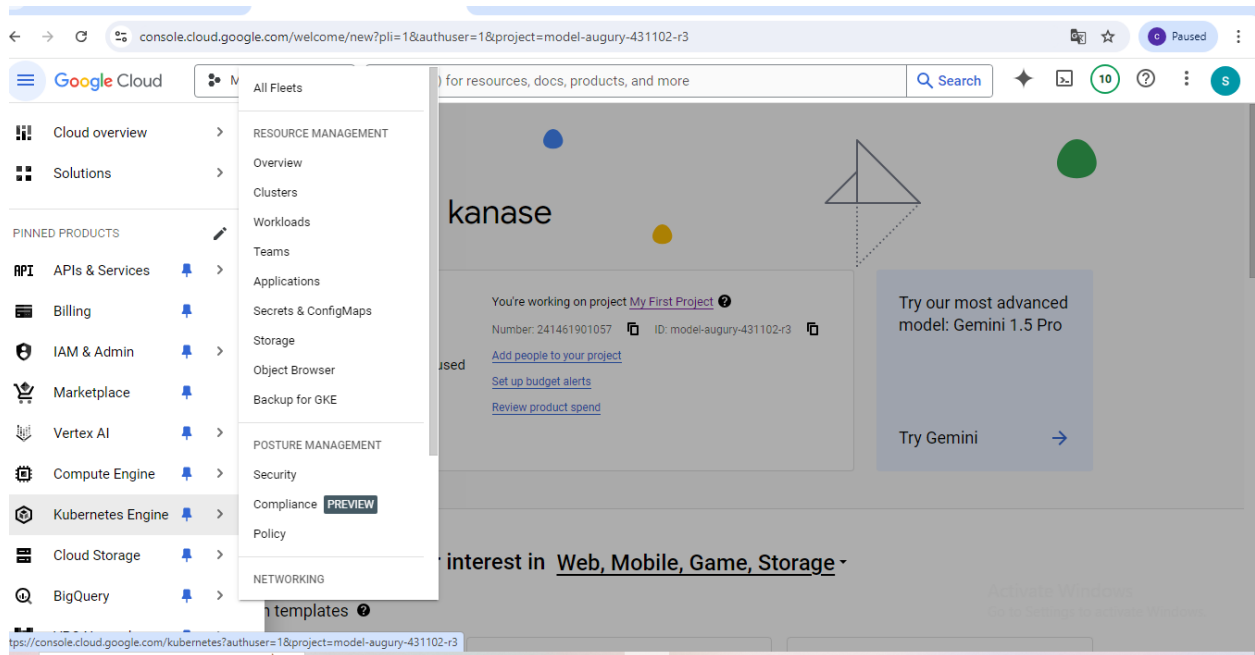


Kubernetes cluster creation

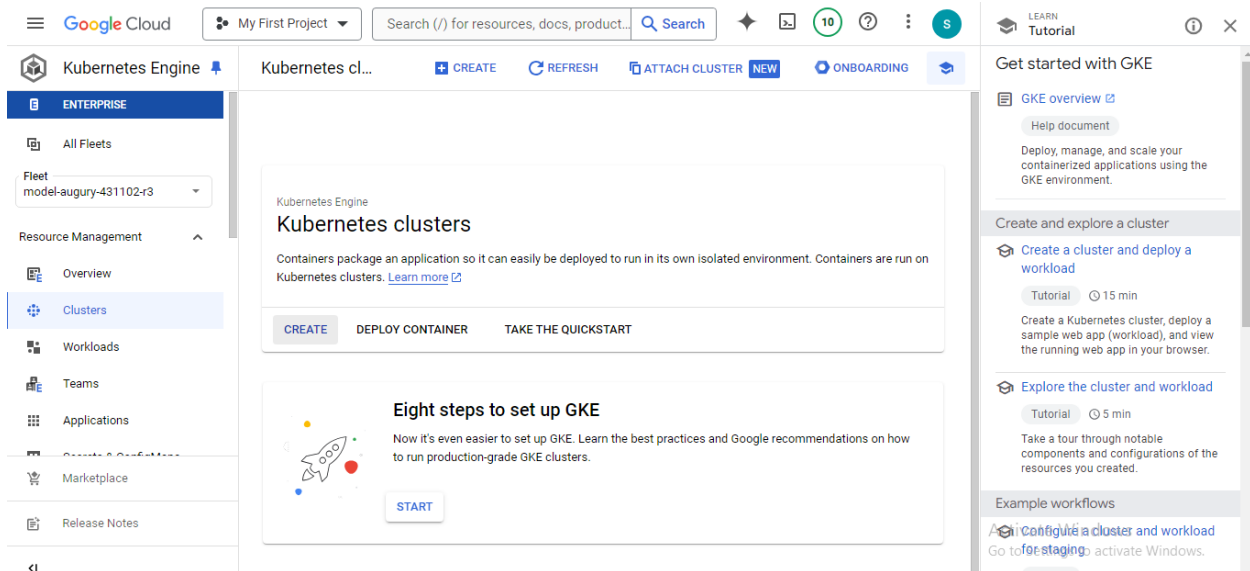
Step 1-Login into GCP Account

