io/zone=ap-south-1a kubernetes.io/arch=amd64 kubernetes.io/hostname=ip-192-168-46-202.ap-south-1.compute.internal kubernetes.io/os=linux
Annotations:	node.alpha.kubernetes.io/ttl: 0 volumes.kubernetes.io/controller-managed-attach-detach: true
CreationTimestamp:	Sun, 05 Jul 2020 00:34:38 +0530
Taints:	<none>
Unschedulable:	false
Lease:	

HolderIdentity: ip-192-168-46-202.ap-south-1.compute.internal

AcquireTime: <unset>

RenewTime: Sun, 05 Jul 2020 00:47:59 +0530

Conditions:

Type	Status	LastHeartbeatTime	LastTransitionTime	Reason
Message				
---	---	-----	-----	-----
MemoryPressure	False	Sun, 05 Jul 2020 00:48:00 +0530	Sun, 05 Jul 2020 00:34:38 +0530	KubeletHasSufficientMemory kubelet has sufficient memory available
DiskPressure	False	Sun, 05 Jul 2020 00:48:00 +0530	Sun, 05 Jul 2020 00:34:38 +0530	KubeletHasNoDiskPressure kubelet has no disk pressure
PIDPressure	False	Sun, 05 Jul 2020 00:48:00 +0530	Sun, 05 Jul 2020 00:34:38 +0530	KubeletHasSufficientPID kubelet has sufficient PID available
Ready	True	Sun, 05 Jul 2020 00:48:00 +0530	Sun, 05 Jul 2020 00:35:29 +0530	KubeletReady kubelet is posting ready status

Addresses:

InternalIP: 192.168.46.202

ExternalIP: 13.232.197.57

Hostname: ip-192-168-46-202.ap-south-1.compute.internal

InternalDNS: ip-192-168-46-202.ap-south-1.compute.internal

ExternalDNS: ec2-13-232-197-57.ap-south-1.compute.amazonaws.com

Capacity:

attachable-volumes-aws-ebs: 39

cpu: 1

ephemeral-storage: 20959212Ki

hugepages-2Mi: 0

memory: 1006948Ki

pods: 4

Allocatable:

attachable-volumes-aws-ebs: 39

cpu: 940m

ephemeral-storage: 18242267924

hugepages-2Mi: 0

memory: 642404Ki

pods: 4

System Info:

Machine ID: 43b9a39877e64fa6ab3d5579773d9780

System UUID: EC274705-A98C-9FAD-FB8A-BD58832E7407

Boot ID: 02c19d79-5d9c-4314-97a6-cbe1b4037949

Kernel Version: 4.14.181-140.257.amzn2.x86_64

OS Image: Amazon Linux 2

Operating System: linux

Architecture:	amd64				
Container Runtime Version:	docker://19.3.6				
Kubelet Version:	v1.16.8-eks-fd1ea7				
Kube-Proxy Version:	v1.16.8-eks-fd1ea7				
ProviderID:	aws://ap-south-1a/i-01028ae23ac35cf07				
Non-terminated Pods:	(4 in total)				
Namespace	Name	CPU Requests	CPU Limits	Memory	
Requests	Memory	Limits	AGE		
-----	-----	-----	-----	-----	-----
kube-system (0%)	aws-node-8bmd8 13m	10m (1%)	0 (0%)	0 (0%)	0
kube-system 170Mi (27%)	coredns-6856799b8d-2knp4 20m	100m (10%)	0 (0%)	70Mi (11%)	
kube-system 170Mi (27%)	coredns-6856799b8d-pdvjt 20m	100m (10%)	0 (0%)	70Mi (11%)	
kube-system (0%)	kube-proxy-fqlpz 13m	100m (10%)	0 (0%)	0 (0%)	0
Allocated resources:					
(Total limits may be over 100 percent, i.e., overcommitted.)					
Resource	Requests	Limits			
-----	-----	-----	-----	-----	-----
cpu	310m (32%)	0 (0%)			
memory	140Mi (22%)	340Mi (54%)			
ephemeral-storage	0 (0%)	0 (0%)			
hugepages-2Mi	0 (0%)	0 (0%)			
attachable-volumes-aws-ebs	0	0			
Events:					
Type	Reason	Age	From	Message	
---	---	---	---	-----	-----
Normal	NodeHasSufficientMemory	13m (x8 over 13m)	kubelet, ip-192-168-46-202.ap-south-1.compute.internal	Node	
ip-192-168-46-202.ap-south-1.compute.internal	status is now: NodeHasSufficientMemory				
Normal	NoDiskPressure	13m (x8 over 13m)	kubelet, ip-192-168-46-202.ap-south-1.compute.internal	Node	
ip-192-168-46-202.ap-south-1.compute.internal	status is now: NoDiskPressure				
Normal	Starting	13m	kube-proxy, ip-192-168-46-202.ap-south-1.compute.internal	Starting kube-proxy.	

Name:	ip-192-168-6-225.ap-south-1.compute.internal
Roles:	<none>
Labels:	alpha.eksctl.io/cluster-name=vishcluster

alpha.eksctl.io/instance-id=i-0d07e9c79472c3806
alpha.eksctl.io/nodegroup-name=ng1
beta.kubernetes.io/arch=amd64
beta.kubernetes.io/instance-type=t2.micro
beta.kubernetes.io/os=linux
failure-domain.beta.kubernetes.io/region=ap-south-1
failure-domain.beta.kubernetes.io/zone=ap-south-1b
kubernetes.io/arch=amd64
kubernetes.io/hostname=ip-192-168-6-225.ap-south-1.compute.internal
kubernetes.io/os=linux

Annotations: node.alpha.kubernetes.io/ttl: 0

volumes.kubernetes.io/controller-managed-attach-detach: true

CreationTimestamp: Sun, 05 Jul 2020 00:34:41 +0530

Taints: <none>

Unschedulable: false

Lease:

HolderIdentity: ip-192-168-6-225.ap-south-1.compute.internal

AcquireTime: <unset>

RenewTime: Sun, 05 Jul 2020 00:48:02 +0530

Conditions:

Type	Status	LastHeartbeatTime	LastTransitionTime	Reason
Message				
---	-----	-----	-----	-----
MemoryPressure	False	Sun, 05 Jul 2020 00:47:33 +0530	Sun, 05 Jul 2020 00:34:41 +0530	KubeletHasSufficientMemory kubelet has sufficient memory available
DiskPressure	False	Sun, 05 Jul 2020 00:47:33 +0530	Sun, 05 Jul 2020 00:34:41 +0530	KubeletHasNoDiskPressure kubelet has no disk pressure
PIDPressure	False	Sun, 05 Jul 2020 00:47:33 +0530	Sun, 05 Jul 2020 00:34:41 +0530	KubeletHasSufficientPID kubelet has sufficient PID available
Ready	True	Sun, 05 Jul 2020 00:47:33 +0530	Sun, 05 Jul 2020 00:35:31 +0530	KubeletReady kubelet is posting ready status

Addresses:

InternalIP: 192.168.6.225

ExternalIP: 15.206.164.245

Hostname: ip-192-168-6-225.ap-south-1.compute.internal

InternalDNS: ip-192-168-6-225.ap-south-1.compute.internal

ExternalDNS: ec2-15-206-164-245.ap-south-1.compute.amazonaws.com

Capacity:

attachable-volumes-aws-ebs: 39

cpu: 1

ephemeral-storage: 20959212Ki

hugepages-2Mi: 0

memory:	1006948Ki					
pods:	4					
Allocatable:						
attachable-volumes-aws-ebs:	39					
cpu:	940m					
ephemeral-storage:	18242267924					
hugepages-2Mi:	0					
memory:	642404Ki					
pods:	4					
System Info:						
Machine ID:	dcf0703d8f804c89a2e7749c2367d672					
System UUID:	EC2626FB-B22D-6E33-72B1-C694E23C21B7					
Boot ID:	403a77d6-2d08-4693-8f87-49d1bf607f7a					
Kernel Version:	4.14.181-140.257.amzn2.x86_64					
OS Image:	Amazon Linux 2					
Operating System:	linux					
Architecture:	amd64					
Container Runtime Version:	docker://19.3.6					
Kubelet Version:	v1.16.8-eks-fd1ea7					
Kube-Proxy Version:	v1.16.8-eks-fd1ea7					
ProviderID:	aws://ap-south-1b/i-0d07e9c79472c3806					
Non-terminated Pods:	(2 in total)					
Namespace	Name	CPU Requests	CPU Limits	Memory Requests	Memory Limits	Age
-----	-----	-----	-----	-----	-----	-----
kube-system	aws-node-tpwlb	10m (1%)	0 (0%)	0 (0%)	0 (0%)	13m
kube-system	kube-proxy-b97mx	100m (10%)	0 (0%)	0 (0%)	0 (0%)	13m
Allocated resources:						
(Total limits may be over 100 percent, i.e., overcommitted.)						
Resource	Requests	Limits				
-----	-----	-----				
cpu	110m (11%)	0 (0%)				
memory	0 (0%)	0 (0%)				
ephemeral-storage	0 (0%)	0 (0%)				
hugepages-2Mi	0 (0%)	0 (0%)				
attachable-volumes-aws-ebs	0	0				
Events:						
Type	Reason	Age	From	Message		
-----	-----	-----	-----	-----		

```
Normal Starting 13m kube-proxy, ip-192-168-6-225.ap-south-1.compute.internal
Starting kube-proxy.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get ns
NAME      STATUS  AGE
default   Active  21m
kube-node-lease  Active  21m
kube-public  Active  21m
kube-system  Active  21m
lwns       Active  4m
```

```
C:\Users\user\Desktop\eks cloud>kubectl config set-context --current --namespace=lwns
Context "arn:aws:eks:ap-south-1:410914255776:cluster/vishcluster" modified.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
```

```
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl cluster-info
```

```
Kubernetes master is running at
```

```
https://25FC9DE2497CAEE2CCD6C09FEBEAB357.yl4.ap-south-1.eks.amazonaws.com
```

```
CoreDNS is running at
```

```
https://25FC9DE2497CAEE2CCD6C09FEBEAB357.yl4.ap-south-1.eks.amazonaws.com/api/v1/namespaces/kube-system/services/kube-dns:dns/proxy
```

```
To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'.
```

