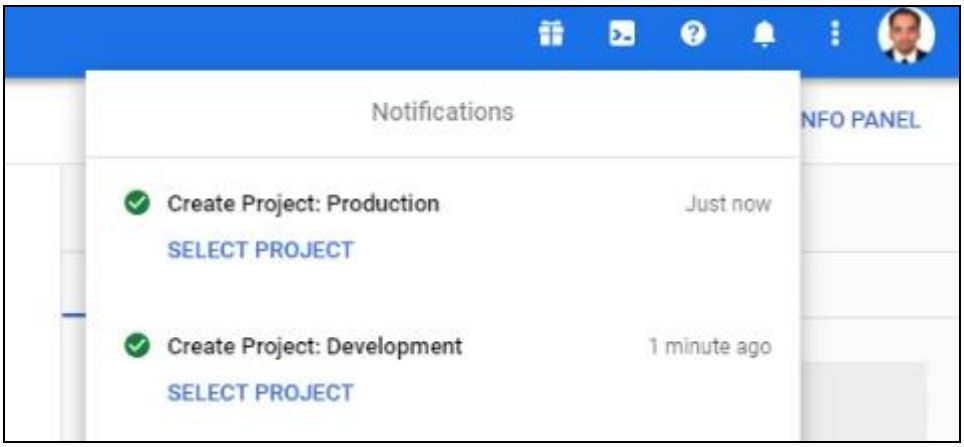
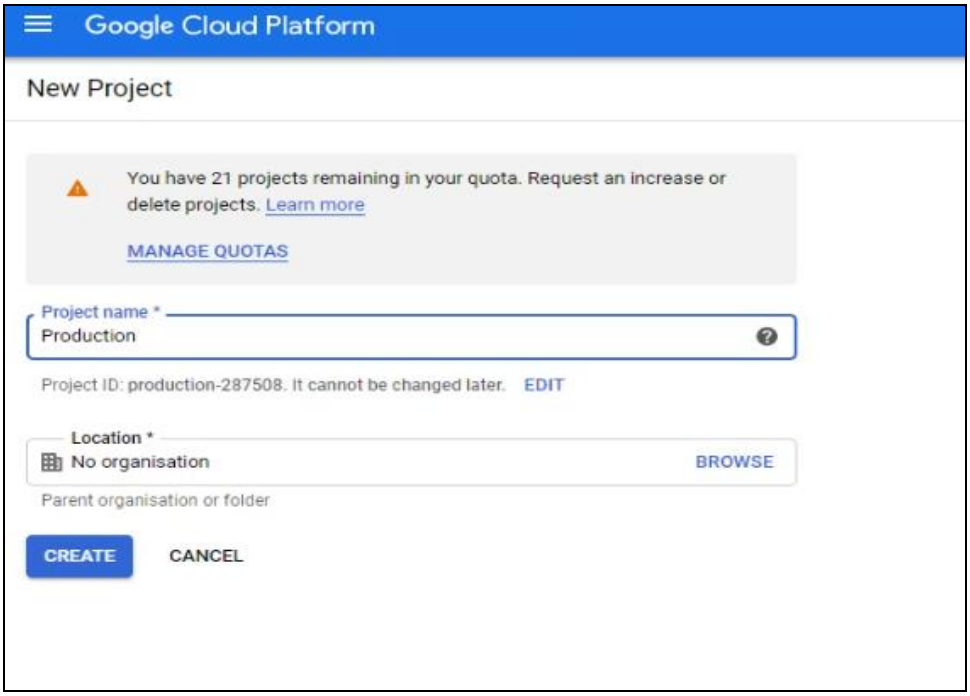
Google Cloud Platform (VPC Peering,Kubernets Clusters ,Word Press Deployment and connection with SQL Server)