- Go to Kubernetes Engine

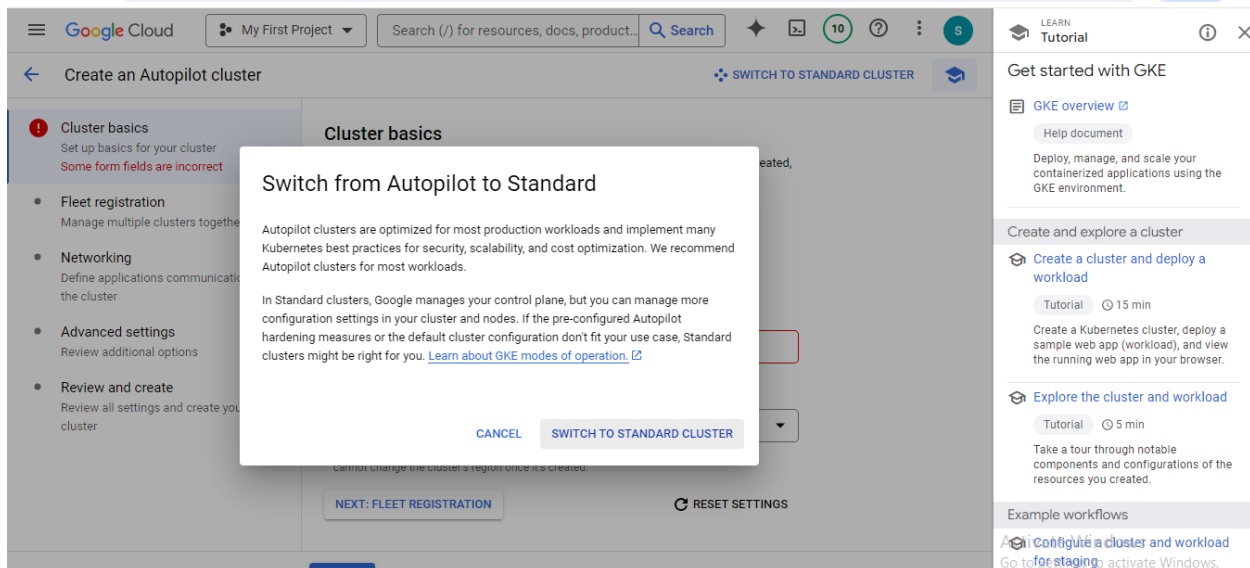


Step 2- Create Kubernetes Cluster

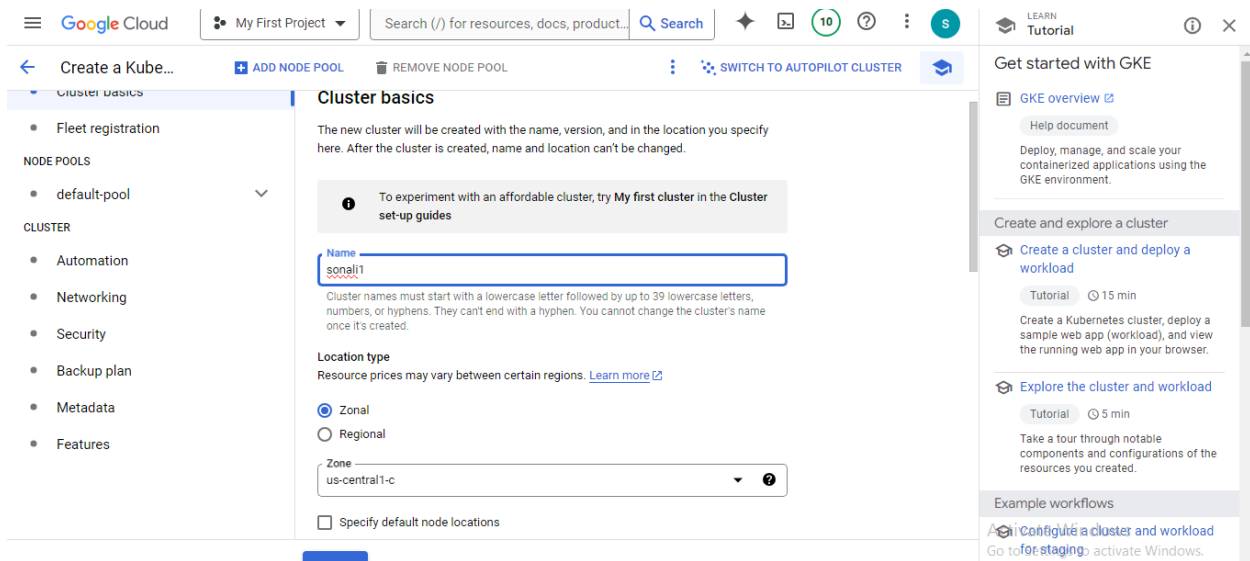