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with options like EC2 Dashboard, Events, Tags, Reports, Limits, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images. The main area displays a table of instances:

NAME	Name	App	Env	Instance ID	Instance Type	Availability Zone	Instance State	Status
vishcluster-n...	vishcluster-n...			i-044bb551189200d7e	t2.small	ap-south-1b	running	2/2
vishcluster-n...	vishcluster-n...			i-01028ae23ac35cf07	t2.micro	ap-south-1a	running	2/2
vishcluster-n...	vishcluster-n...			i-0d07e9c79472c3806	t2.micro	ap-south-1b	running	2/2

Below the table, detailed information for one instance is shown:

- Secondary private IPs:** 192.168.9.162, 192.168.11.146, 192.168.10.133
- VPC ID:** vpc-0e4980e24f894810b (eksctl-vishcluster-cluster/VPC)
- Subnet ID:** subnet-0c56fc70bd468b810 (eksctl-vishcluster-cluster/SubnetPublicAPPSOUTH1B)
- Network interfaces:** eth0
- Scheduled events:** No scheduled events
- AMI ID:** amazon-eks-node-1.16-v20200618 (ami-0739697675277306)
- Platform details:** Linux/UNIX
- Usage operation:** RunInstances

```
C:\Users\user\Desktop\eks cloud>kubectl create deployment myweb
```

```
--image=vimal13/apache-webserver-php
```

```
deployment.apps/myweb created
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
myweb-79b48fb9f5-8m6lh	0/1	ContainerCreating	0	8s

```
C:\Users\user\Desktop\eks cloud>kubectl get deploy
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
myweb	1/1	1	1	17s

```
C:\Users\user\Desktop\eks cloud>kubectl get pods -o wide
```

NAME	READY	STATUS	RESTARTS	AGE	IP	NODE
------	-------	--------	----------	-----	----	------

NOMINATED NODE	READINESS	GATES
----------------	-----------	-------

myweb-79b48fb9f5-8m6lh	1/1	Running	0	33s	192.168.9.162
------------------------	-----	---------	---	-----	---------------

ip-192-168-16-37.ap-south-1.compute.internal	<none>	<none>
--	--------	--------

```
C:\Users\user\Desktop\eks cloud>kubectl scale deployment myweb --replicas=3
```

```
deployment.apps/myweb scaled
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
myweb-79b48fb9f5-4mg9z	0/1	ContainerCreating	0	3s
myweb-79b48fb9f5-8m6lh	1/1	Running	0	2m47s

```
myweb-79b48fb9f5-sldmt 0/1 ContainerCreating 0 3s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods -o wide
```

NAME	READY	STATUS	RESTARTS	AGE	IP	NODE
NOMINATED NODE READINESS GATES						
myweb-79b48fb9f5-4mg9z	1/1	Running	0	7s	192.168.10.133	
ip-192-168-16-37.ap-south-1.compute.internal	<none>	<none>				
myweb-79b48fb9f5-8m6lh	1/1	Running	0	2m51s	192.168.9.162	
ip-192-168-16-37.ap-south-1.compute.internal	<none>	<none>				
myweb-79b48fb9f5-sldmt	1/1	Running	0	7s	192.168.11.146	
ip-192-168-16-37.ap-south-1.compute.internal	<none>	<none>				

A screenshot of a Microsoft Edge browser window. The address bar shows the URL: "Not secure | a754626d648554af2838c7748af4c730-398880582.ap-south-1.elb.amazonaws.com". The main content area displays the output of a curl command:

```
welcome to vimal web server for testingeth0: flags=4163 mtu 9001
inet 192.168.10.133 netmask 255.255.255.255 broadcast 0.0.0.0
ether 76:a1:c8:3c:a5:22 txqueuelen 0 (Ethernet)
RX packets 11 bytes 1313 (1.2 KiB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 4 bytes 256 (256.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73 mtu 65536
inet 127.0.0.1 netmask 255.0.0.0
loop txqueuelen 1000 (Local Loopback)
RX packets 0 bytes 0 (0.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 0 bytes 0 (0.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
C:\Users\user\Desktop\eks cloud>kubectl get services
```

```
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get deployments
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
myweb	3/3	3	3	3m40s

```
C:\Users\user\Desktop\eks cloud>kubectl expose deployment myweb
```

```
--type=LoadBalancer --port 80
```

```
service/myweb exposed
```

```
C:\Users\user\Desktop\eks cloud>kubectl get all
```

NAME	READY	STATUS	RESTARTS	AGE
NOMINATED NODE READINESS GATES				

```
pod/myweb-79b48fb9f5-4mg9z 1/1 Running 0 99s
pod/myweb-79b48fb9f5-8m6lh 1/1 Running 0 4m23s
pod/myweb-79b48fb9f5-sldmt 1/1 Running 0 99s
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP
PORT(S)	AGE		
service/myweb	LoadBalancer	10.100.203.252	
a754626d648554af2838c7748af4c730-398880582.ap-south-1.elb.amazonaws.com			
80:30857/TCP	9s		

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/myweb	3/3	3	3	4m23s

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/myweb-79b48fb9f5	3	3	3	4m23s

welcome to vimal web server for testingeth0: flags=4163 mtu 9001
 inet 192.168.11.146 netmask 255.255.255.255 broadcast 0.0.0.0
 ether d6:68:c1:86:b6:cb txqueuelen 0 (Ethernet)
 RX packets 38 bytes 3119 (3.0 KiB)
 RX errors 0 dropped 0 overruns 0 frame 0
 TX packets 18 bytes 1204 (1.1 KiB)
 TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73 mtu 65536
 inet 127.0.0.1 netmask 255.0.0.0
 loop txqueuelen 1000 (Local Loopback)
 RX packets 0 bytes 0 (0.0 B)
 RX errors 0 dropped 0 overruns 0 frame 0
 TX packets 0 bytes 0 (0.0 B)
 TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

```
C:\Users\user\Desktop\eks cloud>kubectl delete all --all
pod "myweb-79b48fb9f5-4mg9z" deleted
pod "myweb-79b48fb9f5-8m6lh" deleted
pod "myweb-79b48fb9f5-sldmt" deleted
service "myweb" deleted
deployment.apps "myweb" deleted
```

```
replicaset.apps "myweb-79b48fb9f5" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl create deployment myweb  
--image=vimal13/apache-webserver-php  
deployment.apps/myweb created
```

```
C:\Users\user\Desktop\eks cloud>kubectl scale deployment myweb --replicas=3  
deployment.apps/myweb scaled
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods -o wide
```

NAME	READY	STATUS	RESTARTS	AGE	IP	NODE
NOMINATED NODE READINESS GATES						
myweb-79b48fb9f5-bqqlt	0/1	ContainerCreating	0	4s	<none>	
ip-192-168-16-37.ap-south-1.compute.internal		<none>			<none>	
myweb-79b48fb9f5-spv7p	1/1	Running	0	18s	192.168.9.162	
ip-192-168-16-37.ap-south-1.compute.internal		<none>			<none>	
myweb-79b48fb9f5-xdb8m	0/1	ContainerCreating	0	4s	<none>	
ip-192-168-16-37.ap-south-1.compute.internal		<none>			<none>	

```
C:\Users\user\Desktop\eks cloud>kubectl expose deployment myweb  
--type=LoadBalancer --port 80  
service/myweb exposed
```

```
C:\Users\user\Desktop\eks cloud>kubectl get services
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP
PORT(S)	AGE		
myweb	LoadBalancer	10.100.51.208	
		ae6670969098c42a48b12b9d5f7f133a-1777910929.ap-south-1.elb.amazonaws.com	
80:31916/TCP	4s		

```
C:\Users\user\Desktop\eks cloud>kubectl get all
```