- **Open console.cloud.google.com and create 2 Projects 'Production' and 'Development'**





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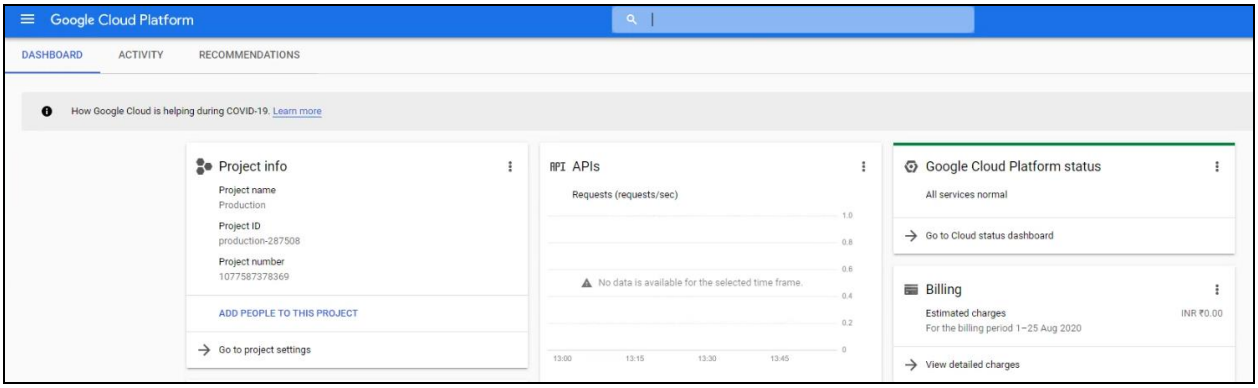