- Click on "cluster" and then click on create



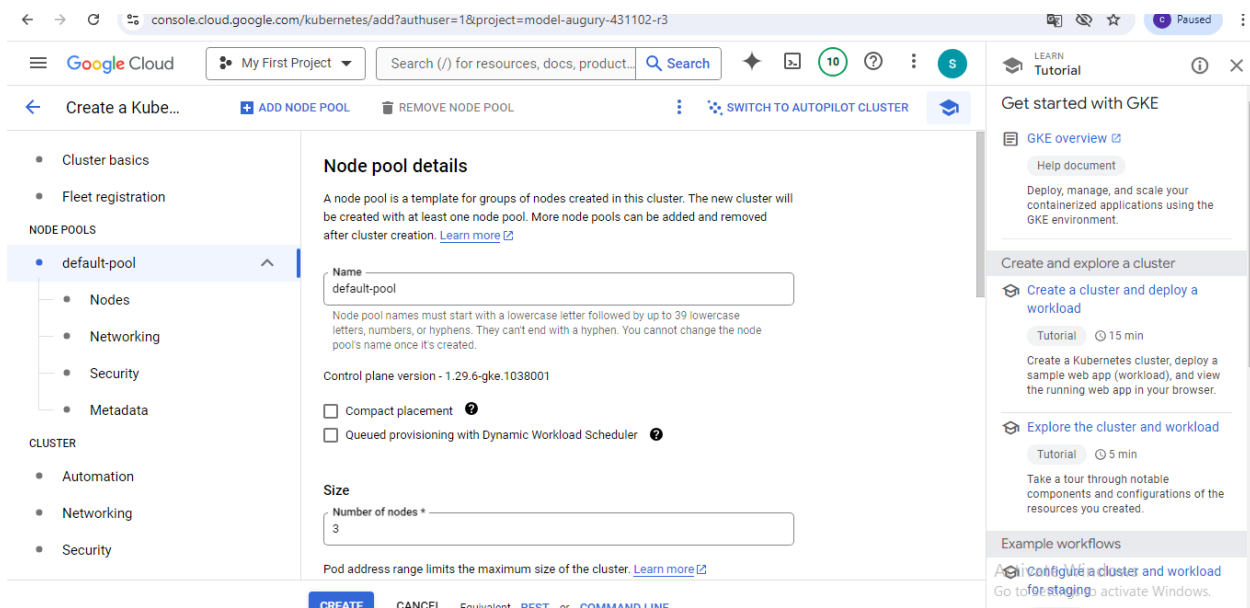
- Switch to Autopilot mode to Standard Mode