NAME	READY	STATUS	RESTARTS	AGE
pod/myweb-79b48fb9f5-bqqlt	1/1	Running	0	28s
pod/myweb-79b48fb9f5-spv7p	1/1	Running	0	42s
pod/myweb-79b48fb9f5-xdb8m	1/1	Running	0	28s

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP
PORT(S)	AGE		
service/myweb	LoadBalancer	10.100.51.208	
		ae6670969098c42a48b12b9d5f7f133a-1777910929.ap-south-1.elb.amazonaws.com	
80:31916/TCP	13s		

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/myweb	3/3	3	3	43s

NAME	DESIRED	CURRENT	READY	AGE
------	---------	---------	-------	-----

replicaset.apps/myweb-79b48fb9f5	3	3	3	43s
----------------------------------	---	---	---	-----

C:\Users\user\Desktop\eks cloud>kubectl describe service/myweb

Name: myweb
Namespace: lwns
Labels: app=myweb
Annotations: <none>
Selector: app=myweb
Type: LoadBalancer
IP: 10.100.51.208

LoadBalancer Ingress:

ae6670969098c42a48b12b9d5f7f133a-1777910929.ap-south-1.elb.amazonaws.com

Port: <unset> 80/TCP

TargetPort: 80/TCP

NodePort: <unset> 31916/TCP

Endpoints: 192.168.10.133:80,192.168.7.39:80,192.168.9.162:80

Session Affinity: None

External Traffic Policy: Cluster

Events:

Type	Reason	Age	From	Message
------	--------	-----	------	---------

---	---	---	---	-----
-----	-----	-----	-----	-------

Normal EnsuringLoadBalancer 45s service-controller Ensuring load balancer

Normal EnsuredLoadBalancer 43s service-controller Ensured load balancer

C:\Users\user\Desktop\eks cloud>kubectl delete all --all

pod "myweb-79b48fb9f5-bqqlt" deleted

pod "myweb-79b48fb9f5-spv7p" deleted

pod "myweb-79b48fb9f5-xdb8m" deleted

service "myweb" deleted

deployment.apps "myweb" deleted

replicaset.apps "myweb-79b48fb9f5" deleted

C:\Users\user\Desktop\eks cloud>kubectl create deployment myweb

--image=vimal13/apache-webserver-php

deployment.apps/myweb created

C:\Users\user\Desktop\eks cloud>kubectl get all

NAME	READY	STATUS	RESTARTS	AGE
------	-------	--------	----------	-----

pod/myweb-79b48fb9f5-2ltk7	0/1	ContainerCreating	0	4s
----------------------------	-----	-------------------	---	----

```
NAME READY UP-TO-DATE AVAILABLE AGE
deployment.apps/myweb 1/1 1 1 4s
```

```
NAME DESIRED CURRENT READY AGE
replicaset.apps/myweb-79b48fb9f5 1 1 1 4s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods -o wide
```

```
NAME READY STATUS RESTARTS AGE IP NODE
NOMINATED NODE READINESS GATES
```

```
myweb-79b48fb9f5-2ltk7 1/1 Running 0 17s 192.168.9.162
```

```
ip-192-168-16-37.ap-south-1.compute.internal <none> <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl exec -it myweb-79b48fb9f5-2ltk7 -- bash
```

```
[root@myweb-79b48fb9f5-2ltk7 /]# ls
```

```
anaconda-post.log boot etc lib lost+found mnt proc run srv tmp var  
bin dev home lib64 media opt root sbin sys usr
```

```
[root@myweb-79b48fb9f5-2ltk7 /]# ps -aux
```

```
USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND
root 1 0.1 0.9 307840 18364 ? Ss 19:33 0:00 /usr/sbin/httpd -DFOREGROUND
apache 6 0.0 0.5 307840 10684 ? S 19:33 0:00 /usr/sbin/httpd -DFOREGROUND
apache 7 0.0 0.5 307840 10684 ? S 19:33 0:00 /usr/sbin/httpd -DFOREGROUND
apache 8 0.0 0.5 307840 10684 ? S 19:33 0:00 /usr/sbin/httpd -DFOREGROUND
apache 9 0.0 0.5 307840 10684 ? S 19:33 0:00 /usr/sbin/httpd -DFOREGROUND
apache 10 0.0 0.5 307840 10684 ? S 19:33 0:00 /usr/sbin/httpd -DFOREGROUND
```

```
-DFOREGROUND
```

```
root 11 0.0 0.1 11776 2996 pts/0 Ss 19:34 0:00 bash
```

```
root 25 0.0 0.1 47448 3356 pts/0 R+ 19:34 0:00 ps -aux
```

```
[root@myweb-79b48fb9f5-2ltk7 /]# cd /var/www/html
```

```
[root@myweb-79b48fb9f5-2ltk7 html]# ls
```

```
index.php
```

```
[root@myweb-79b48fb9f5-2ltk7 html]# cat index.php
```

```
<body bgcolor='aqua'>
```

```
<pre>
```

```
<?php
```

```
print "welcome to vimal web server for testing";
```

```
print `ifconfig`;
```

```
?>
```

```
</pre>
```

*Untitled - Notepad

File Edit Format View Help

WELCOME LW

Type here to search

Not secure | a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com

Apps New Tab Search Inbox (157) - 2019p... Gmail YouTube Maps 29th APRIL - Google...

```
welcome to vimal web server for testingeth0: flags=4163 mtu 9001
    inet 192.168.9.162 netmask 255.255.255.255 broadcast 0.0.0.0
        ether 6e:2e:98:9d:2b:19 txqueuelen 0 (Ethernet)
            RX packets 59 bytes 4603 (4.4 KiB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 28 bytes 1936 (1.8 KiB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73 mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        loop txqueuelen 1000 (Local Loopback)
            RX packets 0 bytes 0 (0.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 0 bytes 0 (0.0 B)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
[root@myweb-79b48fb9f5-2ltk7 html]# exit
exit
```

```
C:\Users\user\Desktop\eks cloud>dir
Volume in drive C is vishesh
Volume Serial Number is 1CF6-F84B
```

Directory of C:\Users\user\Desktop\eks cloud

```
07/04/2020 10:29 PM <DIR> .
07/04/2020 10:29 PM <DIR> ..
07/05/2020 12:11 AM      272 cluster1.yml
07/04/2020 10:33 PM      198 pvc1.yml
07/04/2020 10:29 PM      169 storage1.yml
               3 File(s)    639 bytes
              2 Dir(s) 143,610,970,112 bytes free
```

```
C:\Users\user\Desktop\eks cloud>kubectl expose deployment myweb --type=NodePort
--port 80
service/myweb exposed
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete service --all
service "myweb" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl expose deployment myweb
--type=LoadBalancer --port 80
service/myweb exposed
```

```
C:\Users\user\Desktop\eks cloud>kubectl get svc
NAME      TYPE      CLUSTER-IP      EXTERNAL-IP
PORT(S)    AGE
myweb     LoadBalancer   10.100.44.126
a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com
80:31480/TCP  10s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
NAME        READY  STATUS  RESTARTS  AGE
myweb-79b48fb9f5-2ltk7  1/1   Running  0          4m42s
```

