GCP Architect Training

support@intellipaat.com - +91-7022374614 - US: 1-800-216-8930 (Toll Free)

GCP-Module-2-Assignment-1-Deployment on GCP COMPLETED by Nagesha KS

Please check the following screenshots for each question.

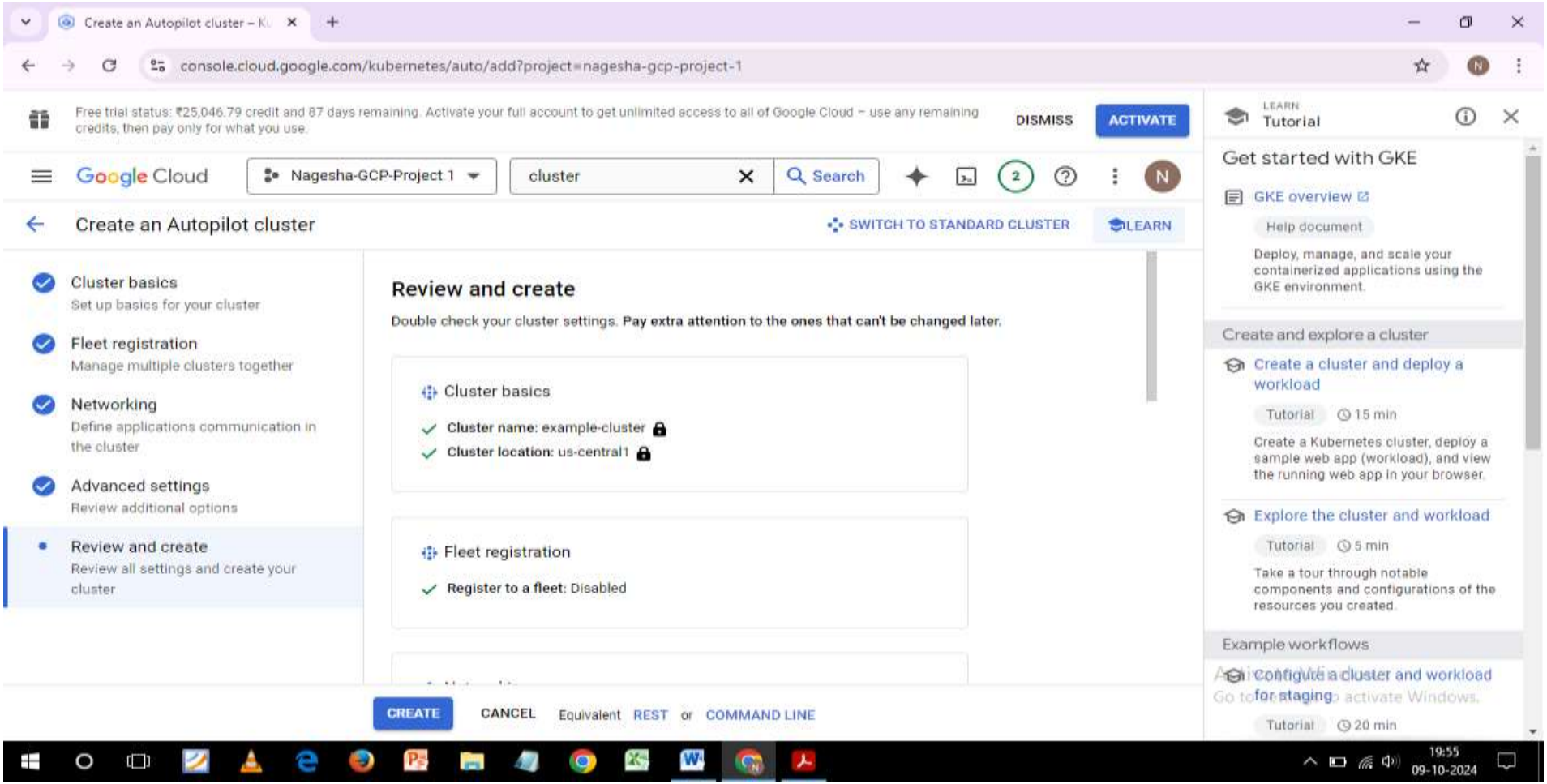
Tasks To Be Performed:

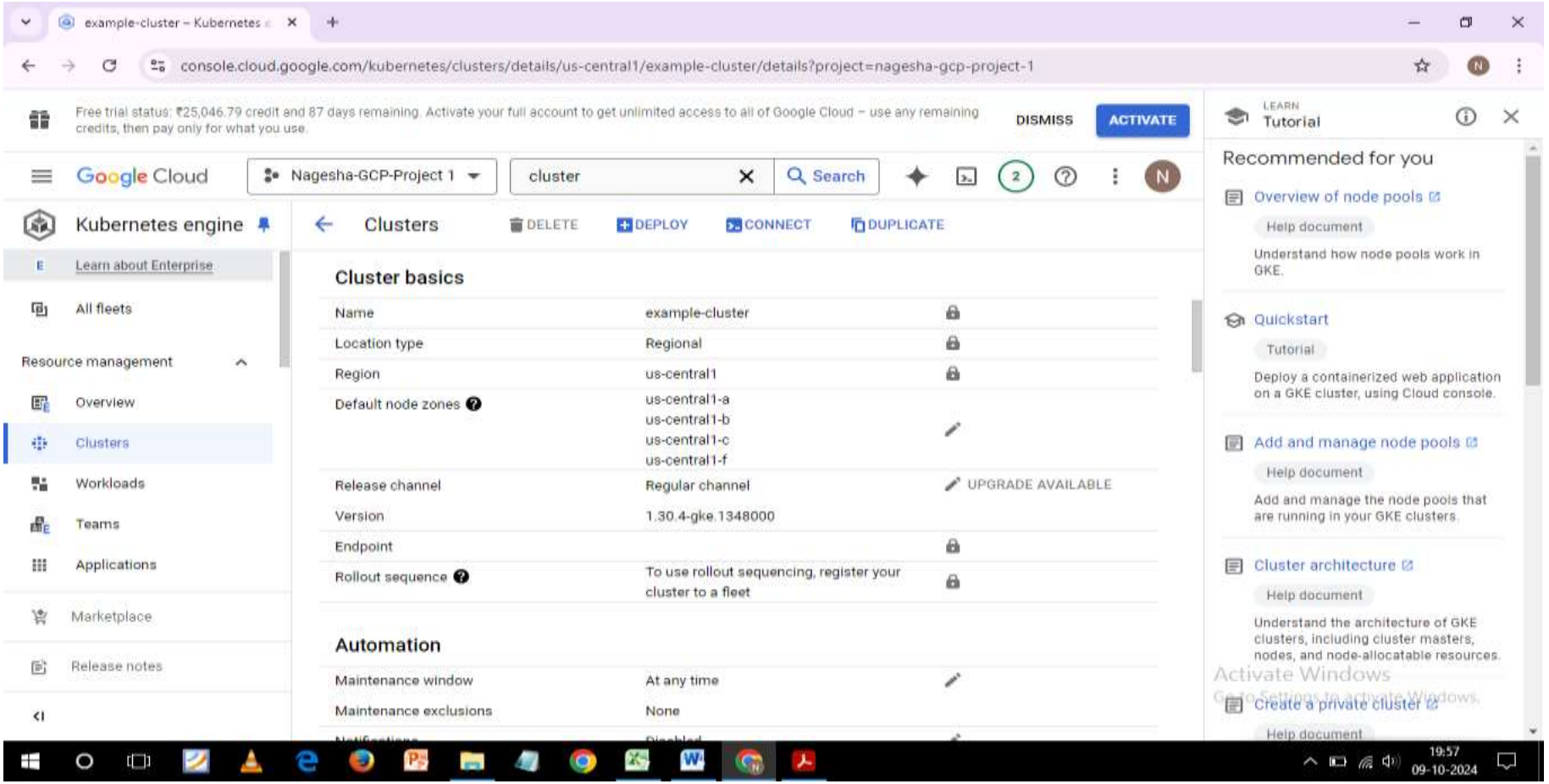
Do the following tasks in Kubernetes:

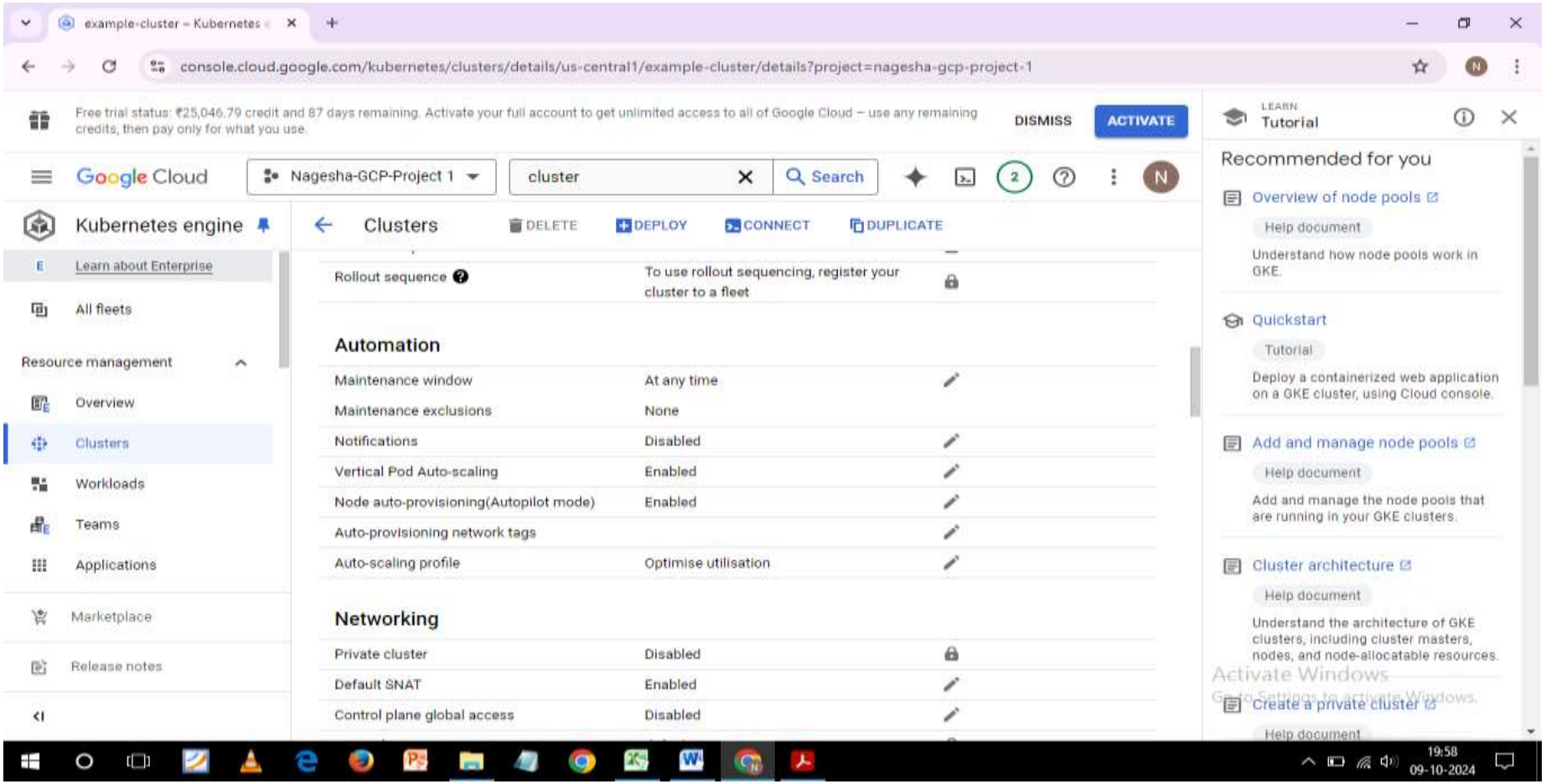
1. Create a GKE Cluster.
2. Deploy Nginx container on GKE and expose it to the internet.

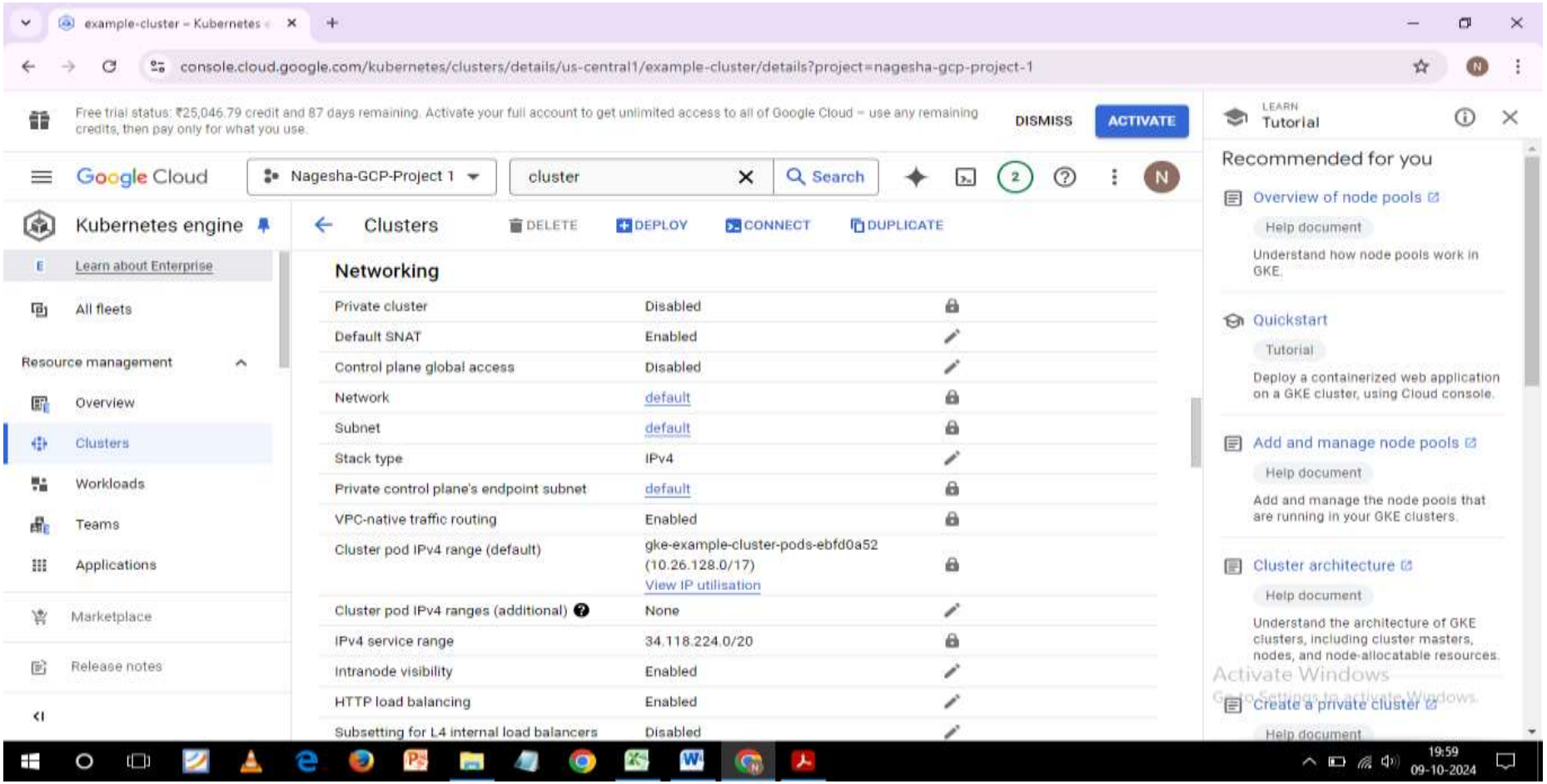
Do the following tasks using App Engine:

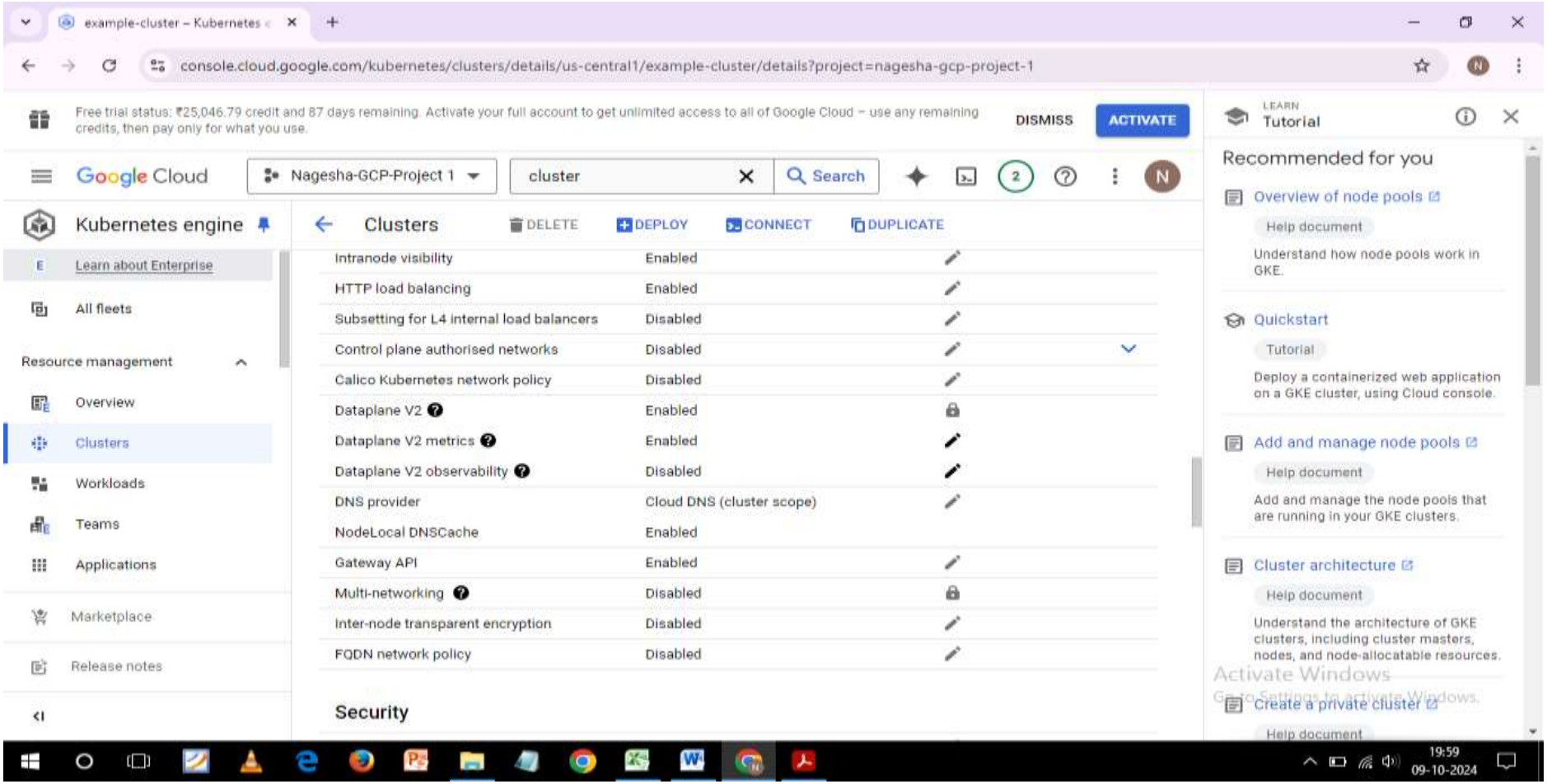
1. Deploy a nodejs application on App Engine standard using gcloud (use default application mentioned in the gcp tutorial).
2. Deploy the above version as ver-1.
3. Change the content of html to “Hello world from Intellipaat”.
4. Deploy the above as ver-2.
5. Browse both ver-1 and ver-2 using the URL.
6. Finally deploy a test instance, and load test on your instance with 5000 requests (do this using apache-utils).
7. Take a screenshot of the scaling.

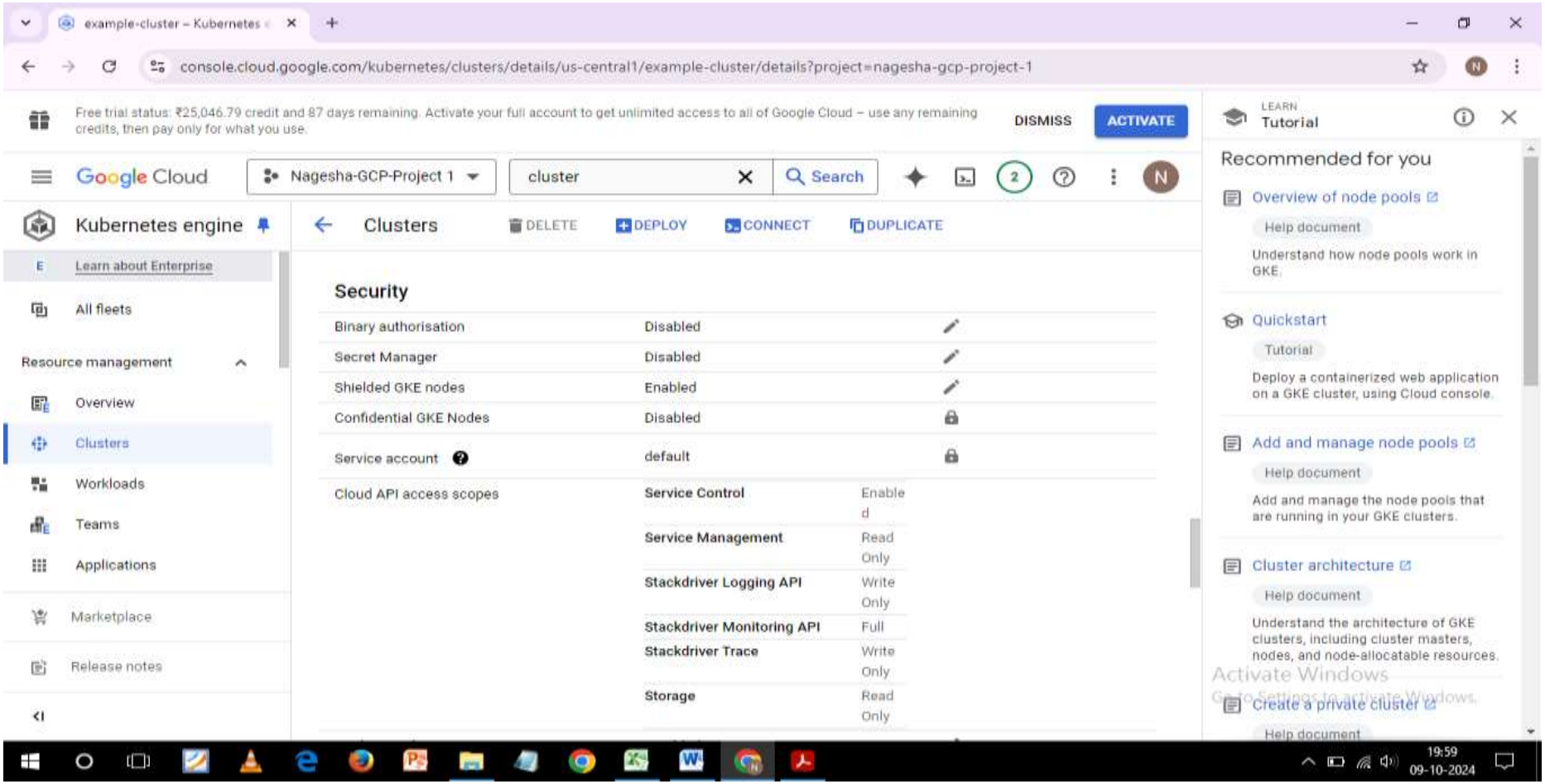

Create an Autopilot cluster – Ku
console.cloud.google.com/kubernetes/auto/add?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Create an Autopilot cluster
SWITCH TO STANDARD CLUSTER
LEARN
Cluster basics
Set up basics for your cluster
Fleet registration
Manage multiple clusters together
Networking
Define applications communication in the cluster
Advanced settings
Review additional options
Review and create
Review all settings and create your cluster
Review and create
Double check your cluster settings. Pay extra attention to the ones that can't be changed later.
Cluster basics
Cluster name: example-cluster
Cluster location: us-central1
Fleet registration
Register to a fleet: Disabled
CREATE
CANCEL
Equivalent REST or COMMAND LINE
LEARN
Tutorial
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 for staging
Tutorial
20 min
19:55
09-10-2024

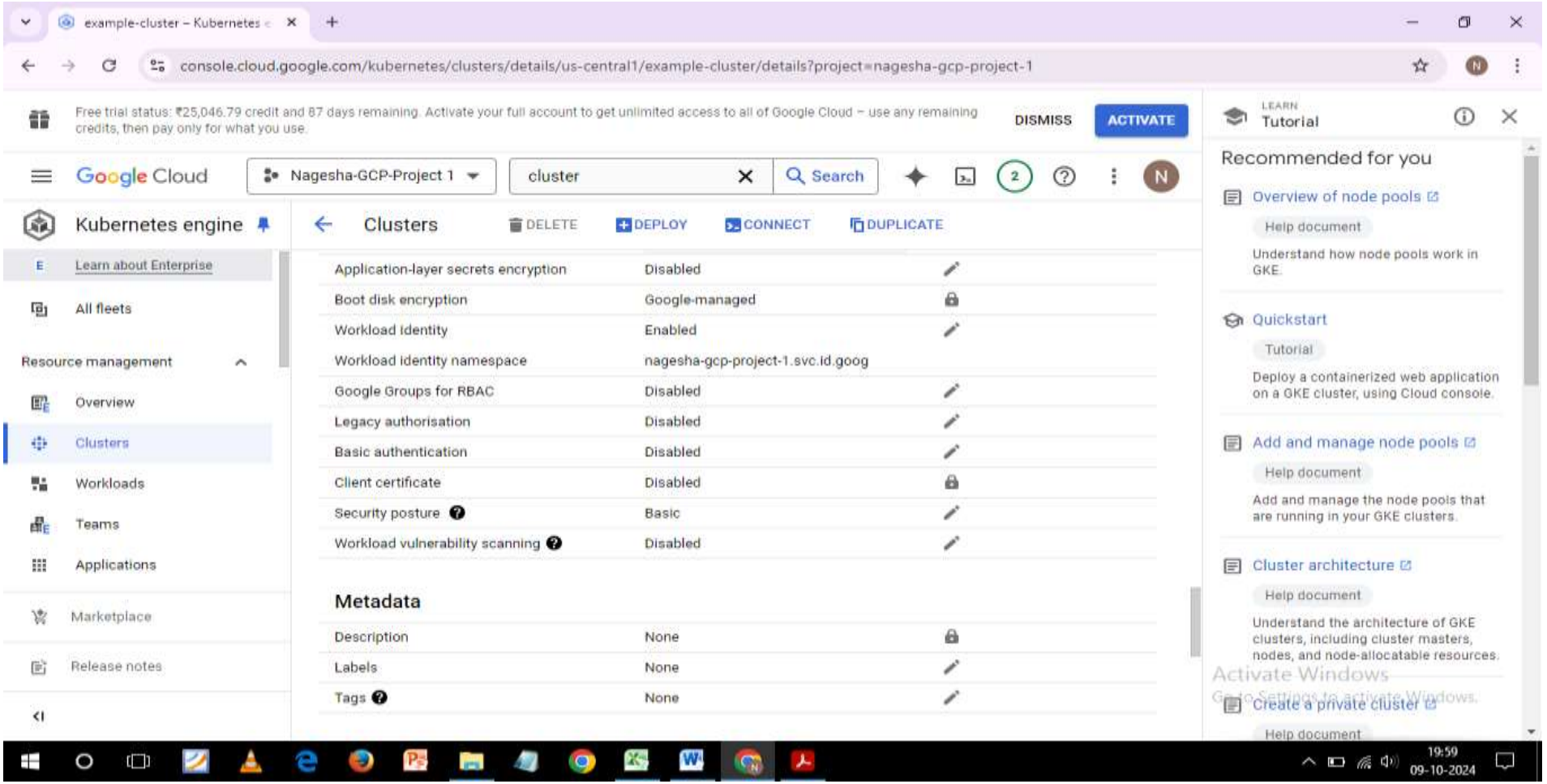

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
Cluster basics
Name
example-cluster
Location type
Regional
Region
us-central1
Default node zones
us-central1-a
us-central1-b
us-central1-c
us-central1-f
Release channel
Regular channel
UPGRADE AVAILABLE
Version
1.30.4-gke.1348000
Endpoint
Rollout sequence
To use rollout sequencing, register your cluster to a fleet
Automation
Maintenance window
At any time
Maintenance exclusions
None
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Activate Windows
Go to Settings to activate Windows.
Create a private cluster
Help document
19:57
09-10-2024

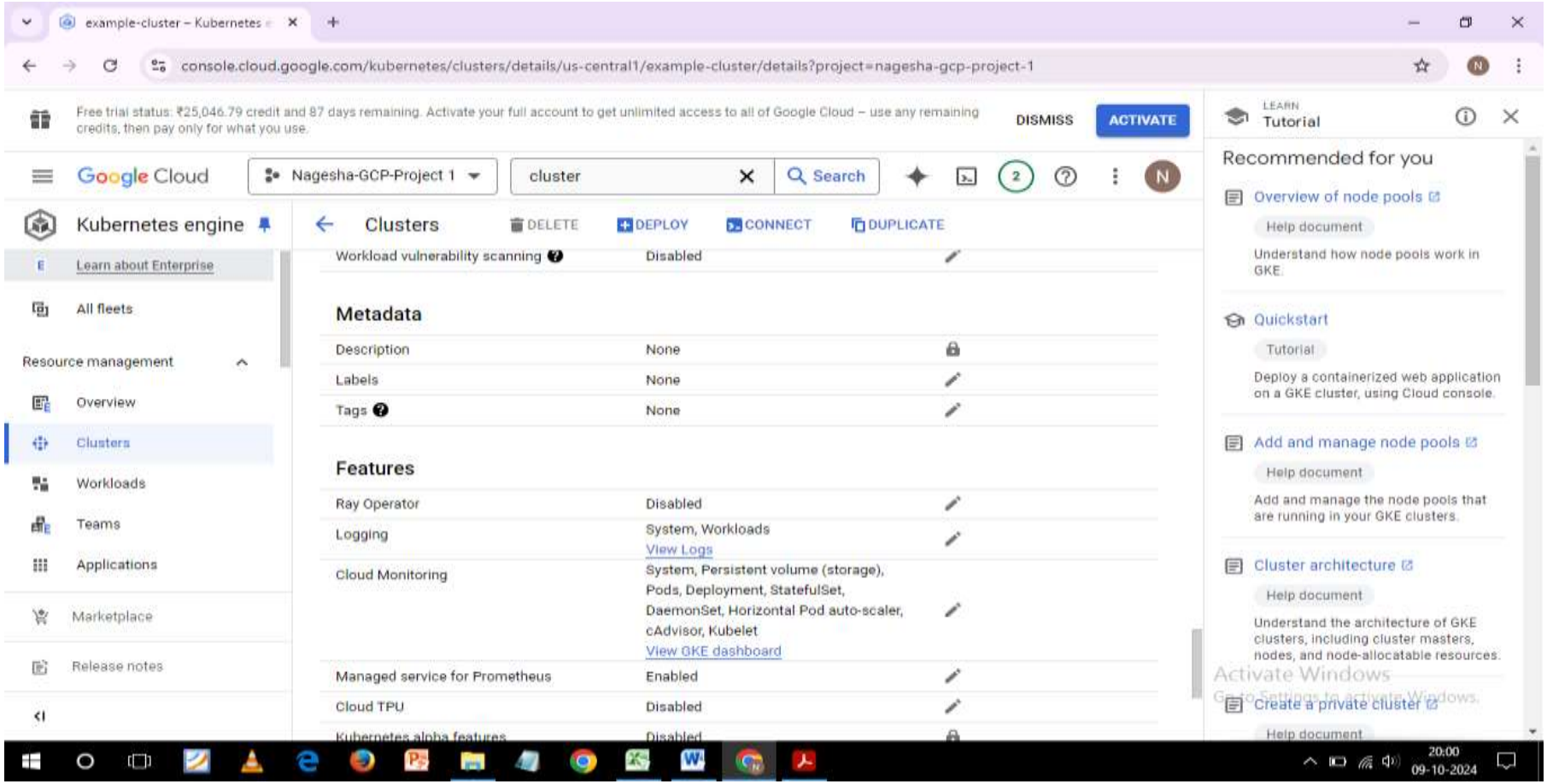

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
Rollout sequence
To use rollout sequencing, register your cluster to a fleet
Automation
Maintenance window
At any time
Maintenance exclusions
None
Notifications
Disabled
Vertical Pod Auto-scaling
Enabled
Node auto-provisioning(Autopilot mode)
Enabled
Auto-provisioning network tags
Auto-scaling profile
Optimise utilisation
Networking
Private cluster
Disabled
Default SNAT
Enabled
Control plane global access
Disabled
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Activate Windows
Go to Settings to activate Windows.
Create a private cluster
Help document
19:58
09-10-2024