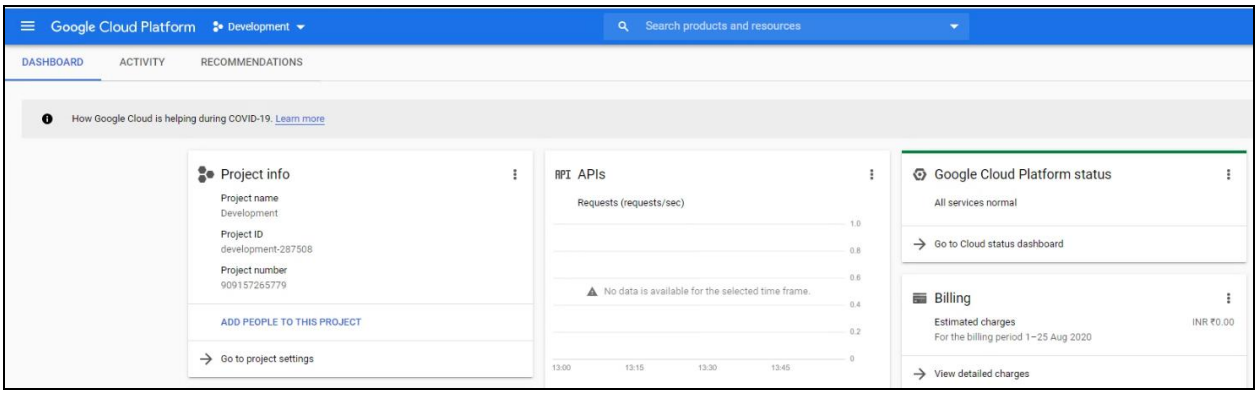

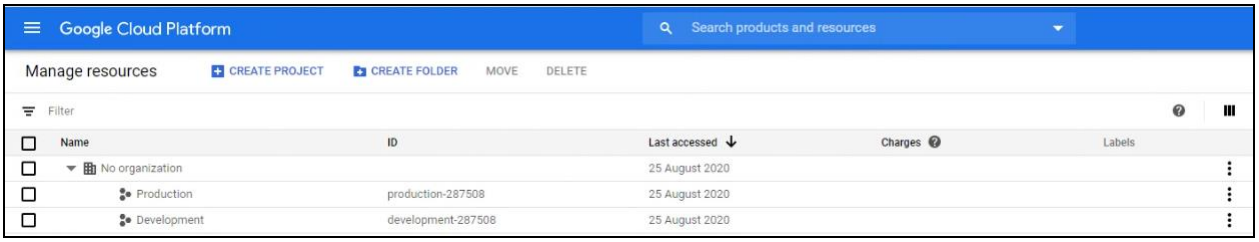

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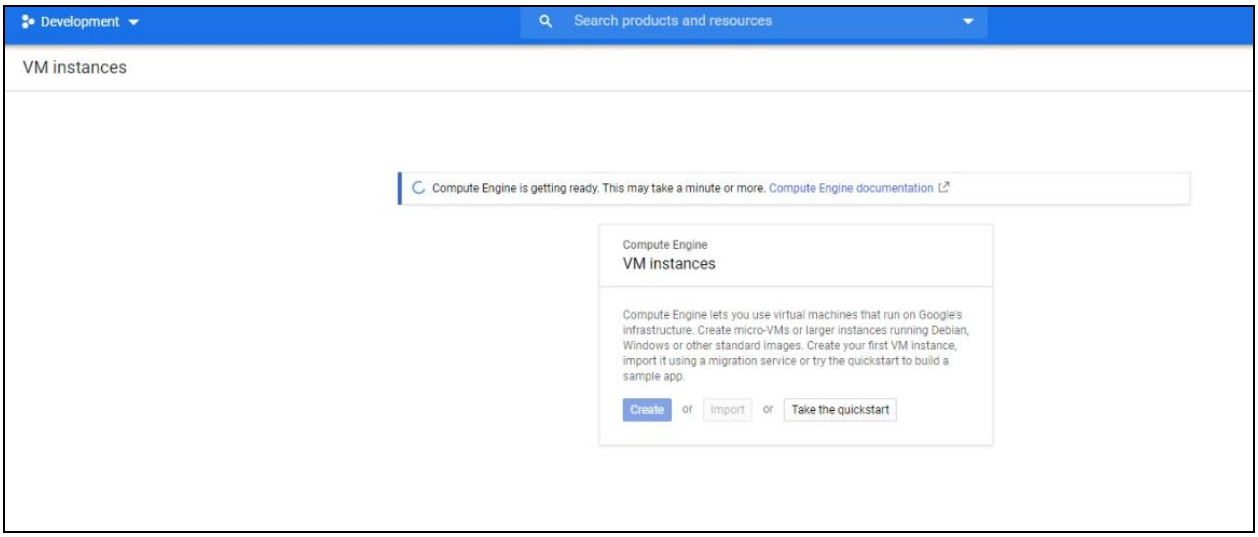