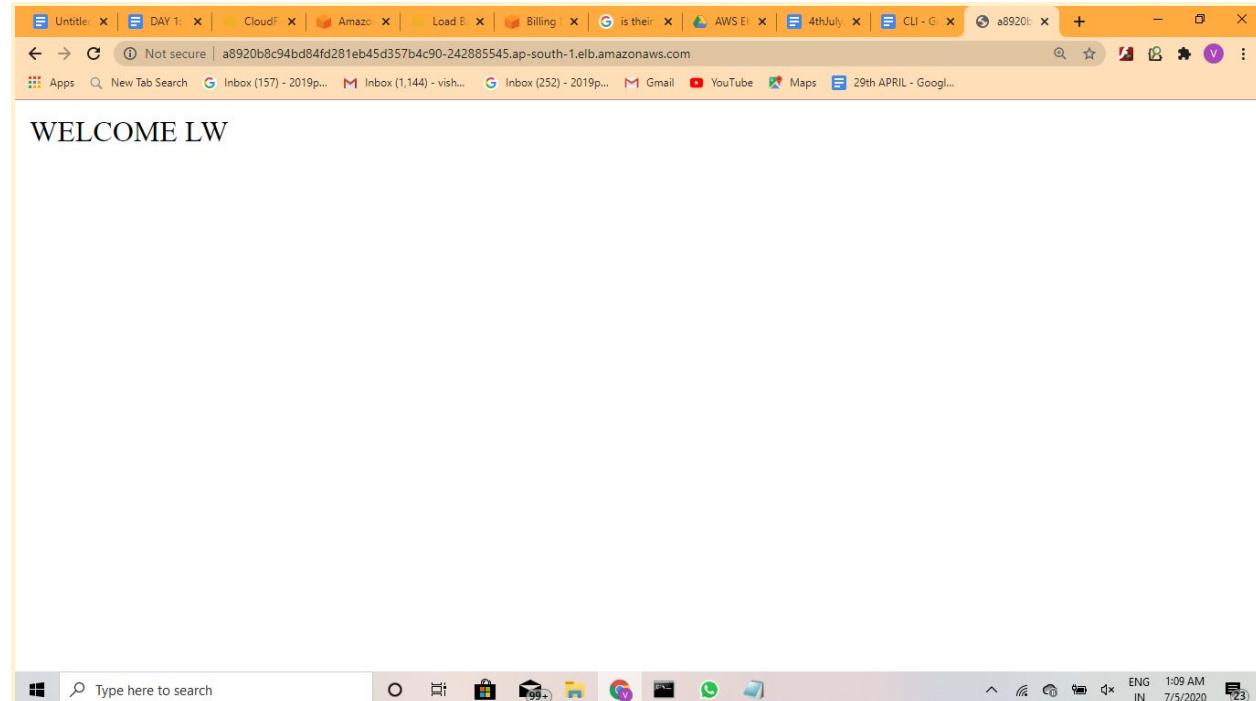
```
C:\Users\user\Desktop\eks cloud>kubectl get all
NAME        READY  STATUS  RESTARTS  AGE
pod/myweb-79b48fb9f5-2ltk7  1/1   Running  0          5m18s
```

```
NAME      TYPE      CLUSTER-IP      EXTERNAL-IP
PORT(S)    AGE
service/myweb     LoadBalancer   10.100.44.126
a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com
80:31480/TCP  88s
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/myweb	1/1	1	1	5m19s

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/myweb-79b48fb9f5	1	1	1	5m19s

```
C:\Users\user\Desktop\eks cloud>kubectl cp index.php  
myweb-79b48fb9f5-2ltk7:/var/www/html/index.php
```



```
C:\Users\user\Desktop\eks cloud>kubectl describe deploy  
Name: myweb  
Namespace: lwns  
CreationTimestamp: Sun, 05 Jul 2020 01:03:07 +0530  
Labels: app=myweb  
Annotations: deployment.kubernetes.io/revision: 1  
Selector: app=myweb  
Replicas: 1 desired | 1 updated | 1 total | 1 available | 0 unavailable  
StrategyType: RollingUpdate  
MinReadySeconds: 0  
RollingUpdateStrategy: 25% max unavailable, 25% max surge  
Pod Template:  
  Labels: app=myweb  
  Containers:  
    apache-webserver-php:
```

Image: vimal13/apache-webserver-php

Port: <none>

Host Port: <none>

Environment: <none>

Mounts: <none>

Volumes: <none>

Conditions:

Type	Status	Reason
------	--------	--------

---	-----	-----
-----	-------	-------

Available	True	MinimumReplicasAvailable
-----------	------	--------------------------

Progressing	True	NewReplicaSetAvailable
-------------	------	------------------------

OldReplicaSets: <none>

NewReplicaSet: myweb-79b48fb9f5 (1/1 replicas created)

Events:

Type	Reason	Age	From	Message
------	--------	-----	------	---------

---	-----	-----	-----	-----
-----	-------	-------	-------	-------

Normal	ScalingReplicaSet	7m18s	deployment-controller	Scaled up replica set
--------	-------------------	-------	-----------------------	-----------------------

myweb-79b48fb9f5 to 1

C:\Users\user\Desktop\eks cloud>kubectl describe pods

Name: myweb-79b48fb9f5-2ltk7

Namespace: lwns

Priority: 0

Node: ip-192-168-16-37.ap-south-1.compute.internal/192.168.16.37

Start Time: Sun, 05 Jul 2020 01:03:07 +0530

Labels: app=myweb

pod-template-hash=79b48fb9f5

Annotations: kubernetes.io/psp: eks.privileged

Status: Running

IP: 192.168.9.162

IPs:

IP: 192.168.9.162

Controlled By: ReplicaSet/myweb-79b48fb9f5

Containers:

apache-webserver-php:

Container ID:

docker://a097cab0fd863bbd4d562666b8a777c57942393e5dfe8fa4e7413129614c232d

Image: vimal13/apache-webserver-php

Image ID:

docker-pullable://vimal13/apache-webserver-php@sha256:faed0a5afaf9f04b6915d73f7247
f6f5a71db9274ca44118d38f4601c0080a91

Port: <none>

```

Host Port: <none>
State: Running
Started: Sun, 05 Jul 2020 01:03:10 +0530
Ready: True
Restart Count: 0
Environment: <none>
Mounts:
  /var/run/secrets/kubernetes.io/serviceaccount from default-token-z4cfp (ro)
Conditions:
  Type        Status
  Initialized  True
  Ready       True
  ContainersReady  True
  PodScheduled  True
Volumes:
  default-token-z4cfp:
    Type:     Secret (a volume populated by a Secret)
    SecretName: default-token-z4cfp
    Optional:  false
    QoS Class: BestEffort
    Node-Selectors: <none>
    Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s
                  node.kubernetes.io/unreachable:NoExecute for 300s
Events:
  Type  Reason  Age   From           Message
  ----  -----  ----  --  -----
  Normal Scheduled 7m33s default-scheduler      Successfully
  assigned lwns/myweb-79b48fb9f5-2ltk7 to ip-192-168-16-37.ap-south-1.compute.internal
  Normal Pulling 7m32s kubelet, ip-192-168-16-37.ap-south-1.compute.internal Pulling
  image "vimal13/apache-webserver-php"
  Normal Pulled 7m30s kubelet, ip-192-168-16-37.ap-south-1.compute.internal
  Successfully pulled image "vimal13/apache-webserver-php"
  Normal Created 7m30s kubelet, ip-192-168-16-37.ap-south-1.compute.internal
  Created container apache-webserver-php
  Normal Started 7m30s kubelet, ip-192-168-16-37.ap-south-1.compute.internal Started
  container apache-webserver-php
C:\Users\user\Desktop\eks\cloud>kubectl get pods
NAME          READY STATUS RESTARTS AGE
myweb-79b48fb9f5-2ltk7 1/1   Running 0       8m12s

C:\Users\user\Desktop\eks\cloud>kubectl delete pod myweb-79b48fb9f5-2ltk7
pod "myweb-79b48fb9f5-2ltk7" deleted

```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
myweb-79b48fb9f5-mdrbw	1/1	Running	0	8s

The screenshot shows a Windows desktop environment. At the top, there is a taskbar with various pinned icons and a search bar. Below the taskbar is a window titled 'Untitled' containing terminal output. The output displays network statistics for interfaces eth0 and lo. The interface eth0 has an IP of 192.168.11.146 and is connected to an Ethernet adapter. The interface lo has an IP of 127.0.0.1 and is connected to a Local Loopback adapter. Below the terminal window is a browser window showing a log file from AWS CloudWatch, specifically the /var/log/messages file for a container named 'vimal'. The log file contains several entries related to kernel activity and networking.

```
Welcome to vimal web server for testingeth0: flags=4163 mtu 9001
    inet 192.168.11.146 netmask 255.255.255.255 broadcast 0.0.0.0
        ether 72:47:1d:17:2b:27 txqueuelen 0 (Ethernet)
            RX packets 47 bytes 3787 (3.6 KiB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 22 bytes 1516 (1.4 KiB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73 mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        loop txqueuelen 1000 (Local Loopback)
            RX packets 0 bytes 0 (0.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 0 bytes 0 (0.0 B)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
```

No resources found in lwns namespace.

```
C:\Users\user\Desktop\eks cloud>kubectl get sc
```

NAME	PROVISIONER	AGE
gp2 (default)	kubernetes.io/aws-ebs	45m

```
C:\Users\user\Desktop\eks cloud>kubectl get pv
```

No resources found in lwns namespace.

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc gp2
```

Name: gp2

IsDefaultClass: Yes

Annotations:

```
kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind":"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kubernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"},storageclass.kubernetes.io/is-default-class=true
```

Provisioner: kubernetes.io/aws-ebs

```
Parameters:      fsType=ext4,type=gp2
AllowVolumeExpansion: <unset>
MountOptions:    <none>
ReclaimPolicy:   Delete
VolumeBindingMode: WaitForFirstConsumer
Events:          <none>
C:\Users\user\Desktop\eks cloud>kubectl create -f pvc1.yml
persistentvolumeclaim/lwpvc1 created
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS  VOLUME  CAPACITY  ACCESS MODES  STORAGECLASS  AGE
lwpvc1    Pending           gp2          5s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv
No resources found in lwns namespace.
```

pvc1 - Notepad

```

apiVersion: v1
kind: PersistentVolumeClaim

metadata:
  name: lwpvc1
spec:
#   storageClassName:
  accessModes:
    - ReadWriteOnce
resources:
  requests:
    storage: 1Gi

```

Type here to search

ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Volumes:sort=desc:createTime