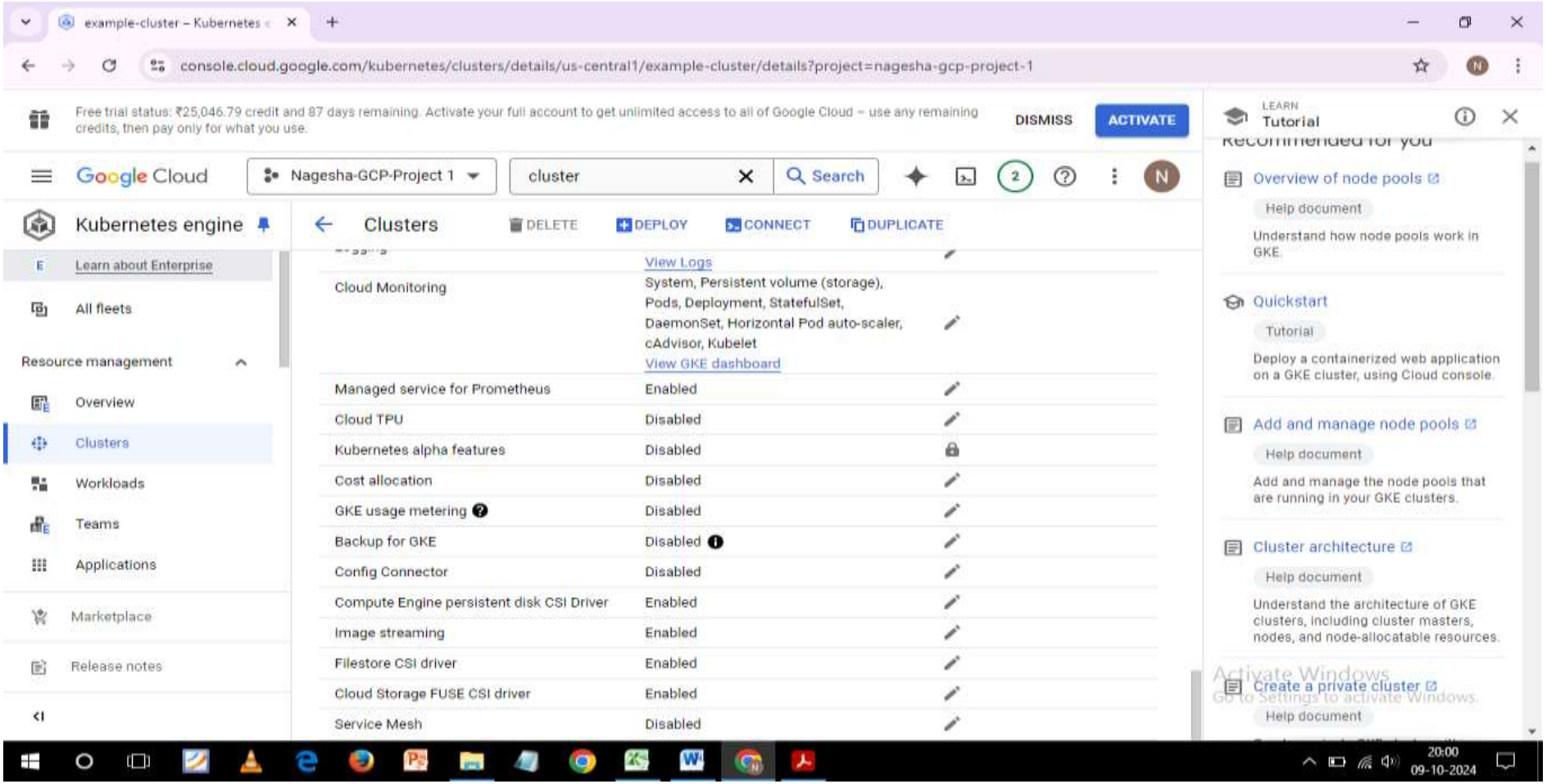

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
Networking
Private cluster
Disabled
Default SNAT
Enabled
Control plane global access
Disabled
Network
default
Subnet
default
Stack type
IPv4
Private control plane's endpoint subnet
default
VPC-native traffic routing
Enabled
Cluster pod IPv4 range (default)
gke-example-cluster-pods-ebfd0a52
(10.26.128.0/17)
View IP utilisation
Cluster pod IPv4 ranges (additional)
None
IPv4 service range
34.118.224.0/20
Intranode visibility
Enabled
HTTP load balancing
Enabled
Subsetting for L4 internal load balancers
Disabled
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Create a private cluster
Help document
Activate Windows
Go to Settings to activate Windows.
19:59
09-10-2024

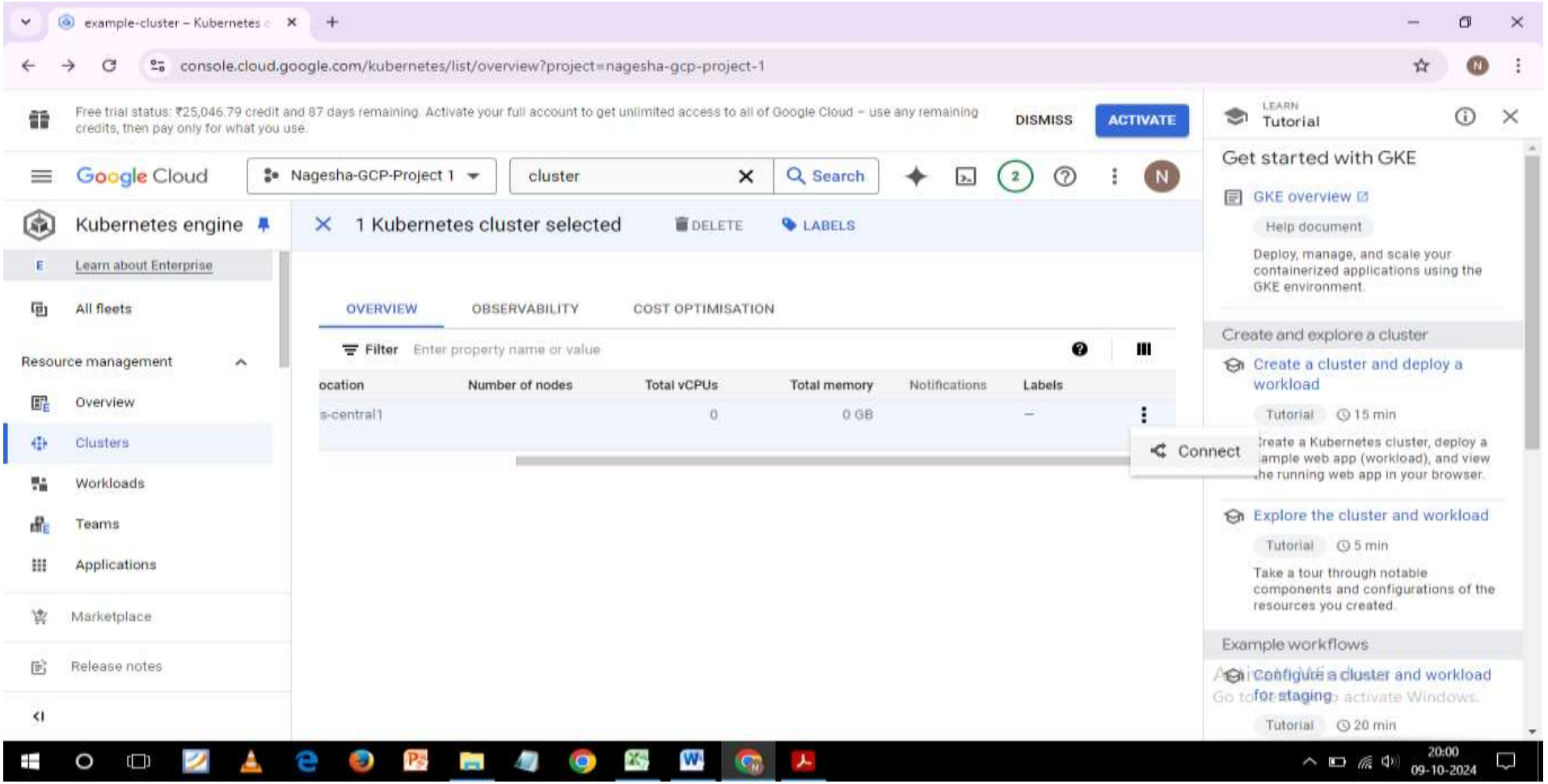

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
Intranode visibility Enabled
HTTP load balancing Enabled
Subsetting for L4 internal load balancers Disabled
Control plane authorised networks Disabled
Calico Kubernetes network policy Disabled
Dataplane V2 Enabled
Dataplane V2 metrics Enabled
Dataplane V2 observability Disabled
DNS provider Cloud DNS (cluster scope)
NodeLocal DNSCache Enabled
Gateway API Enabled
Multi-networking Disabled
Inter-node transparent encryption Disabled
FQDN network policy Disabled
Security
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Create a private cluster
Help document
Activate Windows
Go to Settings to activate Windows.
19:59
09-10-2024

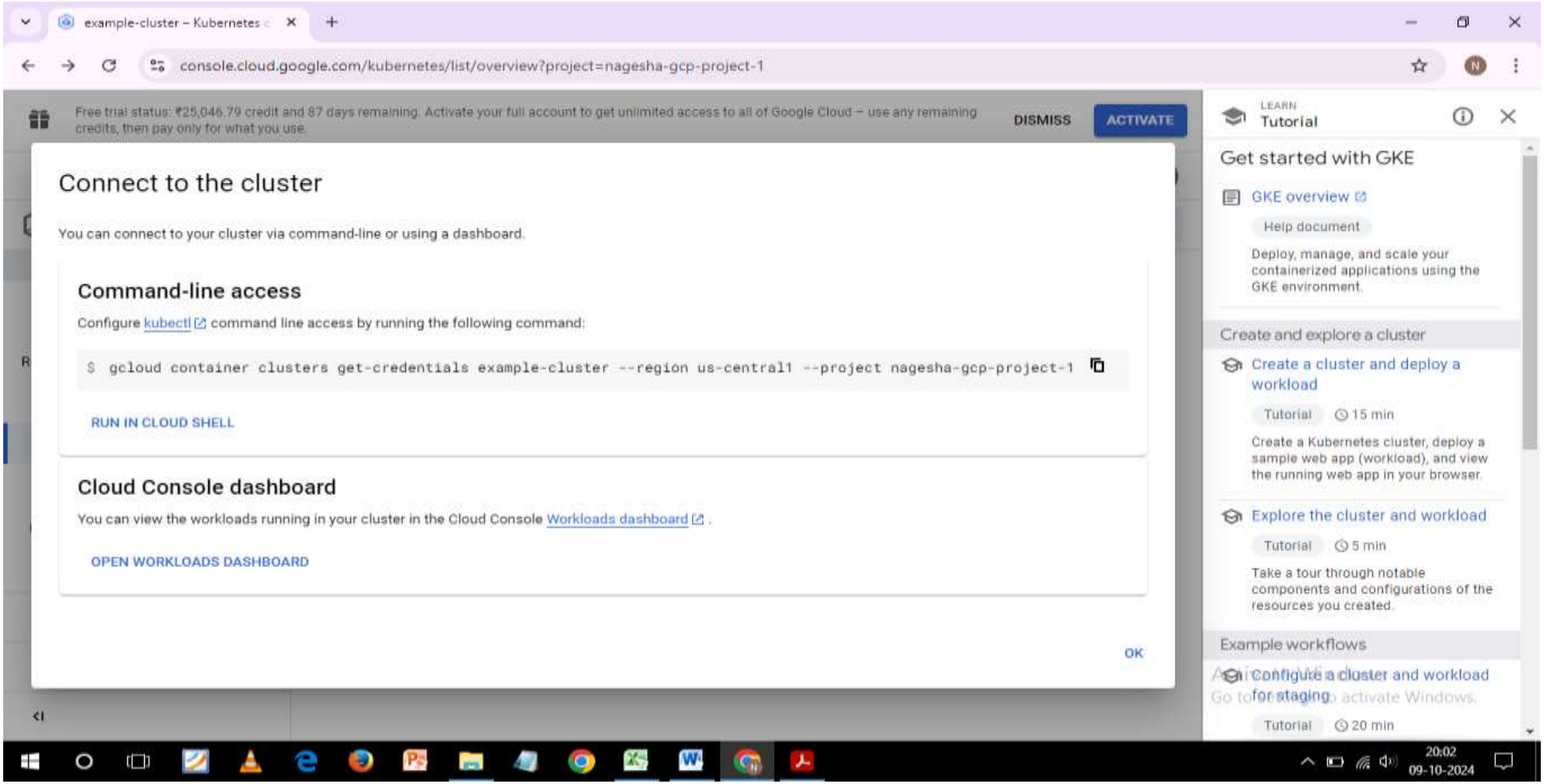

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
Security
Binary authorisation
Disabled
Secret Manager
Disabled
Shielded GKE nodes
Enabled
Confidential GKE Nodes
Disabled
Service account
default
Cloud API access scopes
Service Control
Enabled
Service Management
Read Only
Stackdriver Logging API
Write Only
Stackdriver Monitoring API
Full
Stackdriver Trace
Write Only
Storage
Read Only
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Activate Windows
Go to Settings to activate Windows.
Create a private cluster
Help document
19:59
09-10-2024

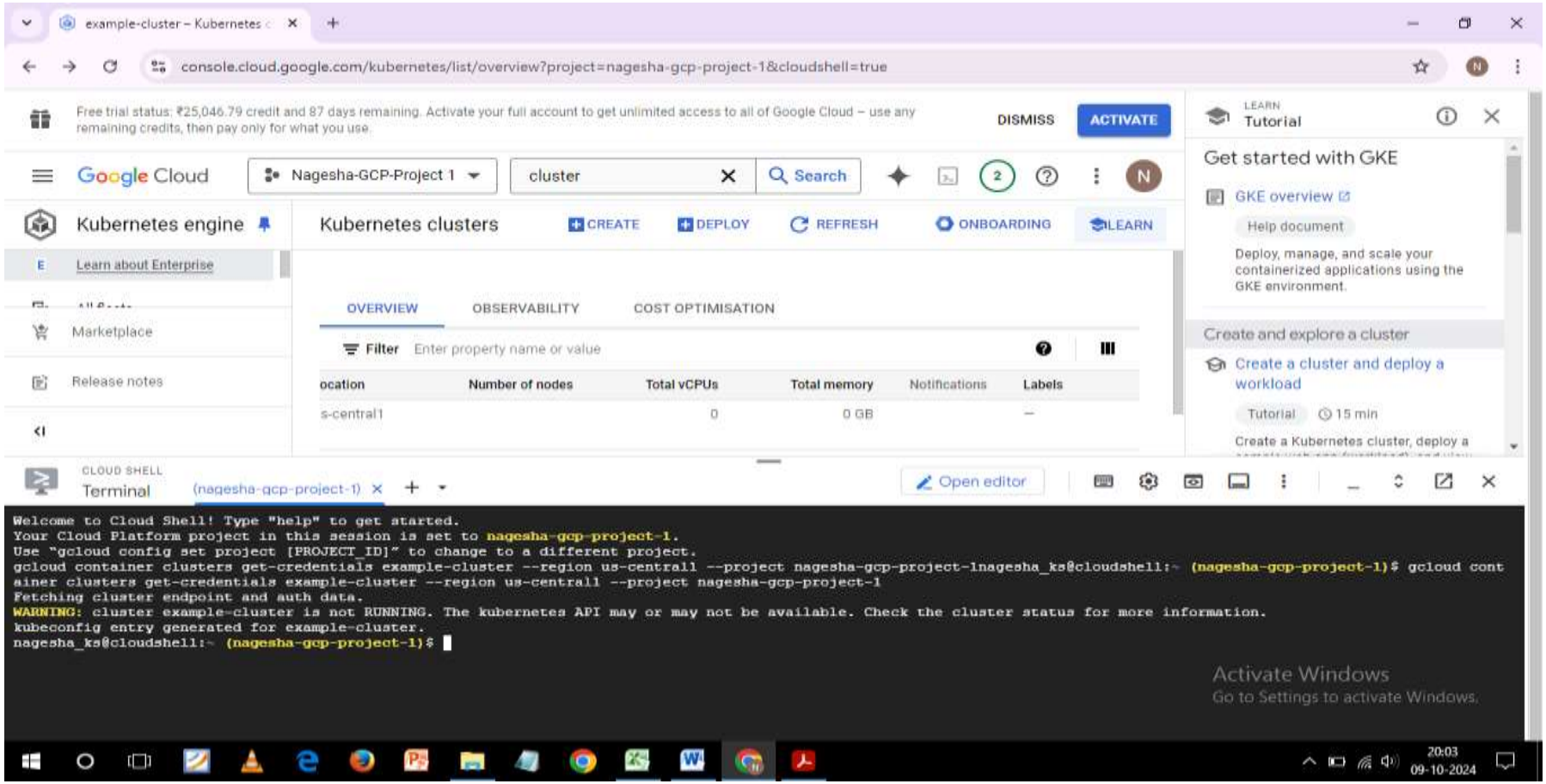

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
Application-layer secrets encryption
Disabled
Boot disk encryption
Google-managed
Workload Identity
Enabled
Workload identity namespace
nagesha-gcp-project-1.svc.id.goog
Google Groups for RBAC
Disabled
Legacy authorisation
Disabled
Basic authentication
Disabled
Client certificate
Disabled
Security posture
Basic
Workload vulnerability scanning
Disabled
Metadata
Description
None
Labels
None
Tags
None
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Create a private cluster
Help document
Activate Windows
Go to Settings to activate Windows.
19:59
09-10-2024