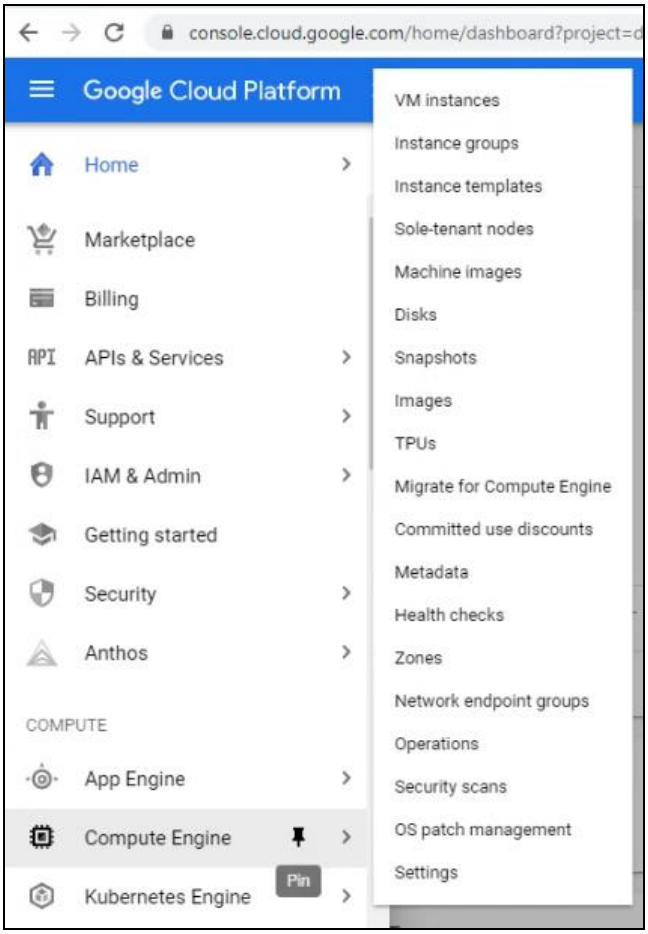
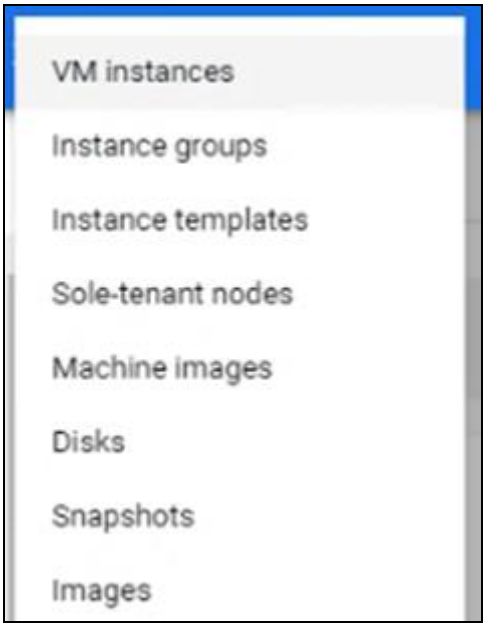
- **Create Instance for each project (Production and Development)**







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