Select Administrator: Command Prompt

```

ReclaimPolicy: Delete
VolumeBindingMode: WaitForFirstConsumer
Events: <none>
C:\Users\user\Desktop\eks cloud>kubectl create -f pvc1.yaml
persistentvolumeclaim/lwpvc1 created

C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS  VOLUME  CAPACITY  ACCESS MODES  STORAGECLASS  AGE
laur1lwpvc1  Pending          gp2           5s

C:\Users\user\Desktop\eks cloud>kubectl get pv
No resources found in lwns namespace.

C:\Users\user\Desktop\eks cloud>kubectl describe sc gp2
ResourceName: gp2
IsDefaultClass: Yes
Annotations: kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind":"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","storageclass.kubernetes.io/is-default-class:true"}}

▼ IMA Provisioner: kubernetes.io/aws-ebs
  Parameters: fsType=ext4,type=gp2
  AllowVolumeExpansion: <unset>
  MountOptions: <none>
  ReclaimPolicy: Delete
  VolumeBindingMode: WaitForFirstConsumer
  Events: <none>

C:\Users\user\Desktop\eks cloud>
```

Snapshots

Lifecycle Manager

NETWORK &

Feedback English (US)

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Type here to search

C:\Users\user\Desktop\eks cloud>kubectl edit deploy myweb

The screenshot shows a Windows desktop environment with two command prompt windows and a Google Chrome browser window.

The top command prompt window (Administrator: Command Prompt - kubectl edit deploy myweb) displays the YAML configuration for a deployment named "myweb". The configuration includes metadata, annotations, and a spec section with a single container definition:

```
apiVersion: apps/v1
kind: Deployment
metadata:
  annotations:
    deployment.kubernetes.io/revision: "1"
  creationTimestamp: "2020-07-04T19:33:07Z"
  generation: 1
  labels:
    app: myweb
  name: myweb
  namespace: lwns
  resourceVersion: "5308"
  selflink: /apis/apps/v1/namespaces/lwns/deployments/myweb
  uid: e2f09052-8dec-43d6-abb7-1e258947c98f
spec:
  progressDeadlineSeconds: 600
  replicas: 1
```

The bottom command prompt window (Administrator: Command Prompt - kubectl edit deploy myweb) shows the same YAML configuration, but the "spec" section is currently selected and highlighted in blue:

```
spec:
  containers:
    - image: vimal13/apache-webserver-php
      imagePullPolicy: Always
      name: apache-webserver-php
      resources: {}
      terminationMessagePath: /dev/termination-log
      terminationMessagePolicy: File
      dnsPolicy: clusterFirst
      restartPolicy: Always
      schedulerName: default-scheduler
      securityContext: {}
      terminationGracePeriodSeconds: 30
```

```

Administrator: Command Prompt - kubectl edit deploy myweb
C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS VOLUME   CAPACITY ACCESS MODES
STORAGECLASS AGE
lwpvc1    Bound   pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26  1Gi      RWO      gp2
7m29s

C:\Users\user\Desktop\eks cloud>kubectl edit deploy myweb
deployment.apps/myweb edited

```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS VOLUME   CAPACITY ACCESS MODES
STORAGECLASS AGE
lwpvc1    Bound   pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26  1Gi      RWO      gp2
7m29s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv
NAME      CAPACITY ACCESS MODES RECLAIM POLICY STATUS
CLAIM    STORAGECLASS REASON AGE
pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26  1Gi      RWO      Delete      Bound
lwns/lwpvc1 gp2          7s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
NAME        READY STATUS  RESTARTS AGE
myweb-79b48fb9f5-mdrbw  0/1   Terminating   0   10m
myweb-7b7c54778f-sfc7v  1/1   Running     0   28s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER      AGE
gp2 (default)  kubernetes.io/aws-ebs  55m
```

Untitled: DAY 1 CloudF Amazon Volume Billing is their AWS CLI - G a8920...

Select Administrator: Command Prompt

```

Parameters: fsType=ext4,type=gp2
AllowVolumeExpansion: <unset>
MountOptions: <none>
ReclaimPolicy: Delete
VolumeBindingMode: WaitForFirstConsumer
Events: <none>

C:\Users\user\Desktop\eks cloud>kubectl edit deploy myweb
deployment.apps/myweb edited

C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS    VOLUME          CAPACITY   ACCESS MODES   STORAGECLASS   AGE
lwpvc1   Bound    pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26   1Gi        RWO            gp2           7m29s

C:\Users\user\Desktop\eks cloud>kubectl get pv
NAME      REASON   AGE
pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26   1Gi        RWO        Delete        Bound    lwns/lwpvc1   gp2
7s

C:\Users\user\Desktop\eks cloud>kubectl get pods
NAME        READY   STATUS    RESTARTS   AGE
myweb-79b48fb9f5-mdrbw  0/1     Terminating   0          10m
myweb-7b7c54778f-sfc7v  1/1     Running     0          28s

C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER   AGE
gp2 (default)  kubernetes.io/aws-ebs  55m

C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER   AGE
gp2 (default)  kubernetes.io/aws-ebs  55m

```

Type here to search

Untitled: DAY 1 CloudF Amazon Volume Billing is their AWS CLI - G a8920...

New Tab Search

Inbox (157) - 2019p... Inbox (1,144) - vish... Inbox (252) - 2019p... Gmail YouTube Maps 29th APRIL - Google...

visheshgargavi Mumbai Support

Create Volume Actions

EC2 Dashboard New

Events New Tags Reports Limits

INSTANCES

Instances Instance Types Launch Templates Spot Requests Savings Plans Reserved Instances Dedicated Hosts New Capacity Reservations

IMAGES

AMIs

Feedback English (US)

Volumes: vol-05cf167aa689abcf (kubernetes-dynamic-pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26)

Description	Status Checks	Monitoring	Tags
Volume ID: vol-05cf167aa689abcf	Outposts ARN: -		
Alarm status: None	Size: 1 GiB		
Snapshot: -	Created: July 5, 2020 at 1:21 AM UTC+5:30		
Availability Zone: ap-south-1b	State: in-use		
Encryption: Not Encrypted	Attachment information: i-044bb551189200d7e (vishcluster-ng2-Node)/dev/xvdbf (attached)		

Type here to search

```
C:\Users\user\Desktop\eks cloud>kubectl get all
NAME           READY   STATUS    RESTARTS   AGE
pod/myweb-7b7c54778f-sfc7v  1/1     Running   0        2m13s
```

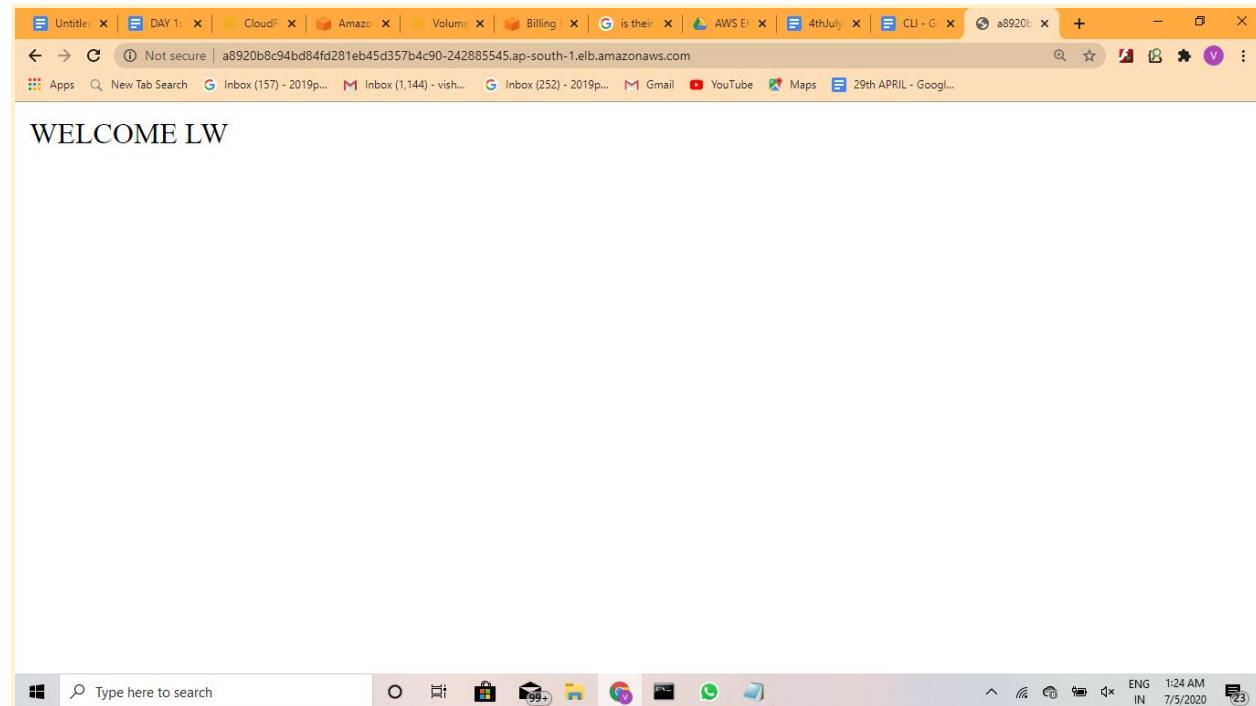
NAME	TYPE	CLUSTER-IP	EXTERNAL-IP
PORT(S)	AGE		