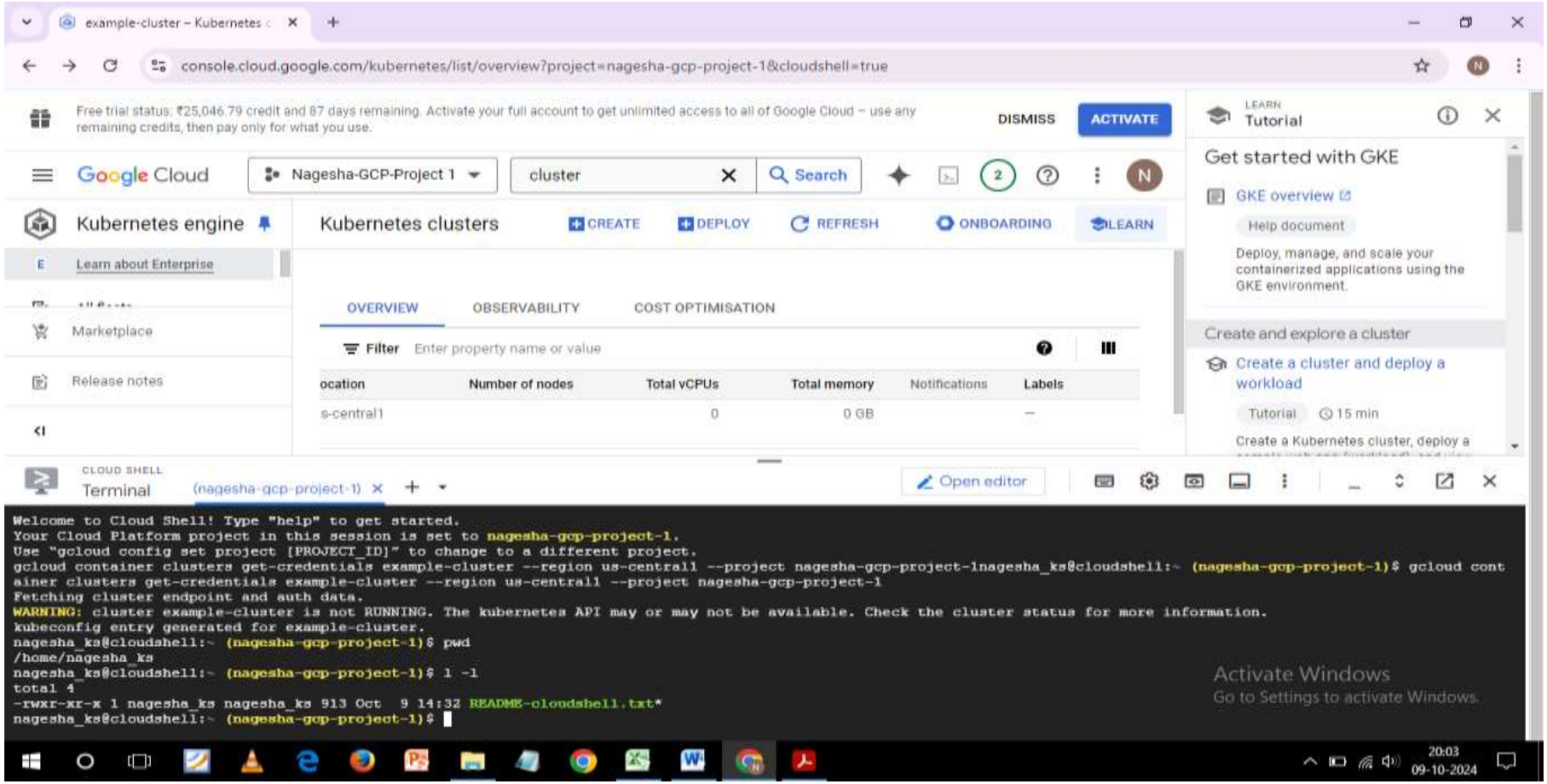

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
Workload vulnerability scanning
Disabled
Metadata
Description
None
Labels
None
Tags
None
Features
Ray Operator
Disabled
Logging
System, Workloads
View Logs
Cloud Monitoring
System, Persistent volume (storage), Pods, Deployment, StatefulSet, DaemonSet, Horizontal Pod auto-scaler, cAdvisor, Kubelet
View GKE dashboard
Managed service for Prometheus
Enabled
Cloud TPU
Disabled
Kubernetes alpha features
Disabled
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Create a private cluster
Help document
Activate Windows
Go to Settings to activate Windows.
20:00
09-10-2024

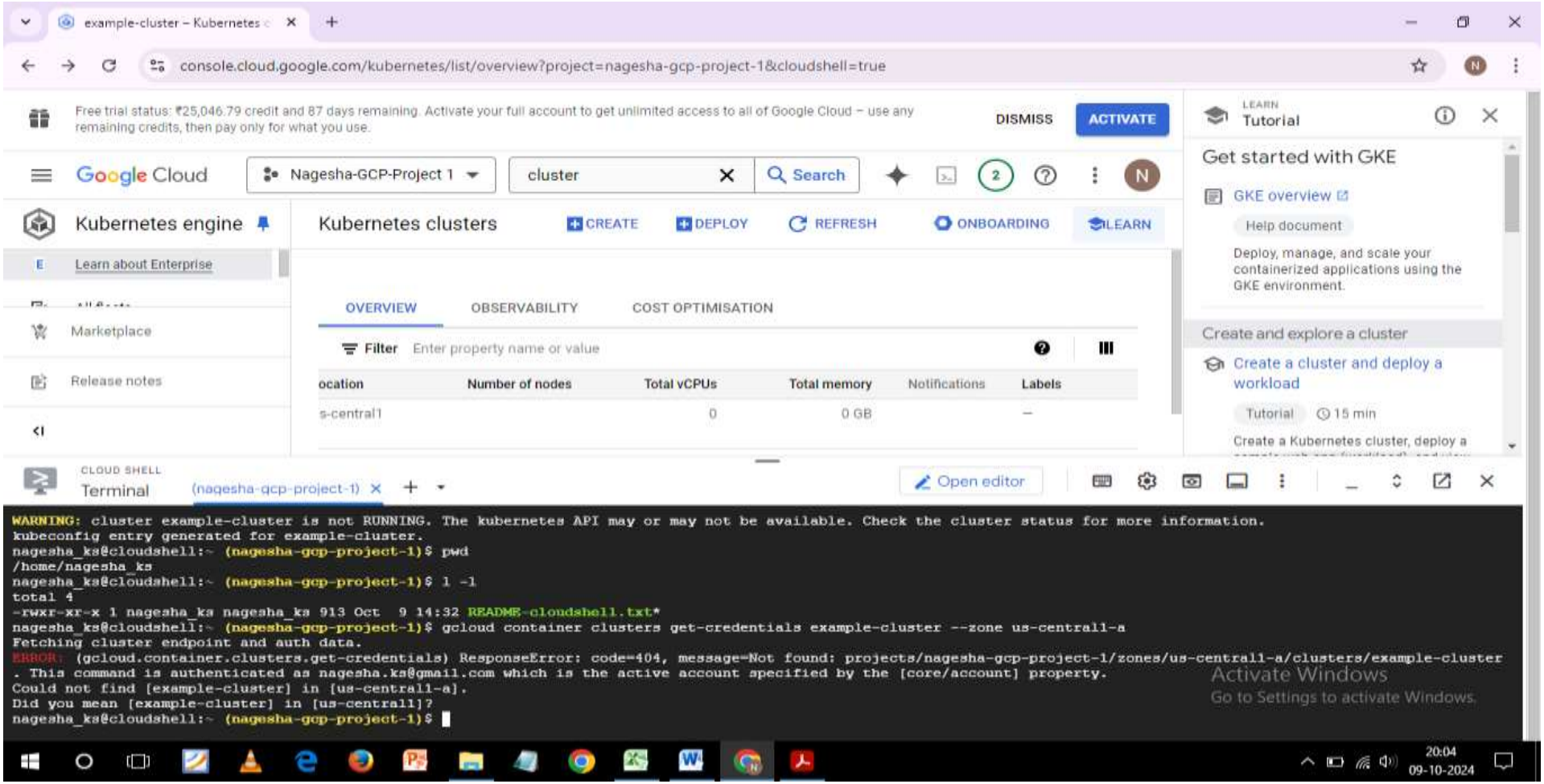

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/clusters/details/us-central1/example-cluster/details?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Clusters
DELETE
DEPLOY
CONNECT
DUPLICATE
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
View Logs
Cloud Monitoring
System, Persistent volume (storage), Pods, Deployment, StatefulSet, DaemonSet, Horizontal Pod auto-scaler, cAdvisor, Kubelet
View GKE dashboard
Managed service for Prometheus
Enabled
Cloud TPU
Disabled
Kubernetes alpha features
Disabled
Cost allocation
Disabled
GKE usage metering
Disabled
Backup for GKE
Disabled
Config Connector
Disabled
Compute Engine persistent disk CSI Driver
Enabled
Image streaming
Enabled
Filestore CSI driver
Enabled
Cloud Storage FUSE CSI driver
Enabled
Service Mesh
Disabled
LEARN
Tutorial
Recommended for you
Overview of node pools
Help document
Understand how node pools work in GKE.
Quickstart
Tutorial
Deploy a containerized web application on a GKE cluster, using Cloud console.
Add and manage node pools
Help document
Add and manage the node pools that are running in your GKE clusters.
Cluster architecture
Help document
Understand the architecture of GKE clusters, including cluster masters, nodes, and node-allocatable resources.
Create a private cluster
Help document
Activate Windows
Go to Settings to activate Windows.
20:00
09-10-2024

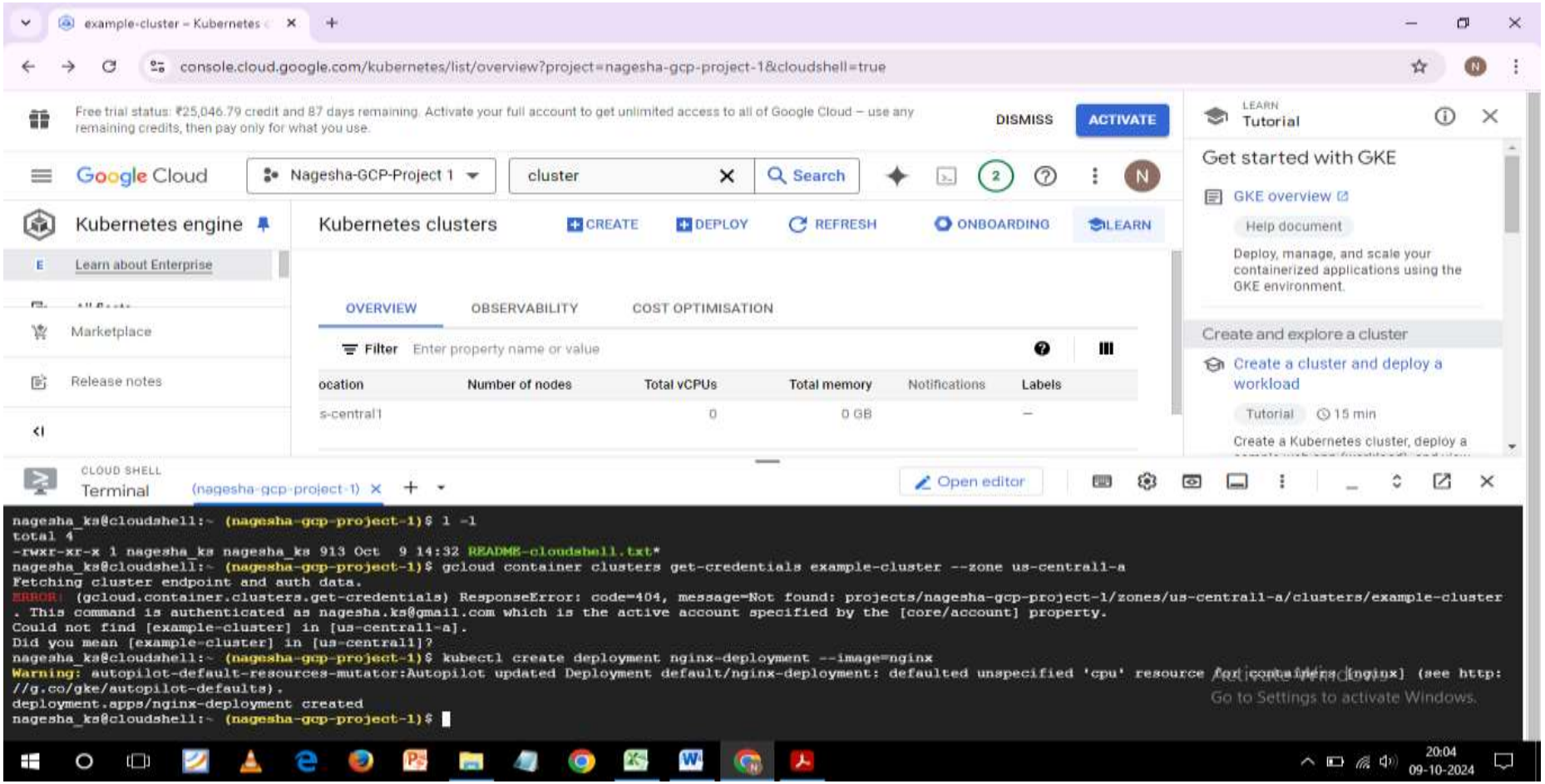

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
1 Kubernetes cluster selected
DELETE
LABELS
Learn about Enterprise
All fleets
Resource management
Overview
Clusters
Workloads
Teams
Applications
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
ocation
Number of nodes
Total vCPUs
Total memory
Notifications
Labels
s-central1
0
0 GB
–
Connect
LEARN
Tutorial
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
reate a Kubernetes cluster, deploy a ample web app (workload), and view he 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
Tutorial
20 min
20:00
09-10-2024

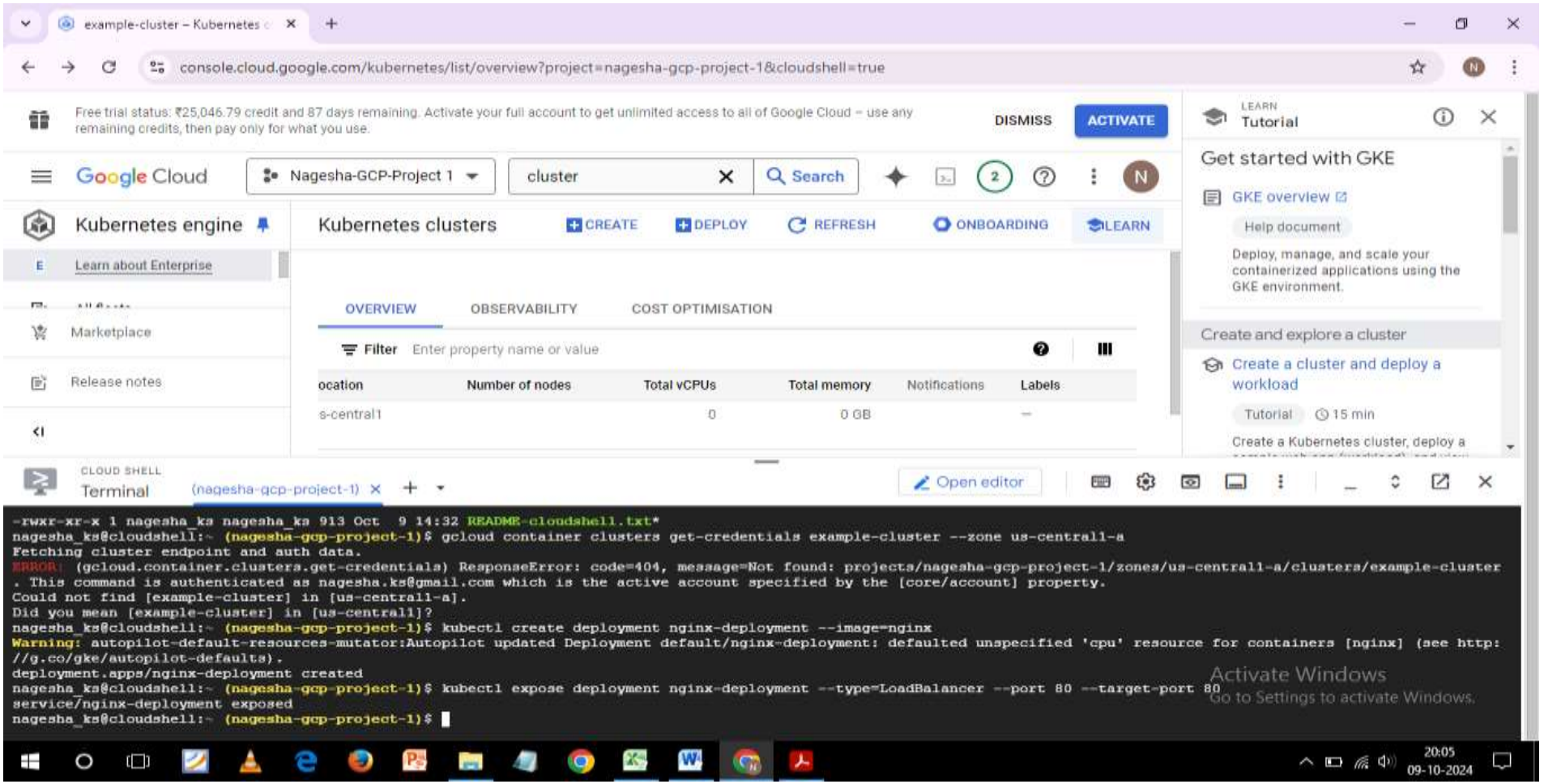

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Connect to the cluster
You can connect to your cluster via command-line or using a dashboard.
Command-line access
Configure kubectl command line access by running the following command:
$ gcloud container clusters get-credentials example-cluster --region us-central1 --project nagesha-gcp-project-1
RUN IN CLOUD SHELL
Cloud Console dashboard
You can view the workloads running in your cluster in the Cloud Console Workloads dashboard .
OPEN WORKLOADS DASHBOARD
OK
LEARN
Tutorial
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 for staging
Tutorial
20 min
20:02
09-10-2024