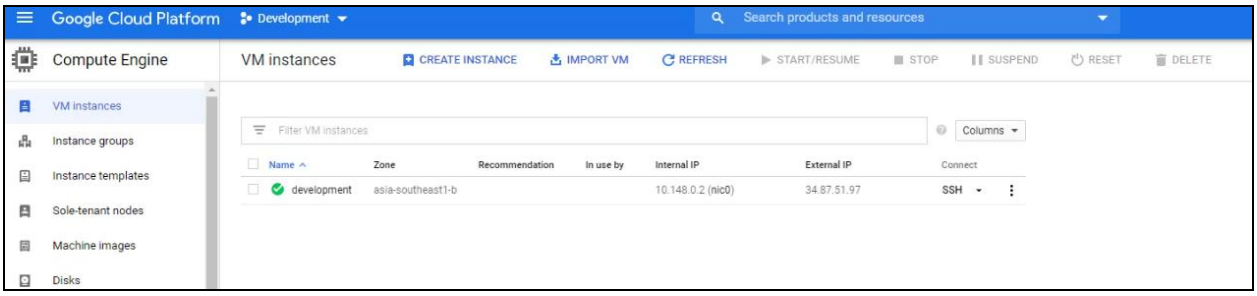
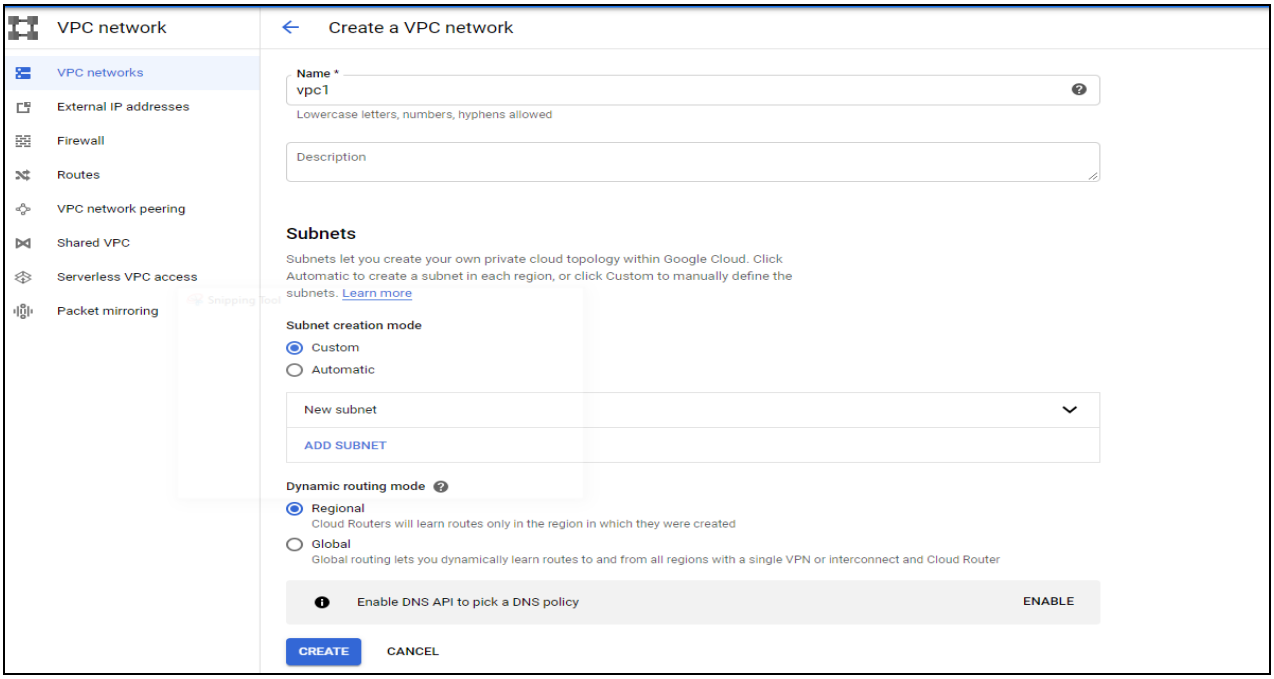


- **Create Customised VPC Network vpc1 for (Region Asia) and vpc2 production (Region US) respectively**