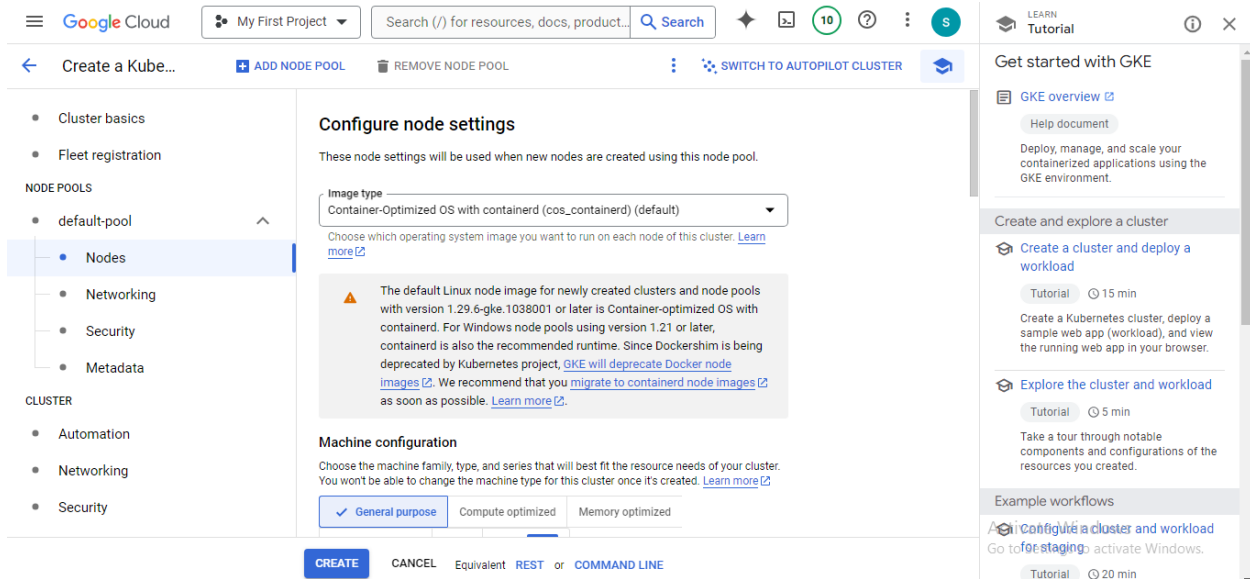
- Give name to your Cluster



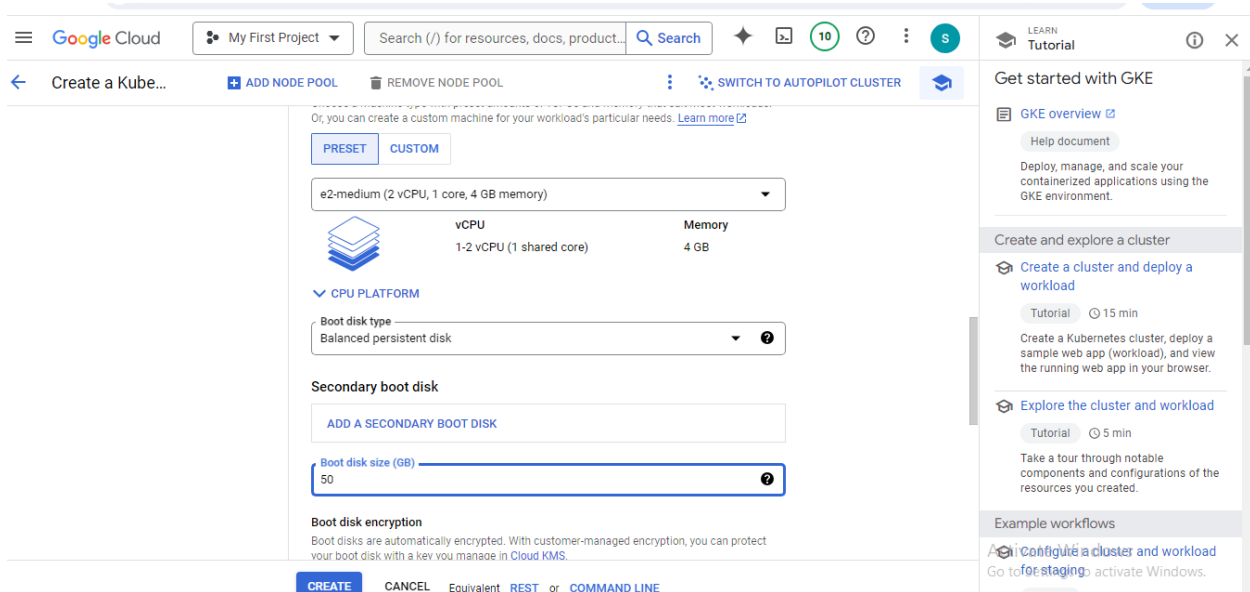
- Click on default pool and do the configuration



- Do node level configuration
- Maximum number of node



- Select 2 vcpu , 1 core and 4GB Memory
- 50 GB Storage



- Click on create and create a cluster.