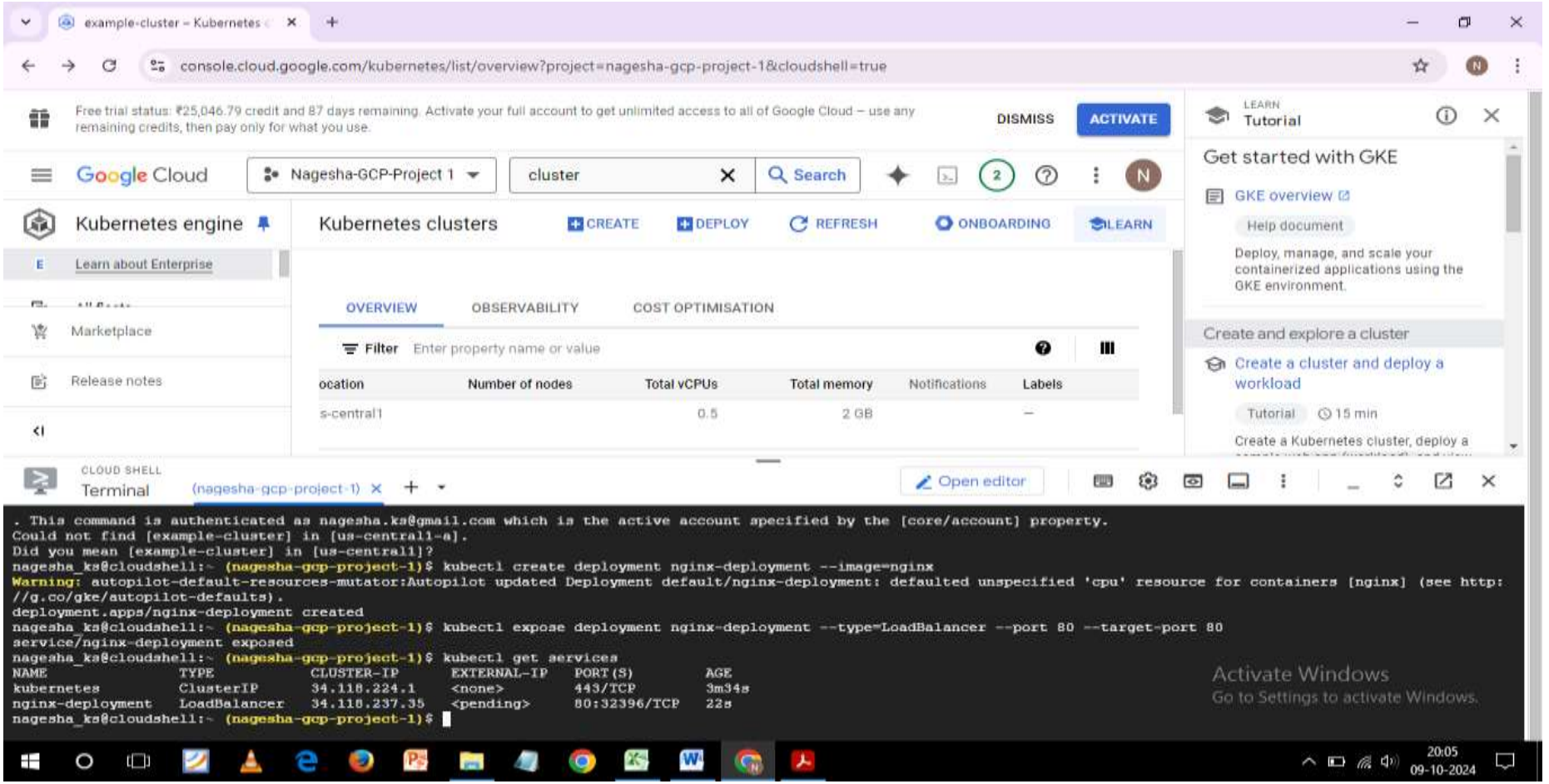

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Learn about Enterprise
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
ocation
Number of nodes
Total vCPUs
Total memory
Notifications
Labels
s-central1
0
0 GB
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to nagesha-gcp-project-1.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
gcloud container clusters get-credentials example-cluster --region us-central1 --project nagesha-gcp-project-1nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gcloud container clusters get-credentials example-cluster --region us-central1 --project nagesha-gcp-project-1
Fetching cluster endpoint and auth data.
WARNING: cluster example-cluster is not RUNNING. The kubernetes API may or may not be available. Check the cluster status for more information.
kubeconfig entry generated for example-cluster.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:03
09-10-2024

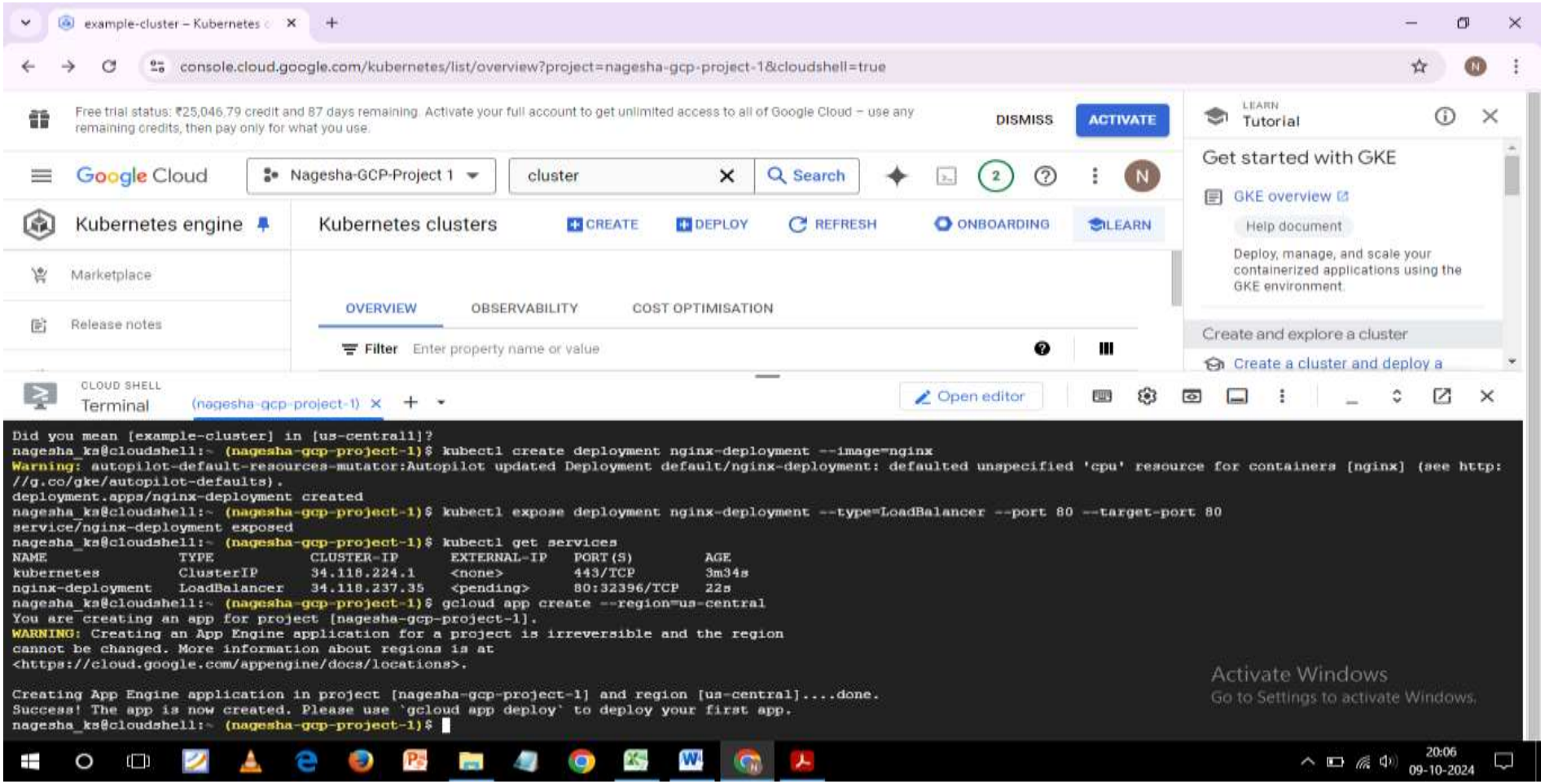

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Learn about Enterprise
Marketplace
Release notes
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
ocation
Number of nodes
Total vCPUs
Total memory
Notifications
Labels
s-central1
0
0 GB
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to nagesha-gcp-project-1.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
gcloud container clusters get-credentials example-cluster --region us-central1 --project nagesha-gcp-project-1nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gcloud container clusters get-credentials example-cluster --region us-central1 --project nagesha-gcp-project-1
Fetching cluster endpoint and auth data.
WARNING: cluster example-cluster is not RUNNING. The kubernetes API may or may not be available. Check the cluster status for more information.
kubeconfig entry generated for example-cluster.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ pwd
/home/nagesha_ks
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ l -l
total 4
-rwxr-xr-x 1 nagesha_ks nagesha_ks 913 Oct 9 14:32 README-cloudshell.txt*
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:03
09-10-2024

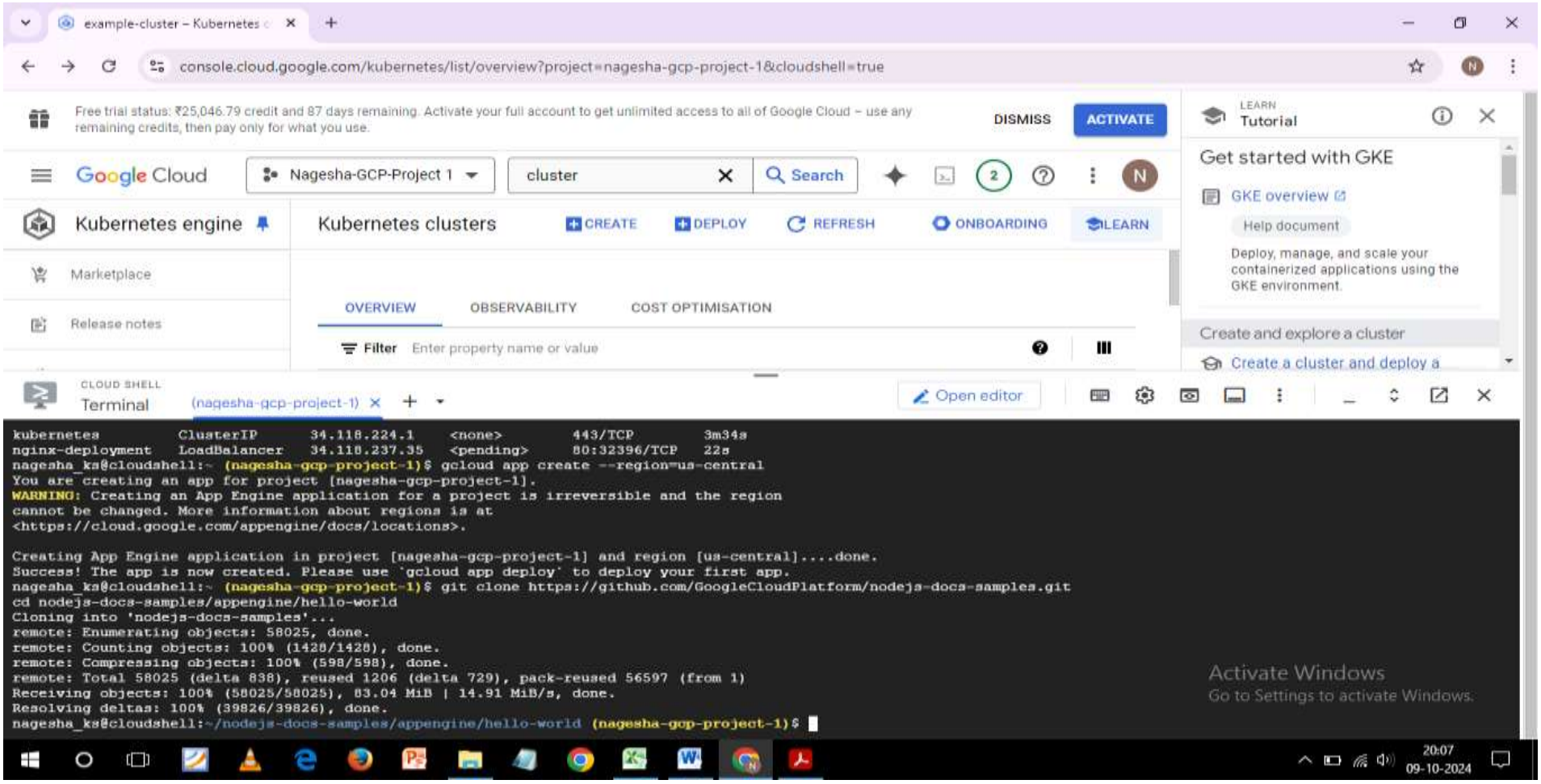

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Learn about Enterprise
Marketplace
Release notes
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
ocation
Number of nodes
Total vCPUs
Total memory
Notifications
Labels
s-central1
0
0 GB
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
WARNING: cluster example-cluster is not RUNNING. The kubernetes API may or may not be available. Check the cluster status for more information.
kubeconfig entry generated for example-cluster.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ pwd
/home/nagesha_ks
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ l -l
total 4
-rwxr-xr-x 1 nagesha_ks nagesha_ks 913 Oct 9 14:32 README-cloudshell.txt*
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gcloud container clusters get-credentials example-cluster --zone us-central1-a
Fetching cluster endpoint and auth data.
ERROR: (gcloud.container.clusters.get-credentials) ResponseError: code=404, message=Not found: projects/nagesha-gcp-project-1/zones/us-central1-a/clusters/example-cluster
. This command is authenticated as nagesha.ks@gmail.com which is the active account specified by the [core/account] property.
Could not find [example-cluster] in [us-central1-a].
Did you mean [example-cluster] in [us-central1]?
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:04
09-10-2024