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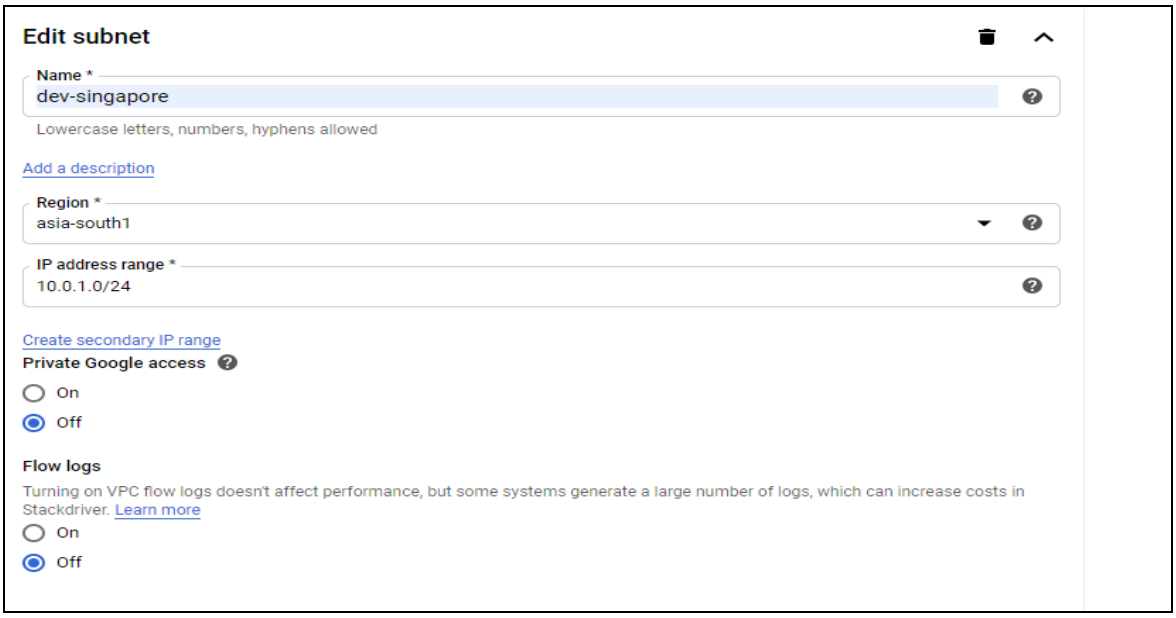

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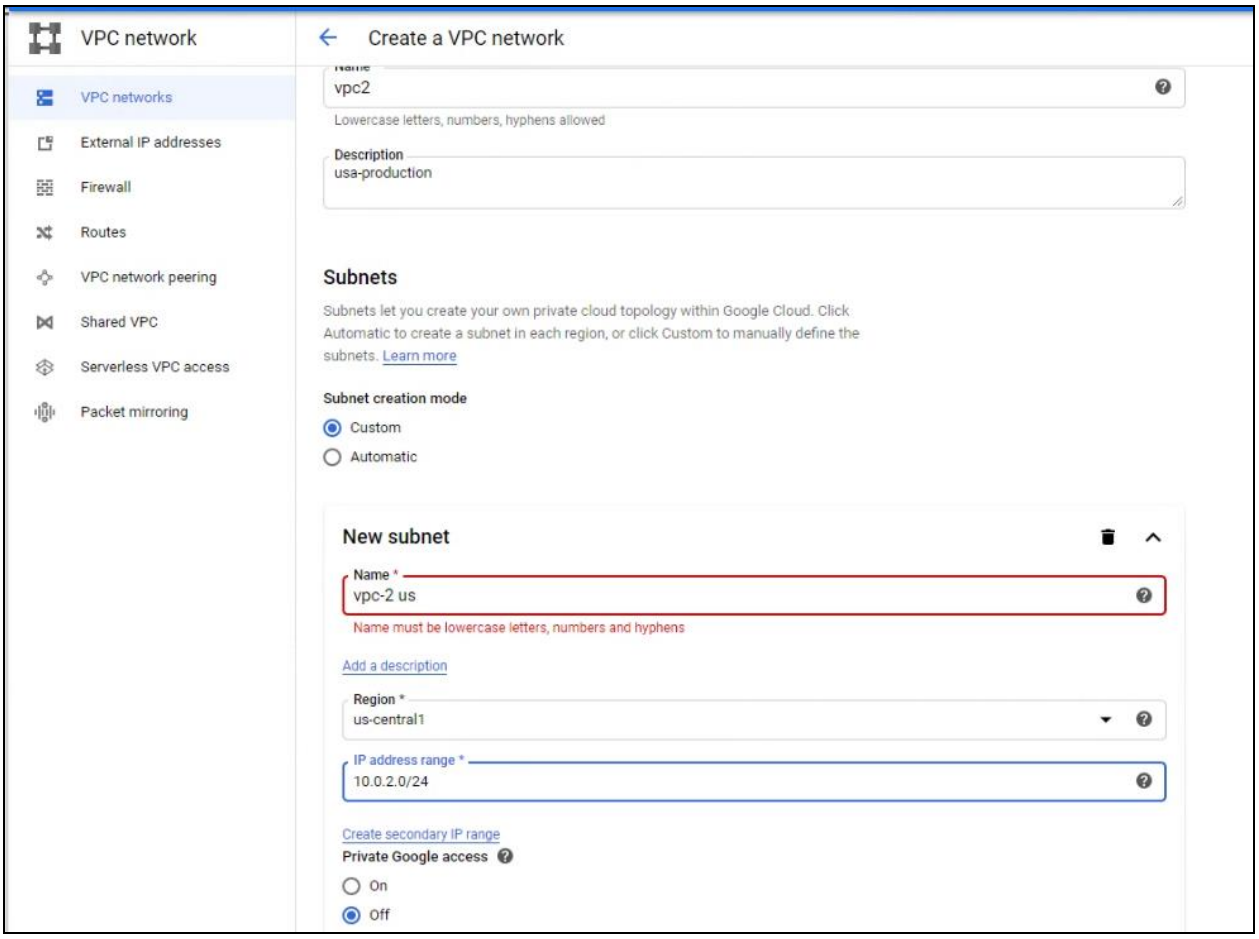