← Create a Kube... [+ ADD NODE POOL](#) [REMOVE NODE POOL](#) [SWITCH TO AUTOPILOT CLUSTER](#)

- Cluster basics
- Fleet registration

NODE POOLS

- default-pool
 - Nodes
 - Networking
 - Security
 - Metadata

CLUSTER

- Automation
- Networking
- Security

Cluster basics

The new cluster will be created with the name, version, and in the location you specify here. After the cluster is created, name and location can't be changed.

To experiment with an affordable cluster, try [My first cluster](#) in the [Cluster set-up guides](#)

Name
sonali1

Cluster names must start with a lowercase letter followed by up to 39 lowercase letters, numbers, or hyphens. They can't end with a hyphen. You cannot change the cluster's name once it's created.

Location type
Resource prices may vary between certain regions. [Learn more](#)

☒ Zonal
☐ Regional

Zone
us-central1-c

[CREATE](#) [CANCEL](#) [Equivalent REST](#) or [COMMAND LINE](#)

Get started with GKE

[GKE overview](#)

[Help document](#)

Deploy, manage, and scale your containerized applications using GKE environment.

Create and explore a cluster

[Create a cluster and deploy a workload](#)

Tutorial 15 min

Create a Kubernetes cluster, deploy a sample web app (workload), and the running web app in your browser.

[Explore the cluster and workload](#)

Tutorial 5 min

Take a tour through notable components and configurations of the resources you created.

Example workflows

[Configure a cluster and workload for staging](#)

Go to [for staging](#) activate Windows.

Tutorial 20 min

- Cluster will be created

← → ↺ console.cloud.google.com/kubernetes/list/overview?authuser=1&project=model-augury-431102-r3

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Kubernetes Engine [CREATE](#) [DEPLOY](#) [ONBOARDING](#) [OPERATIONS](#)

ENTERPRISE

All Fleets

Fleet model-augury-431102-r3

Resource Management

Overview

Clusters

Workloads

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Applications

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Kubernetes cl...

OVERVIEW UTILIZATION OBSERVABILITY COST OPTIMIZATION

Filter Enter property name or value

Status	Name	Location	Fleet	Number of nodes	Total vCPUs
<input checked="" type="checkbox"/>	sonali1	us-central1-c	REGISTER	3	6

Get started with GKE

[GKE overview](#)

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Example workflows

[Configure a cluster and workload for staging](#)

Go to [for staging](#) activate Windows.

Tutorial 20 min

- 3 VM instance has been created

console.cloud.google.com/compute/instances?authuser=1&project=model-augury-431102-r3

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Compute Engine VM instances CREATE INSTANCE IMPORT VM REFRESH LEARN

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Storage Marketplace Release Notes

INSTANCES OBSERVABILITY INSTANCE SCHEDULES

VM instances

Filter Enter property name or value

Status	Name	Zone	Recommendations	In use by	Connect
Running	gke-sonali1-default-pool-a134e7b2-dfm1	us-central1-c		gke-	SSH
Running	gke-sonali1-default-pool-a134e7b2-g0r8	us-central1-c		gke-	SSH
Running	gke-sonali1-default-pool-a134e7b2-xsm1	us-central1-c		gke-	SSH

Related actions

- Explore Backup and DR (NEW) Back up your VMs and set up disaster recovery
- View billing report View and manage your Compute Engine billing
- Monitor VMs View outlier VMs across metrics like CPU and network
- Explore VM logs View, search, analyze, and download VM instance logs

Get started with Compute Engine

Deploy a website or application, back up and restore VMs and disks, configure secure access, and design for scalability

Create a website or application

- Create a "hello world" website on IIS Tutorial 25 min Create an IIS web server VM using Compute Engine.
- Create a "hello world" website on Apache Tutorial 10 min Create an Apache web server on a Linux VM.
- Transfer files to a Windows VM Tutorial 10 min Upload and download files from the Cloud Storage bucket to the Windows VM.
- Transfer files to a Linux VM