```
service/myweb LoadBalancer 10.100.44.126  
a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com  
80:31480/TCP 17m
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/myweb	1/1	1	1	20m

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/myweb-79b48fb9f5	0	0	0	20m
replicaset.apps/myweb-7b7c54778f	1	1	1	2m14s

```
C:\Users\user\Desktop\eks cloud>kubectl cp index.php  
myweb-7b7c54778f-sfc7v:/var/www/html/index.php
```



```
C:\Users\user\Desktop\eks cloud>kubectl delete pod --all  
pod "myweb-7b7c54778f-sfc7v" deleted
```

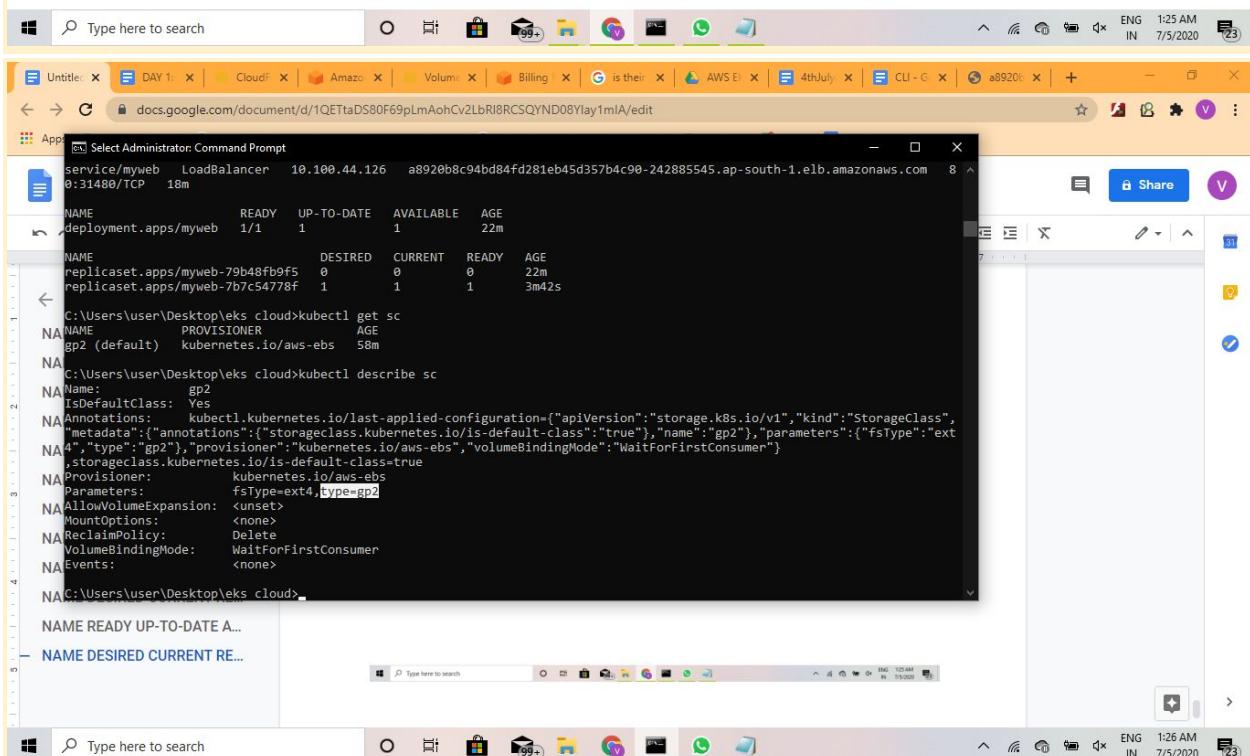
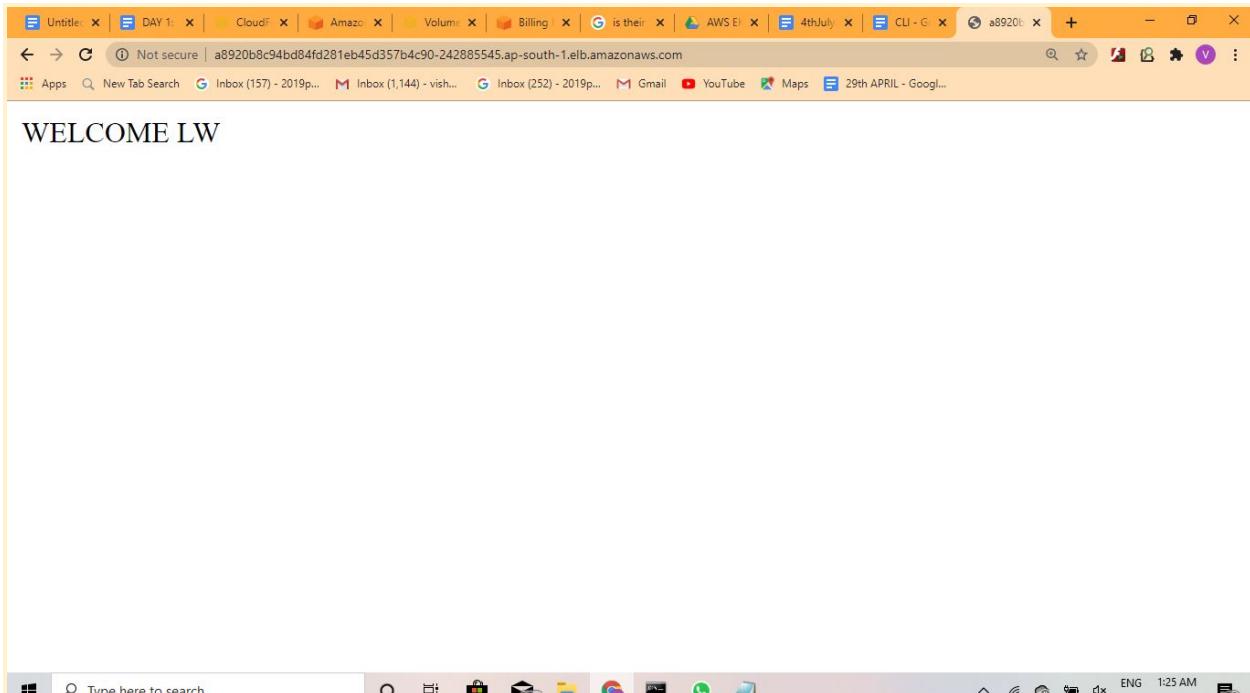
```
C:\Users\user\Desktop\eks cloud>kubectl get all  
NAME READY STATUS RESTARTS AGE  
pod/myweb-7b7c54778f-qwmkq 1/1 Running 0 7s
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP
PORT(S)	AGE		

```
service/myweb LoadBalancer 10.100.44.126  
a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com  
80:31480/TCP 18m
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/myweb	1/1	1	1	22m

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/myweb-79b48fb9f5	0	0	0	22m
replicaset.apps/myweb-7b7c54778f	1	1	1	3m42s



```
C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER      AGE
gp2 (default)  kubernetes.io/aws-ebs  58m
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc
Name: gp2
```

IsDefaultClass: Yes

Annotations:

```
kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind":"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kubernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"}  
,storageclass.kubernetes.io/is-default-class=true
```

Provisioner: kubernetes.io/aws-ebs

Parameters: fsType=ext4,type=gp2

AllowVolumeExpansion: <unset>

MountOptions: <none>

ReclaimPolicy: Delete

VolumeBindingMode: WaitForFirstConsumer

Events: <none>

```
service/myweb LoadBalancer 10.100.44.126 a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com 80:31480/TCP 18m  
NAME READY UP-TO-DATE AVAILABLE AGE  
deployment.apps/myweb 1/1 1 1 22m  
NAME DESIRED CURRENT READY AGE  
replicaset.apps/myweb-79b48fb9f5 0 0 0 22m  
replicaset.apps/myweb-7b7c54778f 1 1 1 3m42s  
C:\Users\user\Desktop\eks cloud>kubectl get sc  
NAME PROVISIONER AGE  
gp2 (default) kubernetes.io/aws-ebs 58m  
NAME  
C:\Users\user\Desktop\eks cloud>kubectl describe sc  
Name: gp2  
IsDefaultClass: Yes  
Annotations: kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind":"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kubernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"}  
Provisioner: kubernetes.io/aws-ebs  
Parameters: fsType=ext4,type=gp2  
AllowVolumeExpansion: <unset>  
MountOptions: <none>  
ReclaimPolicy: Delete  
VolumeBindingMode: WaitForFirstConsumer  
Events: <none>  
NAME READY UP-TO-DATE AGE  
myweb-7b7c54778f-qwmkq 0/1 Terminating 2m10s  
NAME DESIRED CURRENT RE...  
C:\Users\user\Desktop\eks cloud>kubectl delete deployment --all  
deployment.apps "myweb" deleted
```