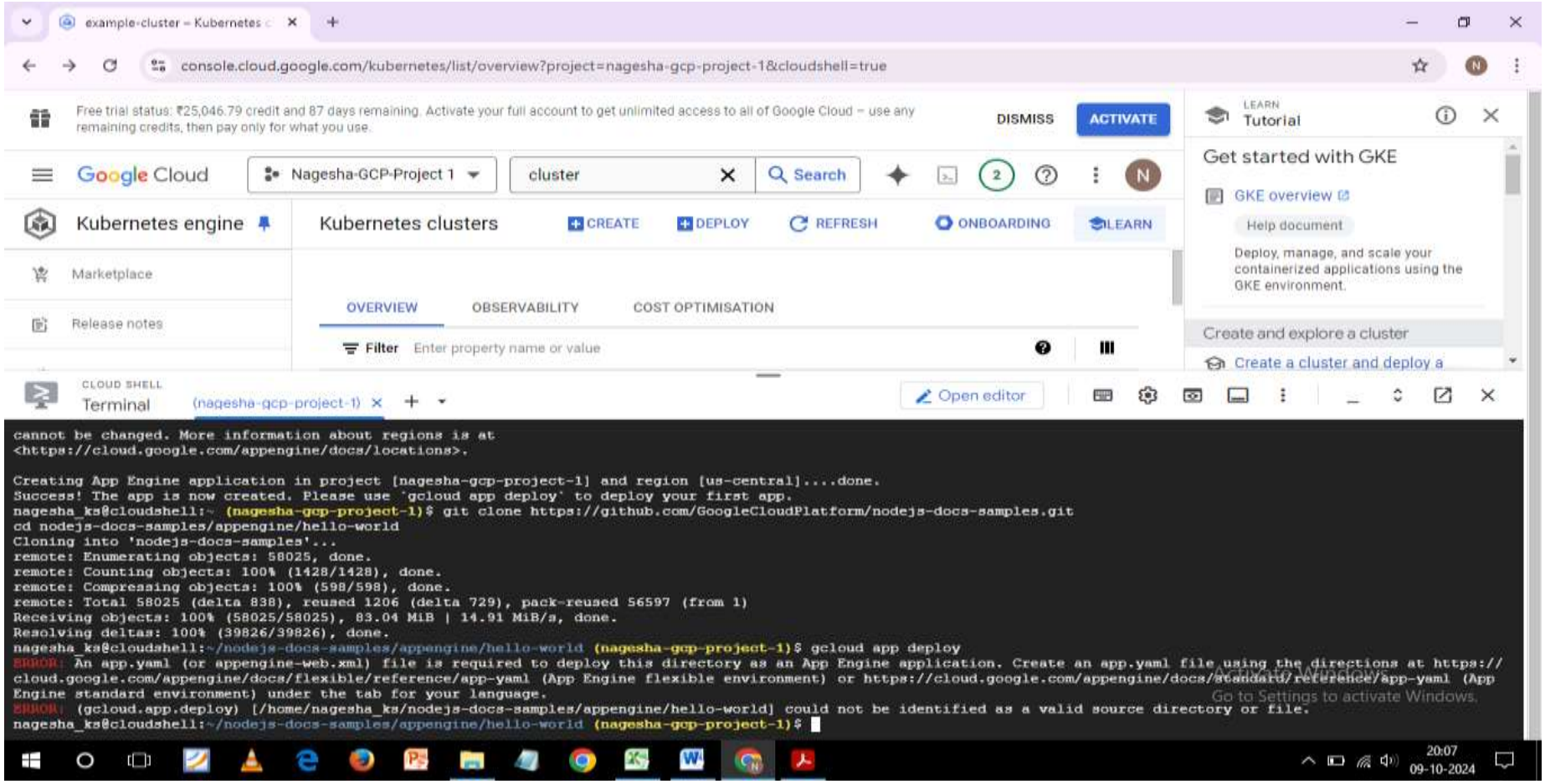

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Learn about Enterprise
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
ocation
Number of nodes
Total vCPUs
Total memory
Notifications
Labels
s-central1
0
0 GB
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ l -l
total 4
-rwxr-xr-x 1 nagesha_ks nagesha_ks 913 Oct 9 14:32 README-cloudshell.txt*
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gcloud container clusters get-credentials example-cluster --zone us-central1-a
Fetching cluster endpoint and auth data.
ERROR: (gcloud.container.clusters.get-credentials) ResponseError: code=404, message=Not found: projects/nagesha-gcp-project-1/zones/us-central1-a/clusters/example-cluster
. This command is authenticated as nagesha.ks@gmail.com which is the active account specified by the [core/account] property.
Could not find [example-cluster] in [us-central1-a].
Did you mean [example-cluster] in [us-central1]?
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl create deployment nginx-deployment --image=nginx
Warning: autopilot-default-resources-mutator:Autopilot updated Deployment default/nginx-deployment: defaulted unspecified 'cpu' resource for containers [nginx] (see http://g.co/gke/autopilot-defaults).
deployment.apps/nginx-deployment created
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
Go to Settings to activate Windows.
20:04
09-10-2024

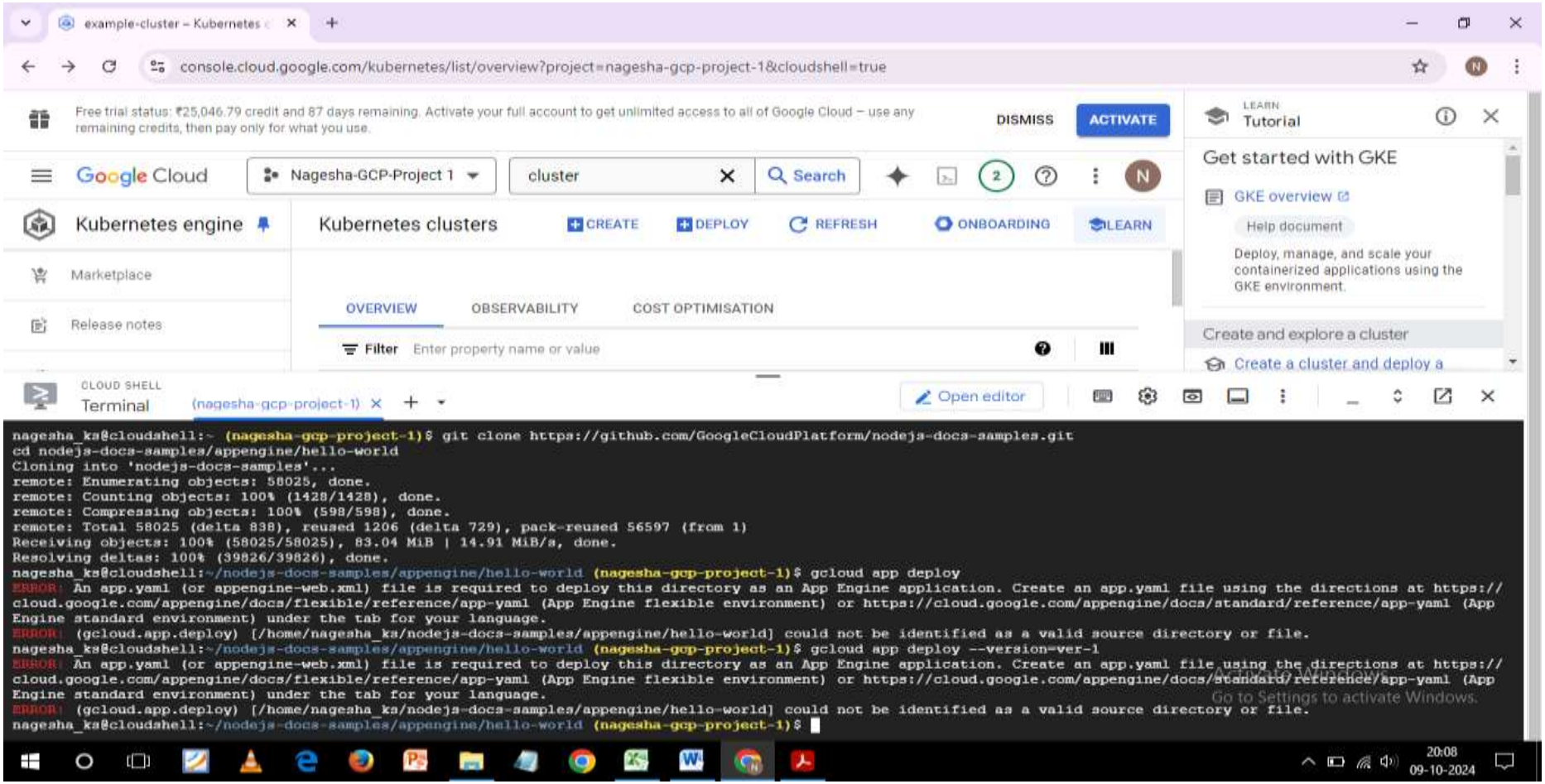

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Learn about Enterprise
Marketplace
Release notes
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
ocation
Number of nodes
Total vCPUs
Total memory
Notifications
Labels
s-central1
0
0 GB
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
-rwxr-xr-x 1 nagesha_ks nagesha_ks 913 Oct 9 14:32 README-cloudshell.txt*
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gcloud container clusters get-credentials example-cluster --zone us-central1-a
Fetching cluster endpoint and auth data.
ERROR: (gcloud.container.clusters.get-credentials) ResponseError: code=404, message=Not found: projects/nagesha-gcp-project-1/zones/us-central1-a/clusters/example-cluster
. This command is authenticated as nagesha.ks@gmail.com which is the active account specified by the [core/account] property.
Could not find [example-cluster] in [us-central1-a].
Did you mean [example-cluster] in [us-central1]?
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl create deployment nginx-deployment --image=nginx
Warning: autopilot-default-resources-mutator:Autopilot updated Deployment default/nginx-deployment: defaulted unspecified 'cpu' resource for containers [nginx] (see http:
//g.co/gke/autopilot-defaults).
deployment.apps/nginx-deployment created
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl expose deployment nginx-deployment --type=LoadBalancer --port 80 --target-port 80
service/nginx-deployment exposed
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:05
09-10-2024

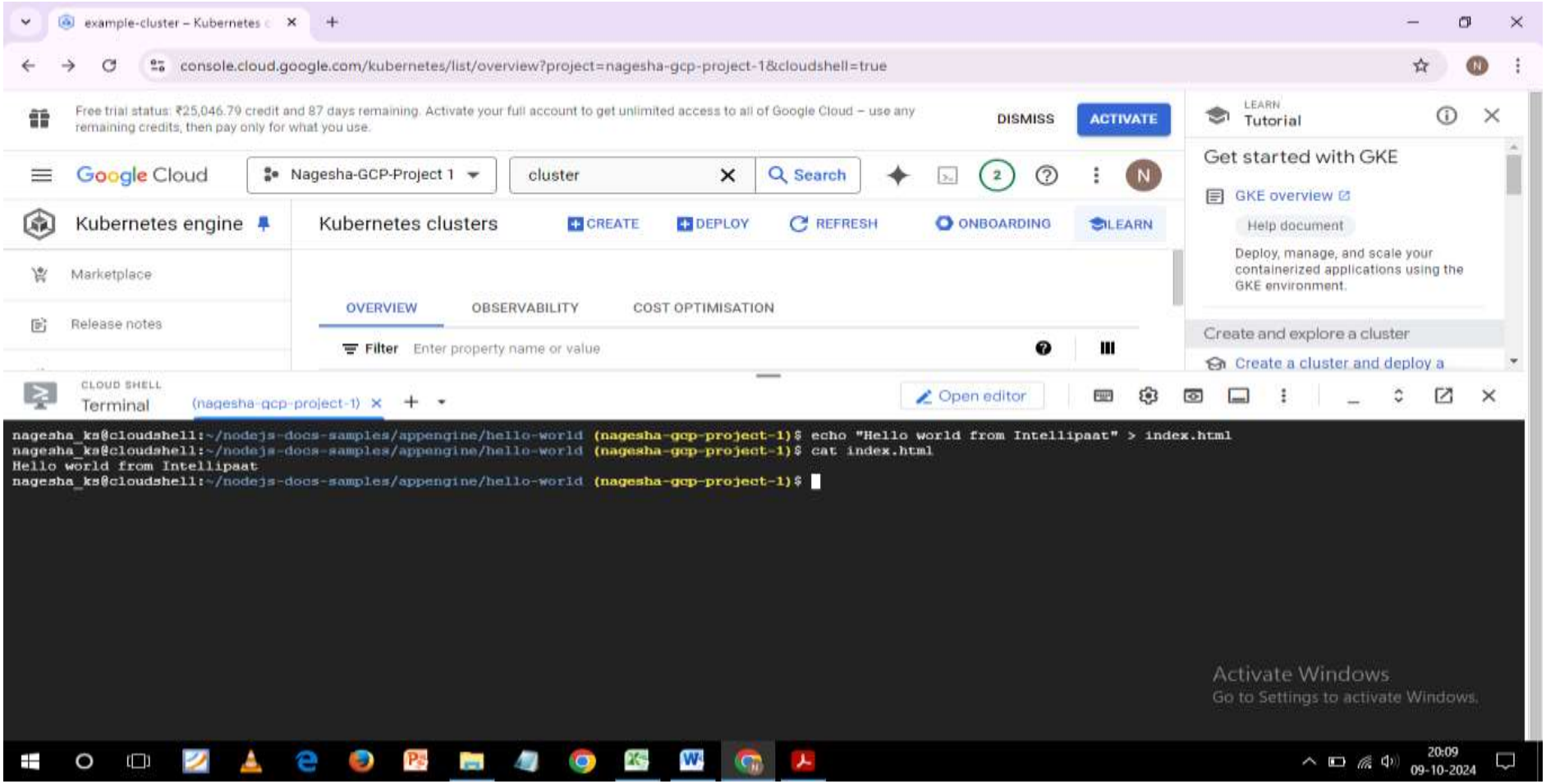

example-cluster - Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Learn about Enterprise
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
ocation
Number of nodes
Total vCPUs
Total memory
Notifications
Labels
s-central1
0.5
2 GB
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
. This command is authenticated as nagesha.ks@gmail.com which is the active account specified by the [core/account] property.
Could not find [example-cluster] in [us-central1-a].
Did you mean [example-cluster] in [us-central1]?
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl create deployment nginx-deployment --image=nginx
Warning: autopilot-default-resources-mutator:Autopilot updated Deployment default/nginx-deployment: defaulted unspecified 'cpu' resource for containers [nginx] (see http://g.co/gke/autopilot-defaults).
deployment.apps/nginx-deployment created
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl expose deployment nginx-deployment --type=LoadBalancer --port 80 --target-port 80
service/nginx-deployment exposed
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl get services
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
kubernetes ClusterIP 34.118.224.1 <none> 443/TCP 3m34s
nginx-deployment LoadBalancer 34.118.237.35 <pending> 80:32396/TCP 22s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:05
09-10-2024

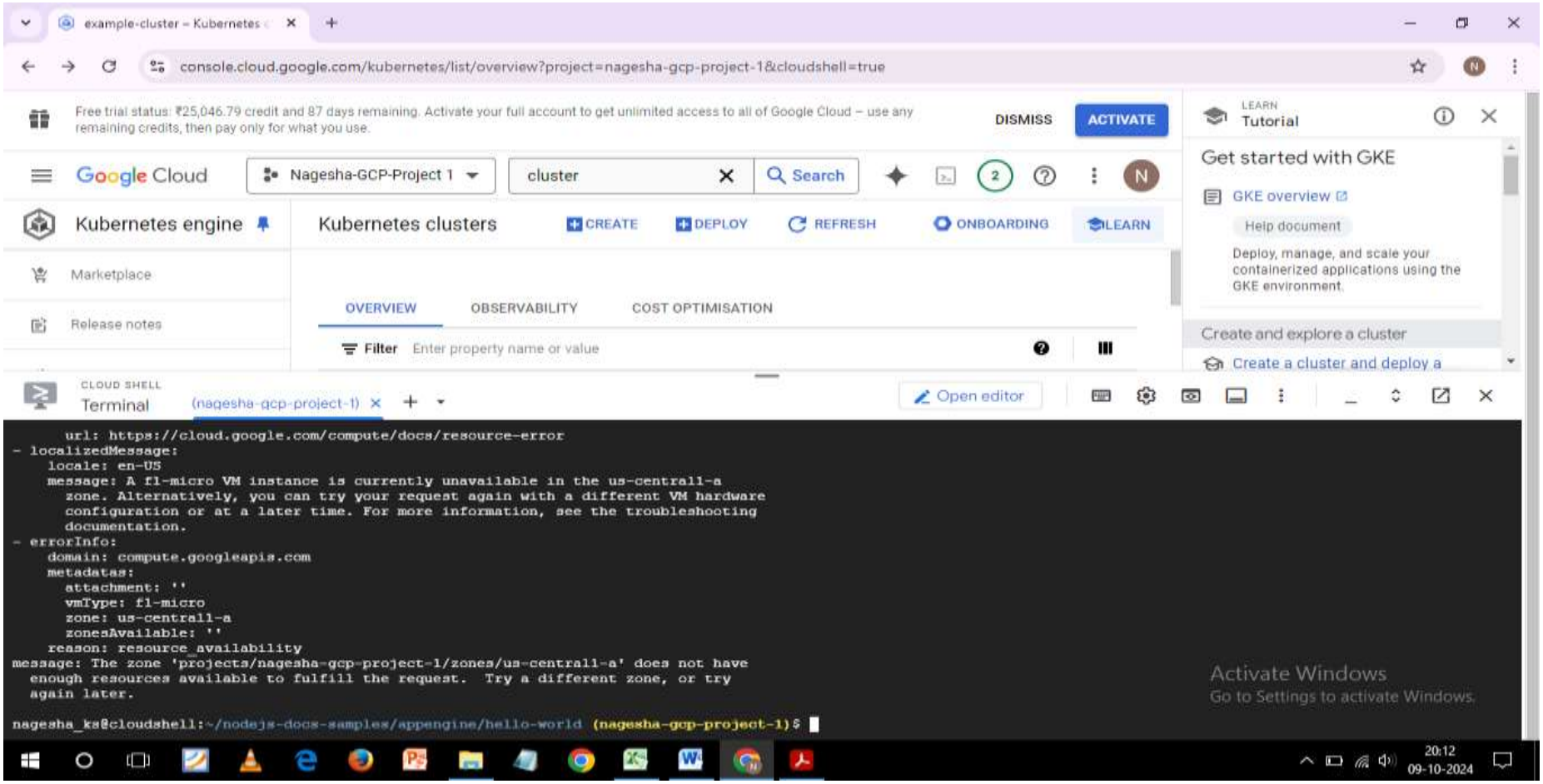

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
Did you mean [example-cluster] in [us-central1]?
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl create deployment nginx-deployment --image=nginx
Warning: autopilot-default-resources-mutator:Autopilot updated Deployment default/nginx-deployment: defaulted unspecified 'cpu' resource for containers [nginx] (see http://g.co/gke/autopilot-defaults).
deployment.apps/nginx-deployment created
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl expose deployment nginx-deployment --type=LoadBalancer --port 80 --target-port 80
service/nginx-deployment exposed
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ kubectl get services
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
kubernetes ClusterIP 34.118.224.1 <none> 443/TCP 3m34s
nginx-deployment LoadBalancer 34.118.237.35 <pending> 80:32396/TCP 22s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gcloud app create --region=us-central
You are creating an app for project [nagesha-gcp-project-1].
WARNING: Creating an App Engine application for a project is irreversible and the region
cannot be changed. More information about regions is at
<https://cloud.google.com/appengine/docs/locations>.
Creating App Engine application in project [nagesha-gcp-project-1] and region [us-central]....done.
Success! The app is now created. Please use `gcloud app deploy` to deploy your first app.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:06
09-10-2024