- Connect to your cluster

console.cloud.google.com/kubernetes/list/overview?authuser=1&project=model-augury-431102-r3

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Kubernetes Engine Kubernetes cl... CREATE DEPLOY ONBOARDING OPERATIONS LEARN

ENTERPRISE

All Fleets Fleet model-augury-431102-r3 Resource Management Overview Clusters Workloads Teams Applications Marketplace Release Notes

OVERVIEW UTILIZATION OBSERVABILITY COST OPTIMIZATION

Filter Enter property name or value

Name	Number of nodes	Total vCPUs	Total memory	Notifications	Labels
model-augury-431102-r3	3	6	12 GB		

Connect

Get started with GKE

Deploy, manage, and scale your containerized applications using the GKE environment.

Create and explore a cluster

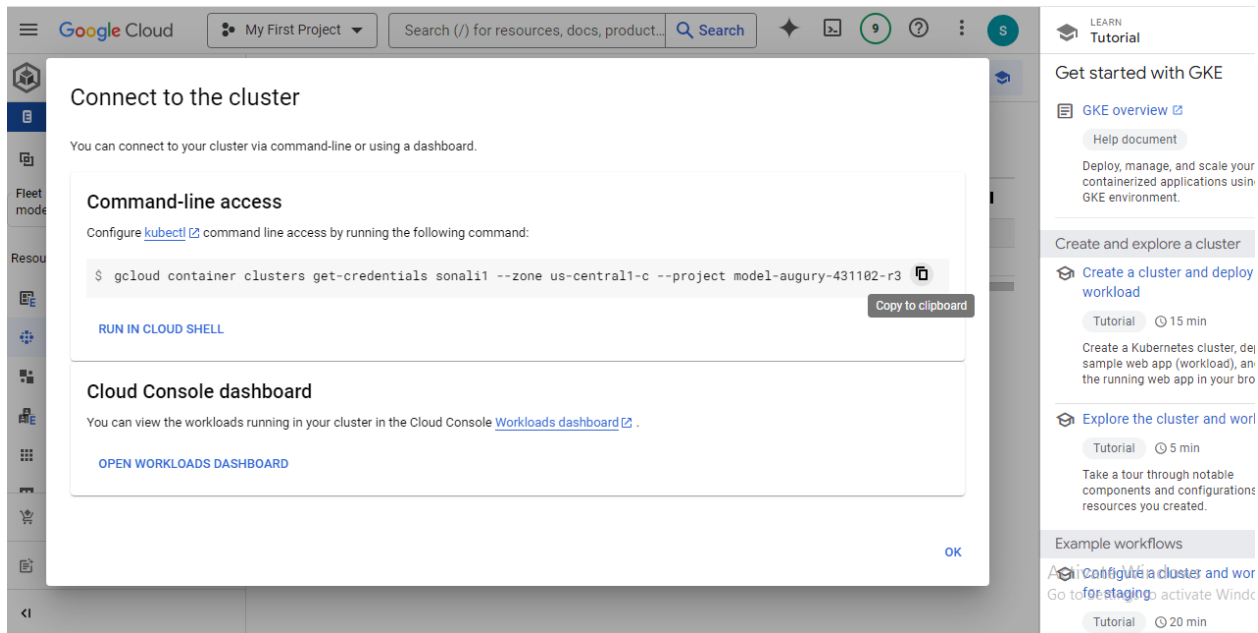
- Create a cluster and deploy a workload Tutorial 15 min Create a Kubernetes cluster, deploy a sample web app (workload), and view the running web app in your browser.
- Explore the cluster and workload Tutorial 5 min Take a tour through notable components and configurations of the resources you created.