C:\Users\user\Desktop\eks cloud>kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
myweb-7b7c54778f-qwmkq	0/1	Terminating	0	2m10s

C:\Users\user\Desktop\eks cloud>kubectl get pvc

NAME	STATUS	VOLUME	CAPACITY	ACCESS MODES
STORAGECLASS	AGE			

```
Iwpvc1 Bound pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26 1Gi RWO gp2  
13m
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete pvc --all  
persistentvolumeclaim "Iwpvc1" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc  
No resources found in Iwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv  
No resources found in Iwns namespace.
```

The screenshot shows the AWS CloudFormation console with a stack named "CloudFormationTest". The stack contains two resources:

- AWS::Lambda::Function**:
 - Function Name: CloudFormationTest
 - Description: CloudFormationTest
 - Runtime: Node.js 12.x
 - Memory: 128 MB
 - Timeout: 3.5 seconds
 - Role: CloudFormationTestLambdaRole
 - Policies:
 - CloudWatchLogsFullAccess
- AWS::Logs::LogGroup**:
 - Log Group Name: /aws/lambda/CloudFormationTest
 - Retention Period: 365 days

C:\Users\user\Desktop\eks cloud>kubectl create -f storage1.yaml
storageclass.storage.k8s.io/lwsc1 created

C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME PROVISIONER AGE
gp2 (default) kubernetes.io/aws-ebs 62m

lwsc1 kubernetes.io/aws-ebs 7s

```
pvc1 - Notepad
File Edit Format View Help
apiVersion: v1
kind: PersistentVolumeClaim

metadata:
  name: lwpvc1
spec:
  storageClassName: lwsc1
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 1Gi
```

C:\Users\user\Desktop\eks cloud>kubectl create -f pvc1.yml
persistentvolumeclaim/lwpvc1 created

C:\Users\user\Desktop\eks cloud>kubectl get pvc

NAME	STATUS	VOLUME	CAPACITY	ACCESS MODES	STORAGECLASS	AGE
lwpvc1	Pending				lwsc1	6s

C:\Users\user\Desktop\eks cloud>kubectl get pv
No resources found in lwns namespace.

The image displays two screenshots of a Windows desktop environment, each featuring a command prompt window within a Notepad application. Both windows are titled "Administrator: Command Prompt - kubectl edit".

Top Window (Original Configuration):

```
C:\Users\user\Desktop\eks clou...  
Name: gp2  
IsDefaultClass: Yes  
Annotations: kubectl.kubernetes.io/last-applied-configuration: {"apiVersion": "storage.k8s.io/v1", "kind": "StorageClass", "metadata": {"name": "gp2"}, "spec": {"provisioner": "kubernetes.io/aws-ebs", "reclaimPolicy": "Delete", "volumeBindingMode": "WaitForFirstConsumer", "volumeReclaimPolicy": "Retain", "volumeMode": "Filesystem", "volumeType": "gp2", "allowVolumeExpansion": true, "fsType": "ext4", "parameters": {"type": "gp2"}}, "storageClassName": "gp2", "volumeClaimTemplates": [{"volumeName": "gp2", "accessModes": ["ReadWriteOnce"], "storageClassName": "gp2", "resources": {"requests": {"storage": "10Gi"}, "limits": {"storage": "10Gi"}}, "volumeMode": "Filesystem", "volumeType": "gp2", "reclaimPolicy": "Delete", "fsType": "ext4", "parameters": {"type": "gp2"}}], "creationTimestamp": "2020-07-04T18:57:15Z", "name": "gp2", "resourceVersion": "175", "selfLink": "/apis/storage.k8s.io/v1/storageclasses/gp2", "uid": "18b23c97-6b74-45bc-9b8e-bbf836cecad", "parameters": {"fsType": "ext4", "type": "gp2"}, "provisioner": "kubernetes.io/aws-ebs", "reclaimPolicy": "Delete"}  
C:\Users\user\Desktop\eks clou...  
Name: lwscl  
IsDefaultClass: No  
Annotations: <none>  
Provisioner: kubernetes.io/aws-ebs  
Parameters: type=gp2  
AllowVolumeExpansion: <unset>  
MountOptions: <none>  
ReclaimPolicy: Delete  
VolumeBindingMode: WaitForFirstConsumer  
Events: <none>  
C:\Users\user\Desktop\eks clou...  
Name: lwscl  
IsDefaultClass: No  
Annotations: <none>  
Provisioner: kubernetes.io/aws-ebs  
Parameters: type=gp2  
AllowVolumeExpansion: <unset>  
MountOptions: <none>  
ReclaimPolicy: Retain  
VolumeBindingMode: Immediate  
Events: <none>  
C:\Users\user\Desktop\eks clou...
```

Bottom Window (Modified Configuration):

```
4", "type": "gp2"}, "provisioner": "kubernetes.io/aws-ebs", "reclaimPolicy": "Delete", "volumeBindingMode": "WaitForFirstConsumer", "volumeReclaimPolicy": "Retain", "volumeMode": "Filesystem", "volumeType": "gp2", "allowVolumeExpansion": true, "fsType": "ext4", "parameters": {"type": "gp2"}}, "storageClassName": "gp2", "volumeClaimTemplates": [{"volumeName": "gp2", "accessModes": ["ReadWriteOnce"], "storageClassName": "gp2", "resources": {"requests": {"storage": "10Gi"}, "limits": {"storage": "10Gi"}}, "volumeMode": "Filesystem", "volumeType": "gp2", "reclaimPolicy": "Delete", "fsType": "ext4", "parameters": {"type": "gp2"}}], "creationTimestamp": "2020-07-04T18:57:15Z", "name": "gp2", "resourceVersion": "8117", "selfLink": "/apis/storage.k8s.io/v1/storageclasses/gp2", "uid": "18b23c97-6b74-45bc-9b8e-bbf836cecad", "parameters": {"fsType": "ext4", "type": "gp2"}, "provisioner": "kubernetes.io/aws-ebs", "reclaimPolicy": "Delete"}  
Edit cancelled, no changes made.  
NAME READY UP-TO-DATE A...  
NAME DESIRED CURRENT RE...
```

```

Administrator: Command Prompt - kubectl-edit-lek94 - Notepad
* kubectl-edit-lek94 - Notepad
File Edit Format View Help
# Please edit the object below. Lines beginning with a '#' will be ignored,
# and an empty file will abort the edit. If an error occurs while saving this file
# reopened with the relevant failures.
#
# apiVersion: storage.k8s.io/v1
# kind: StorageClass
C:\Users\user\Desktop\eks cloud>kubectl edit sc lwsc1
Name: lwsc1
IsDefaultClass: No
Annotations: <none>
Provisioner: kubernetes.io/aws-ebs
Parameters: type=io1
AllowVolumeExpansion: <unset>
MountOptions: <none>
ReclaimPolicy: Delete
VolumeBindingMode: WaitForFirstConsumer
Events: <none>
C:\Users\user\Desktop\eks cloud>kubectl edit sc lwsc1
Edit cancelled, no changes made.
C:\Users\user\Desktop\eks cloud>kubectl edit sc gp2
Edit cancelled, no changes made.
C:\Users\user\Desktop\eks cloud>kubectl edit sc lwsc1
storageclass.storage.k8s.io/lwsc1 edited
C:\Users\user\Desktop\eks cloud>kubectl describe sc lwsc1
Name: lwsc1
IsDefaultClass: Yes
Annotations: kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind":"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class":"true"}, "name": "gp2"}, "parameters":{"fsType": "ext4", "type": "gp2"}, "provisioner": "kubernetes.io/aws-ebs", "volumeBindingMode": "WaitForFirstConsumer"}, storageclass.kubernetes.io/is-default-class=true
Provisioner: kubernetes.io/aws-ebs
Parameters: type=io1
AllowVolumeExpansion: <unset>
MountOptions: <none>
ReclaimPolicy: Retain
VolumeBindingMode: Immediate
Events: <none>
C:\Users\user\Desktop\eks cloud>