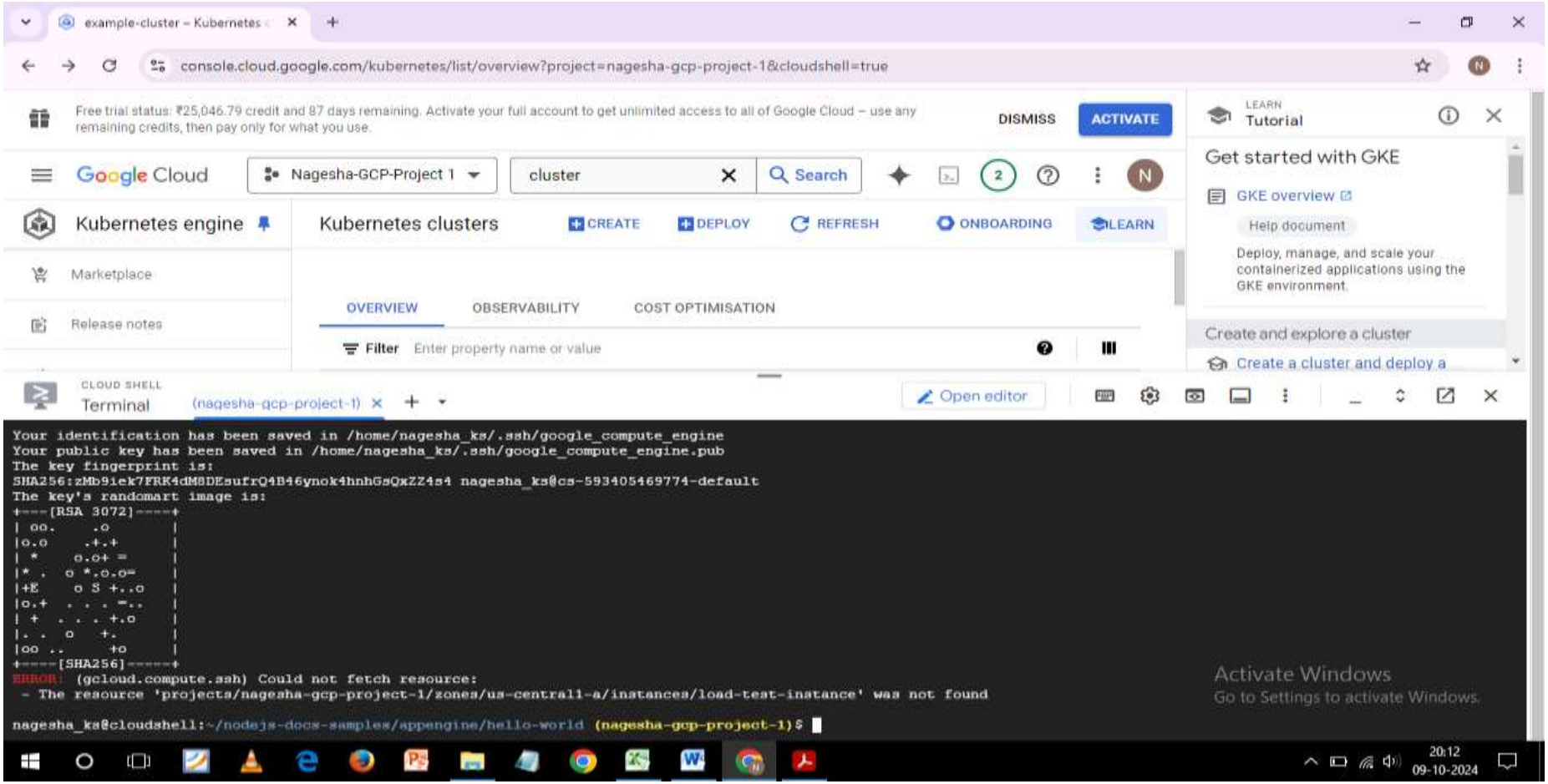

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
kubernetes ClusterIP 34.118.224.1 <none> 443/TCP 3m34s
nginx-deployment LoadBalancer 34.118.237.35 <pending> 80:32396/TCP 22s
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ gcloud app create --region=us-central
You are creating an app for project [nagesha-gcp-project-1].
WARNING: Creating an App Engine application for a project is irreversible and the region
cannot be changed. More information about regions is at
<https://cloud.google.com/appengine/docs/locations>.
Creating App Engine application in project [nagesha-gcp-project-1] and region [us-central]....done.
Success! The app is now created. Please use `gcloud app deploy` to deploy your first app.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ git clone https://github.com/GoogleCloudPlatform/nodejs-docs-samples.git
cd nodejs-docs-samples/appengine/hello-world
Cloning into 'nodejs-docs-samples'...
remote: Enumerating objects: 58025, done.
remote: Counting objects: 100% (1428/1428), done.
remote: Compressing objects: 100% (598/598), done.
remote: Total 58025 (delta 838), reused 1206 (delta 729), pack-reused 56597 (from 1)
Receiving objects: 100% (58025/58025), 83.04 MiB | 14.91 MiB/s, done.
Resolving deltas: 100% (39826/39826), done.
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:07
09-10-2024

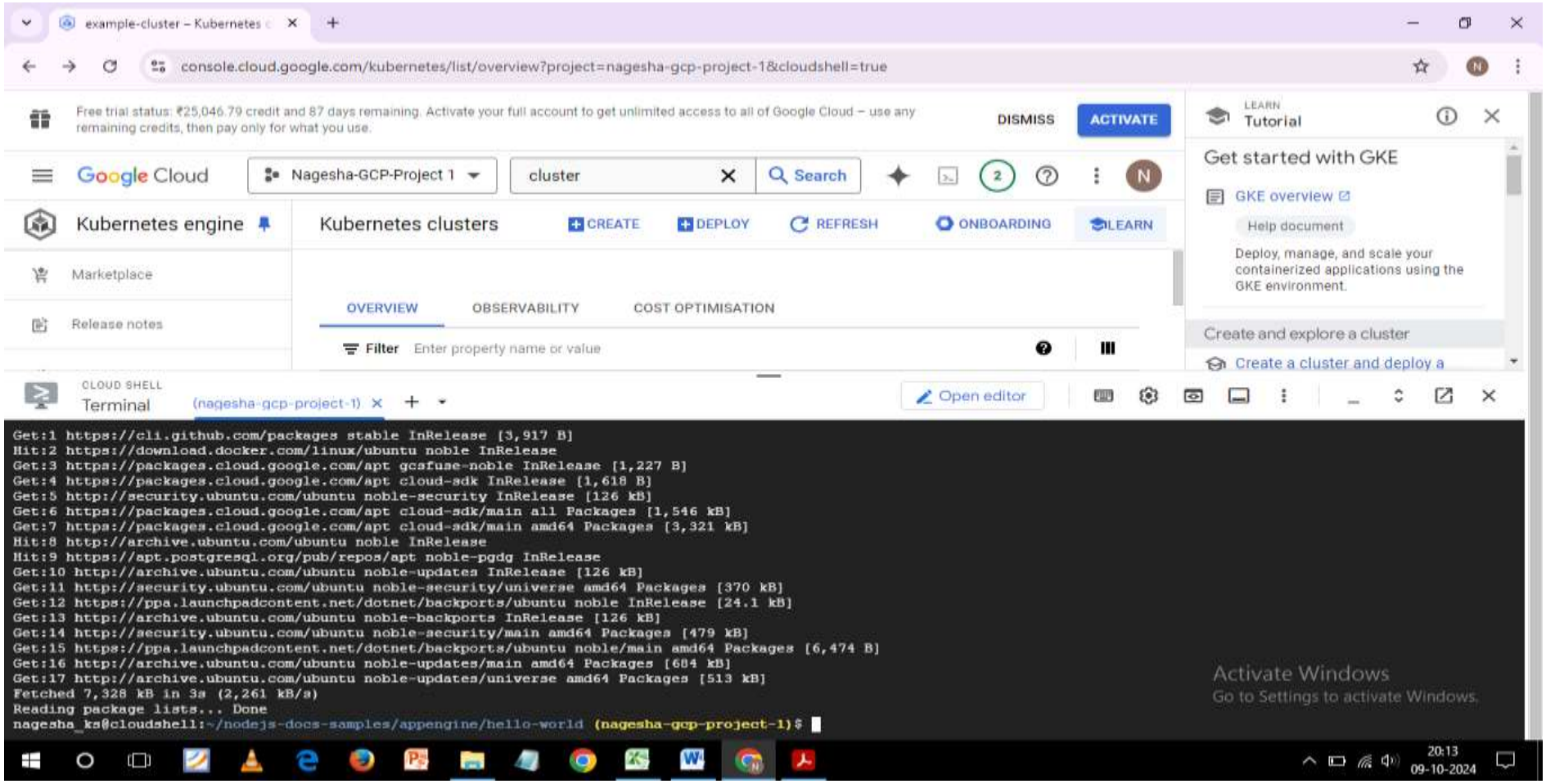

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
cannot be changed. More information about regions is at
<https://cloud.google.com/appengine/docs/locations>.
Creating App Engine application in project [nagesha-gcp-project-1] and region [us-central]....done.
Success! The app is now created. Please use `gcloud app deploy` to deploy your first app.
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ git clone https://github.com/GoogleCloudPlatform/nodejs-docs-samples.git
cd nodejs-docs-samples/appengine/hello-world
Cloning into 'nodejs-docs-samples'...
remote: Enumerating objects: 58025, done.
remote: Counting objects: 100% (1428/1428), done.
remote: Compressing objects: 100% (598/598), done.
remote: Total 58025 (delta 838), reused 1206 (delta 729), pack-reused 56597 (from 1)
Receiving objects: 100% (58025/58025), 83.04 MiB | 14.91 MiB/s, done.
Resolving deltas: 100% (39826/39826), done.
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$ gcloud app deploy
ERROR: An app.yaml (or appengine-web.xml) file is required to deploy this directory as an App Engine application. Create an app.yaml file using the directions at https://
cloud.google.com/appengine/docs/flexible/reference/app-yaml (App Engine flexible environment) or https://cloud.google.com/appengine/docs/standard/reference/app-yaml (App
Engine standard environment) under the tab for your language.
ERROR: (gcloud.app.deploy) [/home/nagesha_ks/nodejs-docs-samples/appengine/hello-world] could not be identified as a valid source directory or file.
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:07
09-10-2024

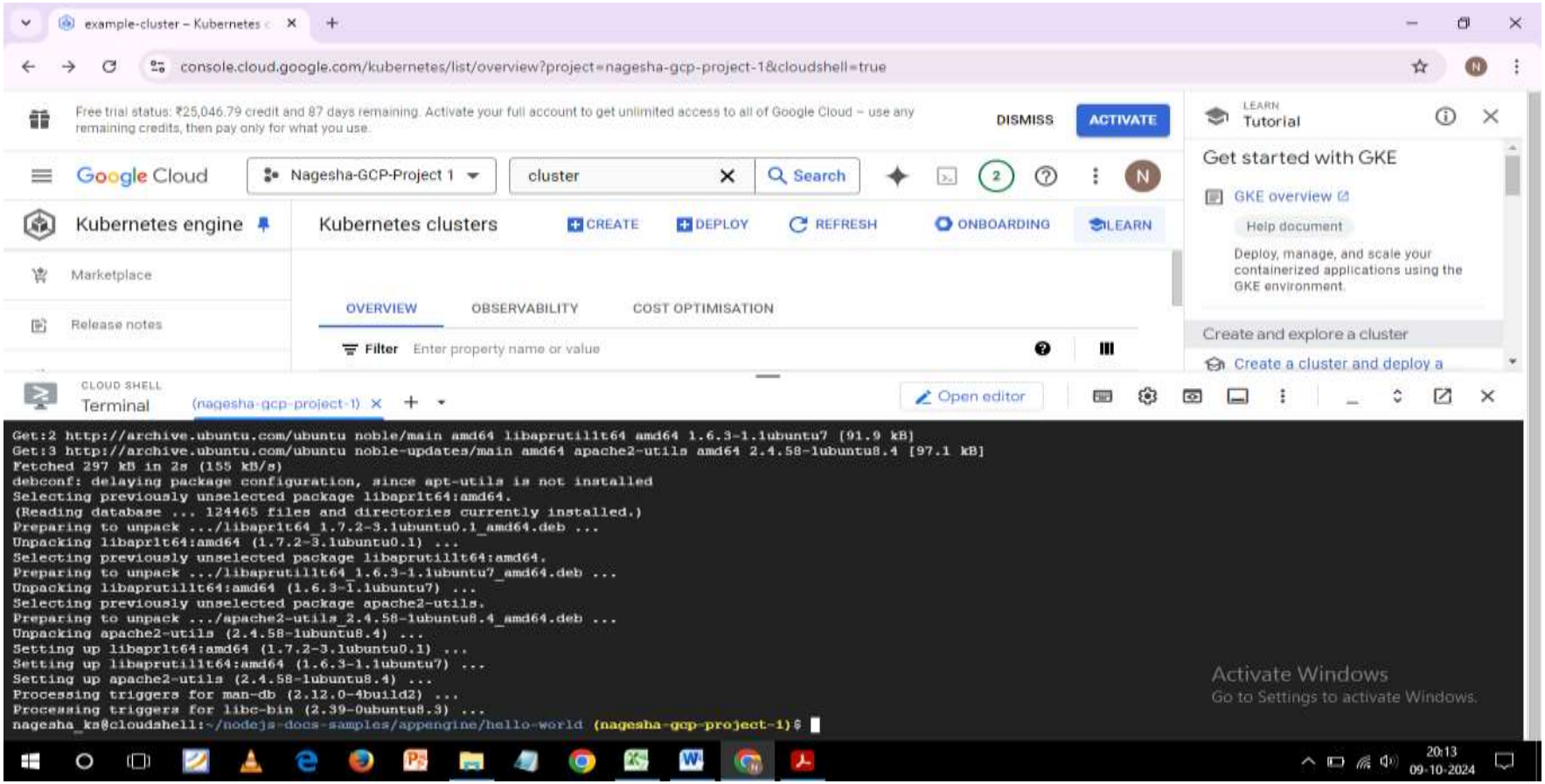

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
nagesha_ks@cloudshell:~ (nagesha-gcp-project-1)$ git clone https://github.com/GoogleCloudPlatform/nodejs-docs-samples.git
cd nodejs-docs-samples/appengine/hello-world
Cloning into 'nodejs-docs-samples'...
remote: Enumerating objects: 58025, done.
remote: Counting objects: 100% (1428/1428), done.
remote: Compressing objects: 100% (598/598), done.
remote: Total 58025 (delta 838), reused 1206 (delta 729), pack-reused 56597 (from 1)
Receiving objects: 100% (58025/58025), 83.04 MiB | 14.91 MiB/s, done.
Resolving deltas: 100% (39826/39826), done.
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$ gcloud app deploy
ERROR: An app.yaml (or appengine-web.xml) file is required to deploy this directory as an App Engine application. Create an app.yaml file using the directions at https://cloud.google.com/appengine/docs/flexible/reference/app-yaml (App Engine flexible environment) or https://cloud.google.com/appengine/docs/standard/reference/app-yaml (App Engine standard environment) under the tab for your language.
ERROR: (gcloud.app.deploy) [/home/nagesha_ks/nodejs-docs-samples/appengine/hello-world] could not be identified as a valid source directory or file.
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$ gcloud app deploy --version=ver-1
ERROR: An app.yaml (or appengine-web.xml) file is required to deploy this directory as an App Engine application. Create an app.yaml file using the directions at https://cloud.google.com/appengine/docs/flexible/reference/app-yaml (App Engine flexible environment) or https://cloud.google.com/appengine/docs/standard/reference/app-yaml (App Engine standard environment) under the tab for your language.
ERROR: (gcloud.app.deploy) [/home/nagesha_ks/nodejs-docs-samples/appengine/hello-world] could not be identified as a valid source directory or file.
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:08
09-10-2024