Example workflows

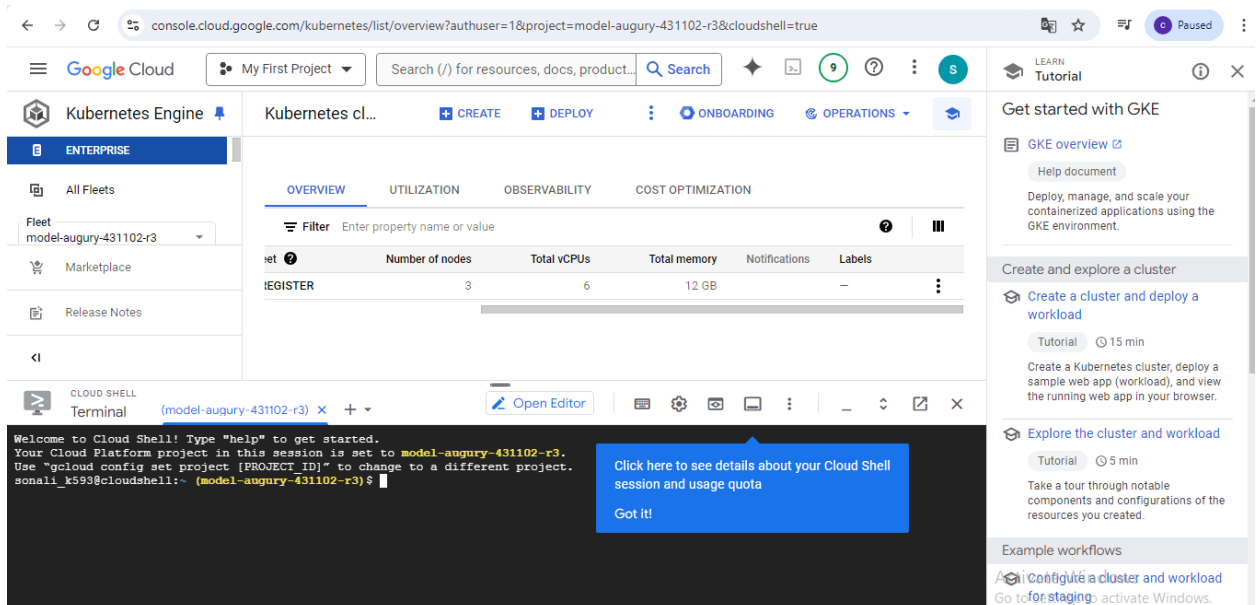
- Configure a cluster and workload

- open the Command Line Terminal.
- Copy that command and paste it on terminal.

- Do the authentication



- Before Authentication



- Authorize the shell

The screenshot shows the Google Cloud console interface for a Kubernetes Engine cluster. The 'Kubernetes Engine' page is active, displaying the 'OVERVIEW' tab. A table lists the cluster details:

Cluster	Number of nodes	Total vCPUs	Total memory	Notifications	Labels
model-augury-431102-r3	3	6	12 GB	-	-

An 'Authorize Cloud Shell' dialog box is open, stating: 'Cloud Shell needs permission to use your credentials for the gcloud CLI command. Click Authorize to grant permission to this and future calls.' The dialog has 'REJECT' and 'AUTHORIZE' buttons.

On the right, the 'Get started with GKE' section includes links for 'GKE overview', 'Help document', and 'Create and explore a cluster'. The 'Create and explore a cluster' section has a 'Tutorial' link (15 min) and a description: 'Create a Kubernetes cluster, deploy a sample web app (workload), and the running web app in your browser.' The 'Explore the cluster and workload' section has a 'Tutorial' link (5 min) and a description: 'Take a tour through notable components and configurations of resources you created.' The 'Example workflows' section has a 'Tutorial' link (20 min) and a description: 'Go to the staging window to activate the window.'

- Facing these issue
- Troubleshooted this issue by reconnecting the cluster

The screenshot shows the Google Cloud console interface for a Kubernetes Engine cluster. The 'Kubernetes Engine' page is active, displaying the 'OVERVIEW' tab. A table lists the cluster details:

Cluster	Number of nodes	Total vCPUs	Total memory	Notifications	Labels
model-augury-431102-r3	1	2	4 GB	-	-

A terminal window is open at the bottom, showing the following output:

```
sonali_k593@cloudshell:~ (model-augury-431102-r3) $ ^C
sonali_k593@cloudshell:~ (model-augury-431102-r3) $ kubectl get nodes
E0731 08:21:04.101845 906 memcache.go:265] couldn't get current server API group list: Get "http://localhost:8080/api?timeout=32s": dial tcp 127.0.0.1:8080: connect: connection refused
E0731 08:21:04.102529 906 memcache.go:265] couldn't get current server API group list: Get "http://localhost:8080/api?timeout=32s": dial tcp 127.0.0.1:8080: connect: connection refused
E0731 08:21:04.104164 906 memcache.go:265] couldn't get current server API group list: Get "http://localhost:8080/api?timeout=32s": dial tcp 127.0.0.1:8080: connect: connection refused
E0731 08:21:04.104726 906 memcache.go:265] couldn't get current server API group list: Get "http://localhost:8080/api?timeout=32s": dial tcp 127.0.0.1:8080: connect: connection refused
E0731 08:21:04.106311 906 memcache.go:265] couldn't get current server API group list: Get "http://localhost:8080/api?timeout=32s": dial tcp 127.0.0.1:8080: connect: connection refused
The connection to the server localhost:8080 was refused - did you specify the right host or port?
sonali_k593@cloudshell:~ (model-augury-431102-r3) $
```