```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS    VOLUME   CAPACITY   ACCESS MODES   STORAGECLASS   AGE
lwpvc1    Pending   gp2       5s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc gp2
Name:      gp2
IsDefaultClass: Yes
Annotations:
kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind"
:"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class
":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kub
ernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"}
,storageclass.kubernetes.io/is-default-class=true
Provisioner:      kubernetes.io/aws-ebs
Parameters:      fsType=ext4,type=gp2
AllowVolumeExpansion: <unset>
MountOptions:    <none>
ReclaimPolicy:   Delete
VolumeBindingMode: WaitForFirstConsumer
Events:         <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl edit deploy myweb
deployment.apps/myweb edited
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS  VOLUME          CAPACITY  ACCESS MODES
STORAGECLASS AGE
lwpvc1    Bound   pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26  1Gi       RWO        gp2
7m29s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv
NAME          CAPACITY  ACCESS MODES  RECLAIM POLICY  STATUS
CLAIM  STORAGECLASS  REASON  AGE
pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26  1Gi       RWO        Delete     Bound
lwns/lwpvc1  gp2           7s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
NAME        READY  STATUS    RESTARTS  AGE
myweb-79b48fb9f5-mdrbw  0/1   Terminating   0   10m
myweb-7b7c54778f-sfc7v  1/1   Running     0   28s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER      AGE
gp2 (default)  kubernetes.io/aws-ebs  55m
```

```
C:\Users\user\Desktop\eks cloud>kubectl get all
NAME           READY   STATUS    RESTARTS   AGE
pod/myweb-7b7c54778f-sfc7v  1/1     Running   0        2m13s
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP
PORT(S)	AGE		
service/myweb	LoadBalancer	10.100.44.126	a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com
80:31480/TCP	17m		

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/myweb	1/1	1	1	20m

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/myweb-79b48fb9f5	0	0	0	20m
replicaset.apps/myweb-7b7c54778f	1	1	1	2m14s

```
C:\Users\user\Desktop\eks cloud>kubectl cp index.php
myweb-7b7c54778f-sfc7v:/var/www/html/index.php
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete pod -all
Error: unknown shorthand flag: 'a' in -all
See 'kubectl delete --help' for usage.
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete pod --all
pod "myweb-7b7c54778f-sfc7v" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl get all
NAME           READY   STATUS    RESTARTS   AGE
pod/myweb-7b7c54778f-qwmkq  1/1     Running   0        7s

NAME           TYPE     CLUSTER-IP      EXTERNAL-IP
PORT(S)        AGE
service/myweb  LoadBalancer  10.100.44.126
a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com
80:31480/TCP  18m
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/myweb	1/1	1	1	22m

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/myweb-79b48fb9f5	0	0	0	22m

```
replicaset.apps/myweb-7b7c54778f 1 1 1 3m42s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER      AGE
gp2 (default)  kubernetes.io/aws-ebs  58m
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc
Name:      gp2
IsDefaultClass: Yes
Annotations:
kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind":"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kubernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"}
,storageclass.kubernetes.io/is-default-class=true
Provisioner:      kubernetes.io/aws-ebs
Parameters:      fsType=ext4,type=gp2
AllowVolumeExpansion: <unset>
MountOptions:    <none>
ReclaimPolicy:   Delete
VolumeBindingMode: WaitForFirstConsumer
Events:          <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete deployment --all
deployment.apps "myweb" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods
NAME      READY  STATUS      RESTARTS  AGE
myweb-7b7c54778f-qwmkq  0/1  Terminating  0  2m10s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
NAME      STATUS  VOLUME      CAPACITY  ACCESS MODES  STORAGECLASS  AGE
lwpvc1  Bound  pvc-33b9a92c-c2d4-439f-901c-b61d4dc9fa26  1Gi  RWO      gp2
13m
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete pvc --all
persistentvolumeclaim "lwpvc1" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv  
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl create -f storage1.yml  
storageclass.storage.k8s.io/lwsc1 created
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc  
NAME      PROVISIONER      AGE  
gp2 (default) kubernetes.io/aws-ebs 62m  
lwsc1      kubernetes.io/aws-ebs 7s
```

```
C:\Users\user\Desktop\eks cloud>kubectl create -f pvc1.yml  
persistentvolumeclaim/lwpvc1 created
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc  
NAME    STATUS    VOLUME    CAPACITY    ACCESS MODES    STORAGECLASS    AGE  
lwpvc1  Pending           lwsc1        6s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv  
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv  
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc  
NAME    STATUS    VOLUME    CAPACITY    ACCESS MODES    STORAGECLASS    AGE  
lwpvc1  Pending           lwsc1        64s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc  
NAME      PROVISIONER      AGE  
gp2 (default) kubernetes.io/aws-ebs 65m  
lwsc1      kubernetes.io/aws-ebs 2m36s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc  
NAME      PROVISIONER      AGE  
gp2 (default) kubernetes.io/aws-ebs 65m  
lwsc1      kubernetes.io/aws-ebs 2m59s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc  
NAME    STATUS    VOLUME    CAPACITY    ACCESS MODES    STORAGECLASS    AGE  
lwpvc1  Pending           lwsc1        100s
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv  
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get all  
NAME      TYPE      CLUSTER-IP      EXTERNAL-IP  
PORT(S)    AGE  
service/myweb  LoadBalancer  10.100.44.126  
a8920b8c94bd84fd281eb45d357b4c90-242885545.ap-south-1.elb.amazonaws.com  
80:31480/TCP  27m
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pods  
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc  
NAME      PROVISIONER      AGE  
gp2 (default)  kubernetes.io/aws-ebs  67m  
lwsc1      kubernetes.io/aws-ebs  5m19s
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc gp2  
Name:      gp2  
IsDefaultClass: Yes  
Annotations:  
kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind":  
:"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class":  
"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kub  
ernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"}  
,storageclass.kubernetes.io/is-default-class=true  
Provisioner:      kubernetes.io/aws-ebs  
Parameters:      fsType=ext4,type=gp2  
AllowVolumeExpansion: <unset>  
MountOptions:      <none>  
ReclaimPolicy:    Delete  
VolumeBindingMode: WaitForFirstConsumer  
Events:          <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc lwsc1  
Name:      lwsc1  
IsDefaultClass: No  
Annotations: <none>  
Provisioner:      kubernetes.io/aws-ebs  
Parameters:      type=io1  
AllowVolumeExpansion: <unset>
```

```
MountOptions:      <none>
ReclaimPolicy:    Retain
VolumeBindingMode: Immediate
Events:          <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl edit sc gp2
Edit cancelled, no changes made.
```

```
C:\Users\user\Desktop\eks cloud>
C:\Users\user\Desktop\eks cloud>
C:\Users\user\Desktop\eks cloud>kubectl edit sc gp2
storageclass.storage.k8s.io/gp2 edited
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc gp2
Name:      gp2
IsDefaultClass: No
Annotations:
kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind"
:"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class
":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kub
ernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"}
,storageclass.kubernetes.io/is-default-class=false
Provisioner:   kubernetes.io/aws-ebs
Parameters:   fsType=ext4,type=gp2
AllowVolumeExpansion: <unset>
MountOptions:  <none>
ReclaimPolicy: Delete
VolumeBindingMode: WaitForFirstConsumer
Events:        <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc lwcsc1
Name:      lwcsc1
IsDefaultClass: No
Annotations: <none>
Provisioner:   kubernetes.io/aws-ebs
Parameters:   type=io1
AllowVolumeExpansion: <unset>
MountOptions:  <none>
ReclaimPolicy: Retain
VolumeBindingMode: Immediate
Events:        <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl edit sc lWSC1
Edit cancelled, no changes made.
```

```
C:\Users\user\Desktop\eks cloud>kubectl edit sc gp2
Edit cancelled, no changes made.
```

```
C:\Users\user\Desktop\eks cloud>kubectl edit sc lWSC1
storageclass.storage.k8s.io/lWSC1 edited
```

```
C:\Users\user\Desktop\eks cloud>kubectl describe sc lWSC1
Name:      lWSC1
IsDefaultClass: Yes
Annotations:
kubectl.kubernetes.io/last-applied-configuration={"apiVersion":"storage.k8s.io/v1","kind"
:"StorageClass","metadata":{"annotations":{"storageclass.kubernetes.io/is-default-class
":"true"},"name":"gp2"},"parameters":{"fsType":"ext4","type":"gp2"},"provisioner":"kub
ernetes.io/aws-ebs","volumeBindingMode":"WaitForFirstConsumer"}
,storageclass.kubernetes.io/is-default-class=true
Provisioner:    kubernetes.io/aws-ebs
Parameters:    type=io1
AllowVolumeExpansion: <unset>
MountOptions:   <none>
ReclaimPolicy:  Retain
VolumeBindingMode: Immediate
Events:        <none>
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete pvc --all
persistentvolumeclaim "lpvc1" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pvc
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get pv
No resources found in lwns namespace.
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER      AGE
gp2      kubernetes.io/aws-ebs  73m
lWSC1 (default)  kubernetes.io/aws-ebs  11m
```

```
C:\Users\user\Desktop\eks cloud>kubectl delete all --all
service "myweb" deleted
```

```
C:\Users\user\Desktop\eks cloud>kubectl get sc
NAME      PROVISIONER      AGE
gp2      kubernetes.io/aws-ebs 74m
lwscl (default)  kubernetes.io/aws-ebs 11m
```

```
C:\Users\user\Desktop\eks cloud>eksctl delete cluster -f cluster1.yml
```