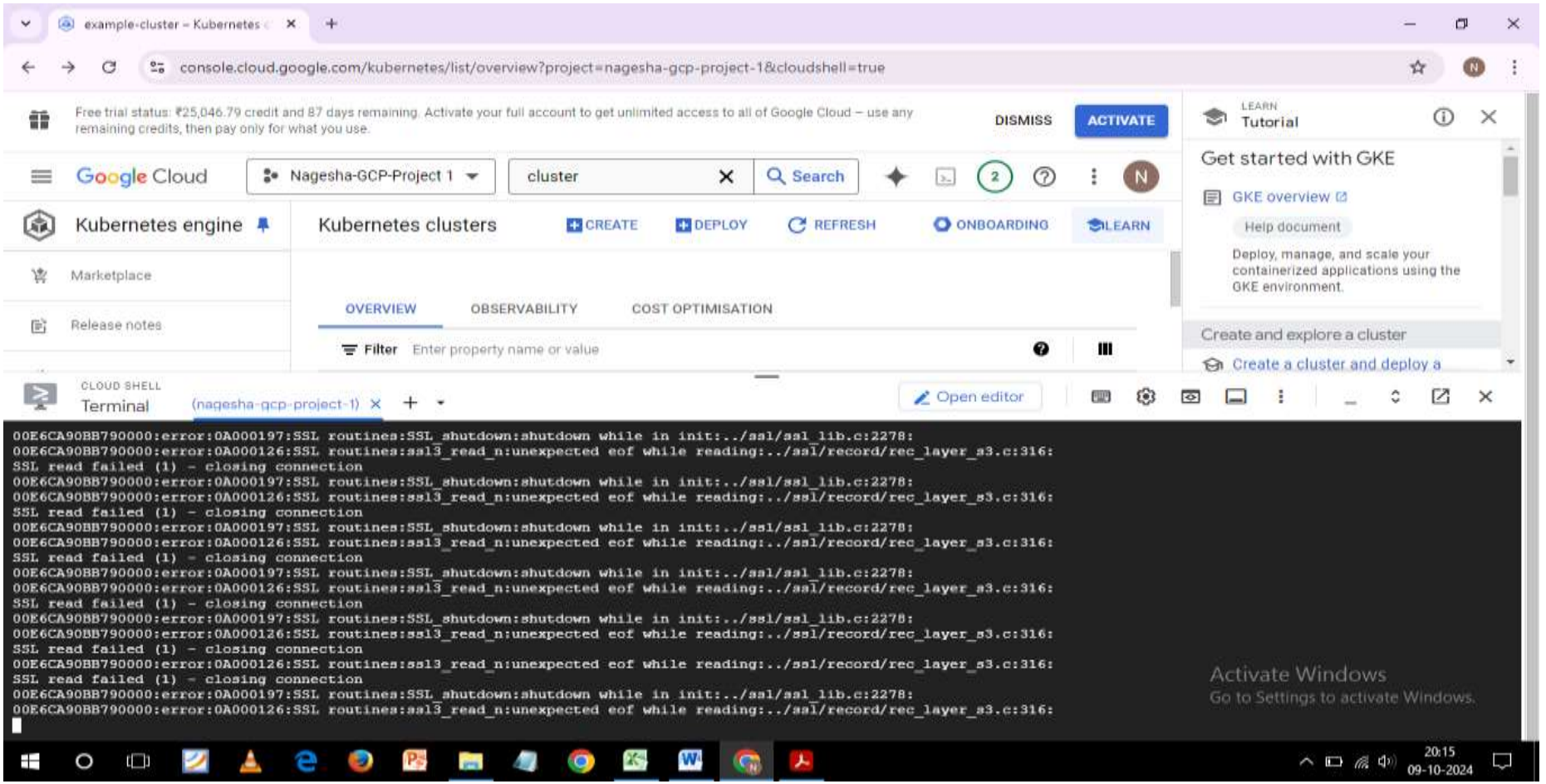

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$ echo "Hello world from Intellipaat" > index.html
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$ cat index.html
Hello world from Intellipaat
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:09
09-10-2024

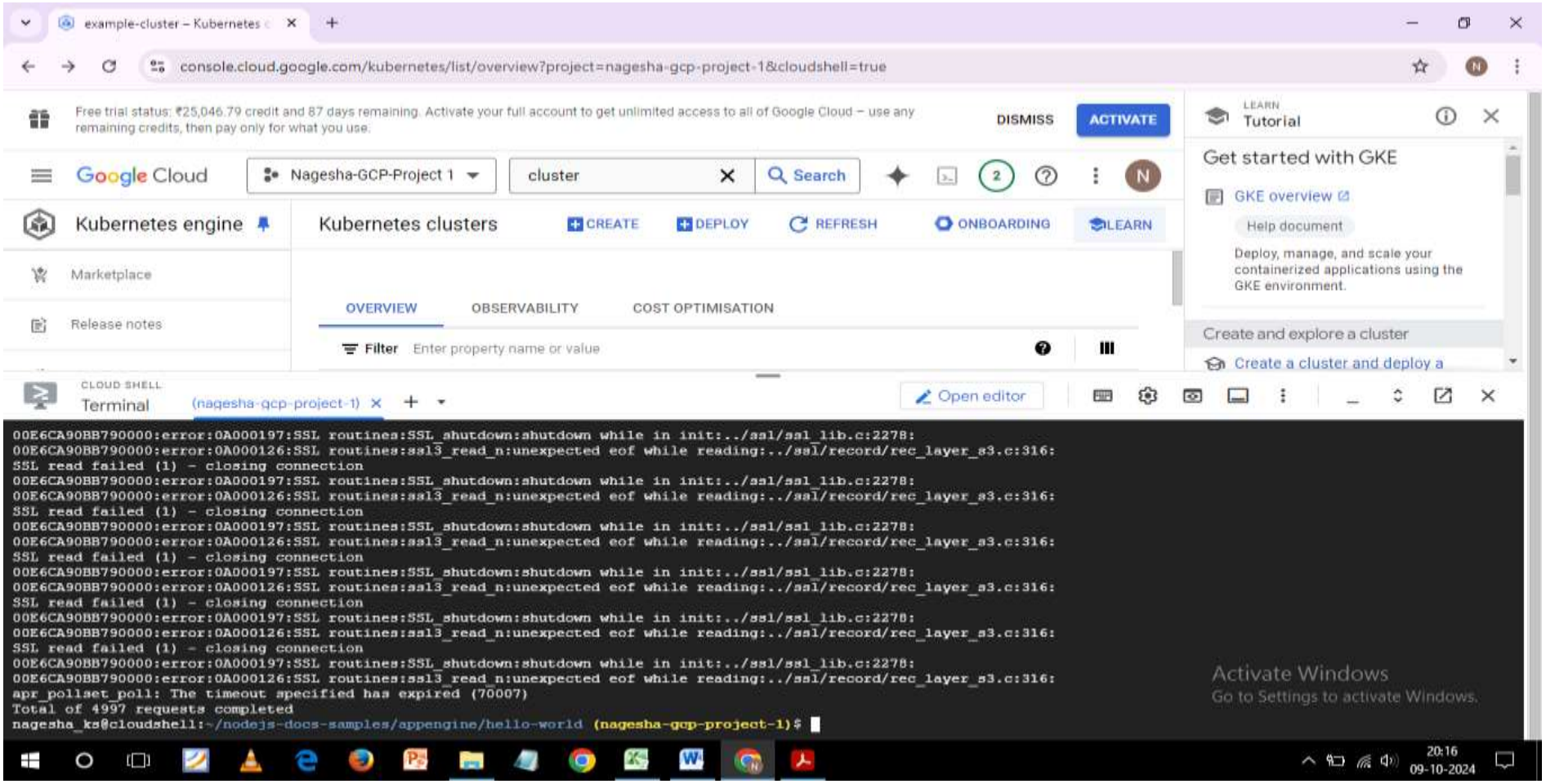

example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
url: https://cloud.google.com/compute/docs/resource-error
- localizedMessage:
locale: en-US
message: A f1-micro VM instance is currently unavailable in the us-central1-a zone. Alternatively, you can try your request again with a different VM hardware configuration or at a later time. For more information, see the troubleshooting documentation.
- errorInfo:
domain: compute.googleapis.com
metadatas:
attachment: ''
vmType: f1-micro
zone: us-central1-a
zonesAvailable: ''
reason: resource_availability
message: The zone 'projects/nagesha-gcp-project-1/zones/us-central1-a' does not have enough resources available to fulfill the request. Try a different zone, or try again later.
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:12
09-10-2024


example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
Your identification has been saved in /home/nagesha_ks/.ssh/google_compute_engine
Your public key has been saved in /home/nagesha_ks/.ssh/google_compute_engine.pub
The key fingerprint is:
SHA256:zMb91ek7FRK4dM8DEsufrQ4B46ynok4hnhGsQxZZ4s4 nagesha_ks@cs-593405469774-default
The key's randomart image is:
+---[RSA 3072]----+
| oo.   .o |
|o.o   .+.+ |
| *   o.o+ = |
|* .   o *.o.o= |
|+E   o S +..o |
|o.+   . . . =.. |
| +   . . . +.o |
|. .   o   +. |
|oo ..   +o |
+----[SHA256]-----+
ERROR: (gcloud.compute.ssh) Could not fetch resource:
 - The resource 'projects/nagesha-gcp-project-1/zones/us-central1-a/instances/load-test-instance' was not found
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:12
09-10-2024


example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
Get:1 https://cli.github.com/packages stable InRelease [3,917 B]
Hit:2 https://download.docker.com/linux/ubuntu noble InRelease
Get:3 https://packages.cloud.google.com/apt gcsfuse-noble InRelease [1,227 B]
Get:4 https://packages.cloud.google.com/apt cloud-sdk InRelease [1,618 B]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 https://packages.cloud.google.com/apt cloud-sdk/main all Packages [1,546 kB]
Get:7 https://packages.cloud.google.com/apt cloud-sdk/main amd64 Packages [3,321 kB]
Hit:8 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:9 https://apt.postgresql.org/pub/repos/apt noble-pgdg InRelease
Get:10 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [370 kB]
Get:12 https://ppa.launchpadcontent.net/dotnet/backports/ubuntu noble InRelease [24.1 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [479 kB]
Get:15 https://ppa.launchpadcontent.net/dotnet/backports/ubuntu noble/main amd64 Packages [6,474 B]
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [684 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [513 kB]
Fetched 7,328 kB in 3s (2,261 kB/s)
Reading package lists... Done
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:13
09-10-2024


example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
Get:2 http://archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.1ubuntu7 [91.9 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-utils amd64 2.4.58-1ubuntu8.4 [97.1 kB]
Fetched 297 kB in 2s (155 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package libapr1t64:amd64.
(Reading database ... 124465 files and directories currently installed.)
Preparing to unpack .../libapr1t64_1.7.2-3.1ubuntu0.1_amd64.deb ...
Unpacking libapr1t64:amd64 (1.7.2-3.1ubuntu0.1) ...
Selecting previously unselected package libaprutil1t64:amd64.
Preparing to unpack .../libaprutil1t64_1.6.3-1.1ubuntu7_amd64.deb ...
Unpacking libaprutil1t64:amd64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package apache2-utils.
Preparing to unpack .../apache2-utils_2.4.58-1ubuntu8.4_amd64.deb ...
Unpacking apache2-utils (2.4.58-1ubuntu8.4) ...
Setting up libapr1t64:amd64 (1.7.2-3.1ubuntu0.1) ...
Setting up libaprutil1t64:amd64 (1.6.3-1.1ubuntu7) ...
Setting up apache2-utils (2.4.58-1ubuntu8.4) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:13
09-10-2024


example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
00E6CA90BB790000:error:0A000197:SSL routines:SSL_shutdown:shutdown while in init:../ssl/ssl_lib.c:2278:
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
SSL read failed (1) - closing connection
00E6CA90BB790000:error:0A000197:SSL routines:SSL_shutdown:shutdown while in init:../ssl/ssl_lib.c:2278:
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
SSL read failed (1) - closing connection
00E6CA90BB790000:error:0A000197:SSL routines:SSL_shutdown:shutdown while in init:../ssl/ssl_lib.c:2278:
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
SSL read failed (1) - closing connection
00E6CA90BB790000:error:0A000197:SSL routines:SSL_shutdown:shutdown while in init:../ssl/ssl_lib.c:2278:
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
SSL read failed (1) - closing connection
00E6CA90BB790000:error:0A000197:SSL routines:SSL_shutdown:shutdown while in init:../ssl/ssl_lib.c:2278:
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
SSL read failed (1) - closing connection
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
SSL read failed (1) - closing connection
00E6CA90BB790000:error:0A000197:SSL routines:SSL_shutdown:shutdown while in init:../ssl/ssl_lib.c:2278:
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
Activate Windows
Go to Settings to activate Windows.
20:15
09-10-2024


example-cluster – Kubernetes
console.cloud.google.com/kubernetes/list/overview?project=nagesha-gcp-project-1&cloudshell=true
Free trial status: ₹25,046.79 credit and 87 days remaining. Activate your full account to get unlimited access to all of Google Cloud – use any remaining credits, then pay only for what you use.
DISMISS
ACTIVATE
Google Cloud
Nagesha-GCP-Project 1
cluster
Search
Kubernetes engine
Kubernetes clusters
CREATE
DEPLOY
REFRESH
ONBOARDING
LEARN
Marketplace
Release notes
OVERVIEW
OBSERVABILITY
COST OPTIMISATION
Filter
Enter property name or value
LEARN
Tutorial
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
CLOUD SHELL
Terminal
(nagesha-gcp-project-1)
Open editor
00E6CA90BB790000:error:0A000197:SSL routines:SSL_shutdown:shutdown while in init:../ssl/ssl_lib.c:2278:
00E6CA90BB790000:error:0A000126:SSL routines:ssl3_read_n:unexpected eof while reading:../ssl/record/rec_layer_s3.c:316:
SSL read failed (1) - closing connection
apr_pollset_poll: The timeout specified has expired (70007)
Total of 4997 requests completed
nagesha_ks@cloudshell:~/nodejs-docs-samples/appengine/hello-world (nagesha-gcp-project-1)$
Activate Windows
Go to Settings to activate Windows.
20:16
09-10-2024

Commands

Create a GKE Cluster

Log in to GCP Console.
Enable the GKE API.
Go to the APIs & Services -> Library > Kubernetes Engine API and enable it
Create a GKE Cluster.
Go to the Kubernetes Engine -> Clusters -> Create Cluster.
Settings:

- Cluster Name: example-cluster
- Location: Zonal (free tier) – Choose a zone, e.g., us-central1.
- Node pool: Set 1 node (for free tier limits).
- Click Create.

Connect to the cluster.
gcloud container clusters get-credentials example-cluster --zone us-central1-a

Deploy Nginx on GKE

Deploy the Nginx container.
Create a deployment for Nginx.
kubectl create deployment nginx-deployment --image=nginx
Expose Nginx to the internet.
kubectl expose deployment nginx-deployment --type=LoadBalancer --port 80 --target-port 80
Retrieve the external IP address.
kubectl get services
Nginx server using the IP in a browser.

Deploy a Node.js App on App Engine and Version Control

Deploy a Node.js Application on App Engine Standard
Install the GCP SDK and set up App Engine if not done.
gcloud app create --region=us-central
Clone the sample Node.js app provided by GCP for App Engine.
git clone https://github.com/GoogleCloudPlatform/nodejs-docs-samples.git
cd nodejs-docs-samples/appengine/hello-world

Deploy the app using gcloud.
gcloud app deploy

Deploy Version 1
gcloud app deploy --version=ver-1
gcloud app browse

Modify the HTML Content and Deploy Version 2
echo "Hello world from Intellipaat" > index.html
Deploy as version ver-2.
gcloud app deploy --version=ver-2

Goto browser and paste **https://ver-1.nagesha-gcp-project-1.appspot.com**

Load Testing the Instance
Create a test instance.
gcloud compute instances create load-test-instance --zone=us-central1-a --machine-type=f1-micro
SSH into the instance.
gcloud compute ssh load-test-instance --zone=us-central1-a
Install apache-utils.
sudo apt-get update
sudo apt-get install apache2-utils
Load test with ab (Apache Benchmark).
ab -n 5000 -c 100 https://ver-2.nagesha-gcp-project-1.appspot.com/