- Cluster is connected and terminal is open we write our command over here.

The screenshot shows the Google Cloud console interface. The top navigation bar includes the Google Cloud logo, a project selector set to 'My First Project', a search bar, and various utility icons. The left sidebar contains navigation links for 'Kubernetes Engine', 'ENTERPRISE', 'All Fleets', 'Fleet' (selected, showing 'model-augury-431102-r3'), 'Marketplace', and 'Release Notes'. The main content area is titled 'Kubernetes cl...' and features tabs for 'OVERVIEW', 'UTILIZATION', 'OBSERVABILITY', and 'COST OPTIMIZATION'. The 'OVERVIEW' tab is active, displaying a table with columns: 'Name', 'Number of nodes', 'Total vCPUs', 'Total memory', 'Notifications', and 'Labels'. The table contains one entry: 'REGISTER' with 3 nodes, 6 vCPUs, and 12 GB of memory. Below the table is a 'Filter' input field. At the bottom of the console, a 'CLOUD SHELL' terminal window is open, showing a series of commands and their outputs. The commands include 'gcloud config set project', 'gcloud container clusters get-credentials', and 'kubectl get nodes'. The output of 'kubectl get nodes' shows three nodes in a 'Ready' state. On the right side of the console, a 'Get started with GKE' sidebar contains links to 'GKE overview', 'Help document', and 'Create and explore a cluster'. The 'Create and explore a cluster' section includes a 'Create a cluster and deploy a workload' tutorial (15 min) and an 'Explore the cluster and workload' tutorial (5 min). The 'Explore the cluster and workload' section includes an 'Example workflows' section with a 'Configure a cluster and workload' tutorial (20 min).

Google Cloud | My First Project | Search (/) for resources, docs, product... | Search | 10 | ? | S

Kubernetes Engine | CREATE | DEPLOY | ONBOARDING | OPERATIONS

ENTERPRISE

All Fleets

Fleet: model-augury-431102-r3

Marketplace

Release Notes

OVERVIEW | UTILIZATION | OBSERVABILITY | COST OPTIMIZATION

Filter: Enter property name or value

Name	Number of nodes	Total vCPUs	Total memory	Notifications	Labels
REGISTER	3	6	12 GB		

CLOUD SHELL

Terminal (model-augury-431102-r3) | Open Editor

```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to model-augury-431102-r3.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
sonali_k593@cloudshell:~ (model-augury-431102-r3) $ gcloud container clusters get-credentials sonali1 --zone us-central1-c --project m
odel-augury-431102-r3
Fetching cluster endpoint and auth data.
kubeconfig entry generated for sonali1.
sonali_k593@cloudshell:~ (model-augury-431102-r3) $ kubectl get nodes
NAME                                STATUS    ROLES    AGE   VERSION
gke-sonali1-default-pool-a09361ee-802s Ready    <none>   8m19s v1.29.6-gke.1038001
gke-sonali1-default-pool-a09361ee-ngfp Ready    <none>   8m18s v1.29.6-gke.1038001
gke-sonali1-default-pool-a09361ee-vwvc Ready    <none>   8m17s v1.29.6-gke.1038001
sonali_k593@cloudshell:~ (model-augury-431102-r3) $
```

Get started with GKE

GKE overview | Help document

Deploy, manage, and scale your containerized applications using the GKE environment.

Create and explore a cluster

Create a cluster and deploy a workload | Tutorial | 15 min

Create a Kubernetes cluster, deploy a sample web app (workload), and view the running web app in your browser.

Explore the cluster and workload | Tutorial | 5 min

Take a tour through notable components and configurations of the resources you created.

Example workflows

Configure a cluster and workload | Tutorial | 20 min

Go to for staging activate Windows.

2:10 PM