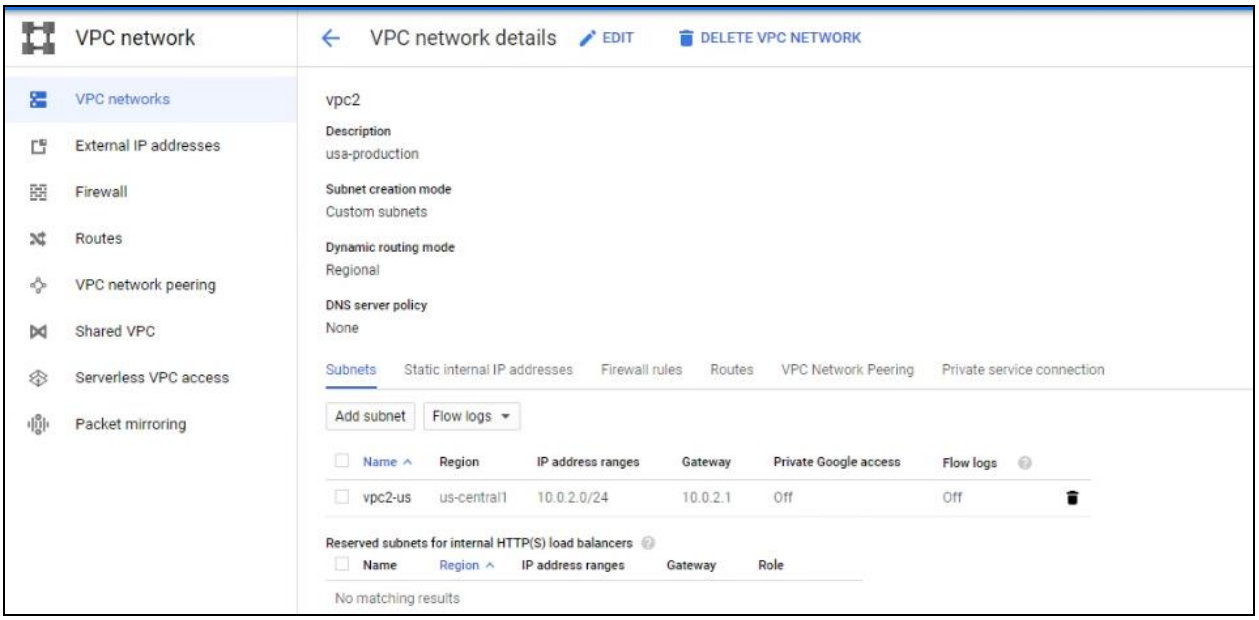

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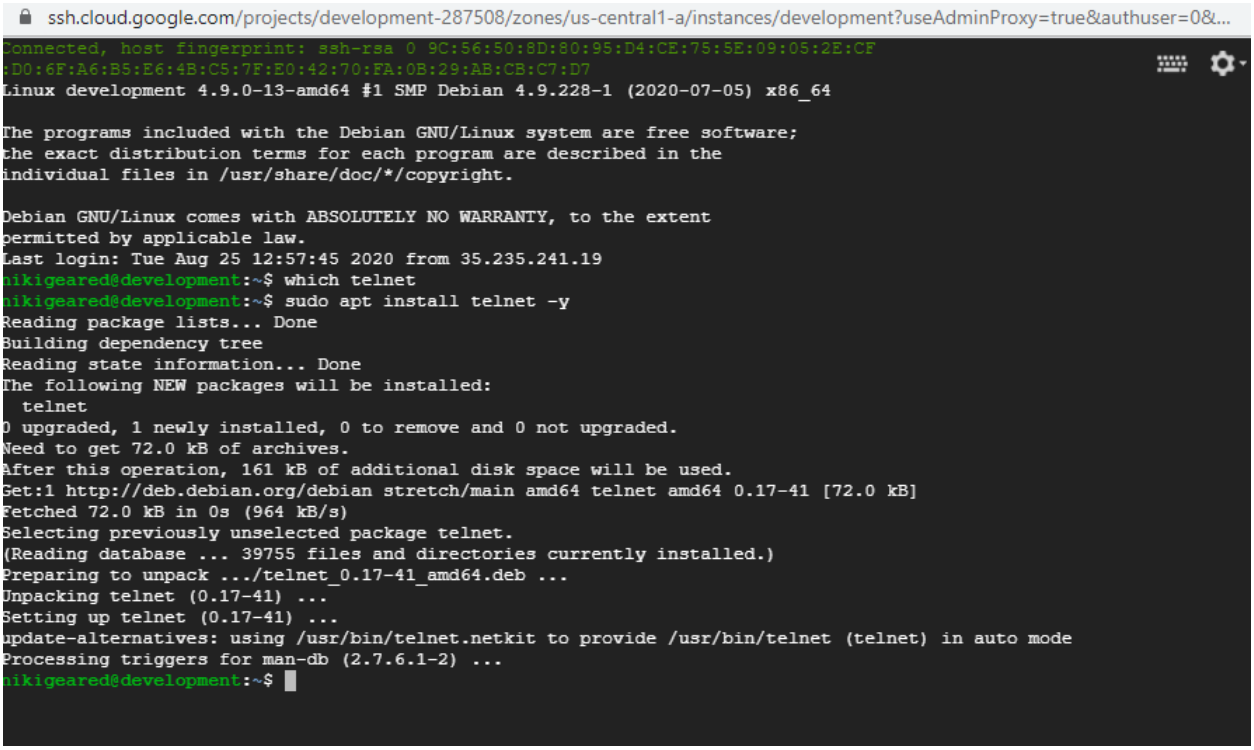

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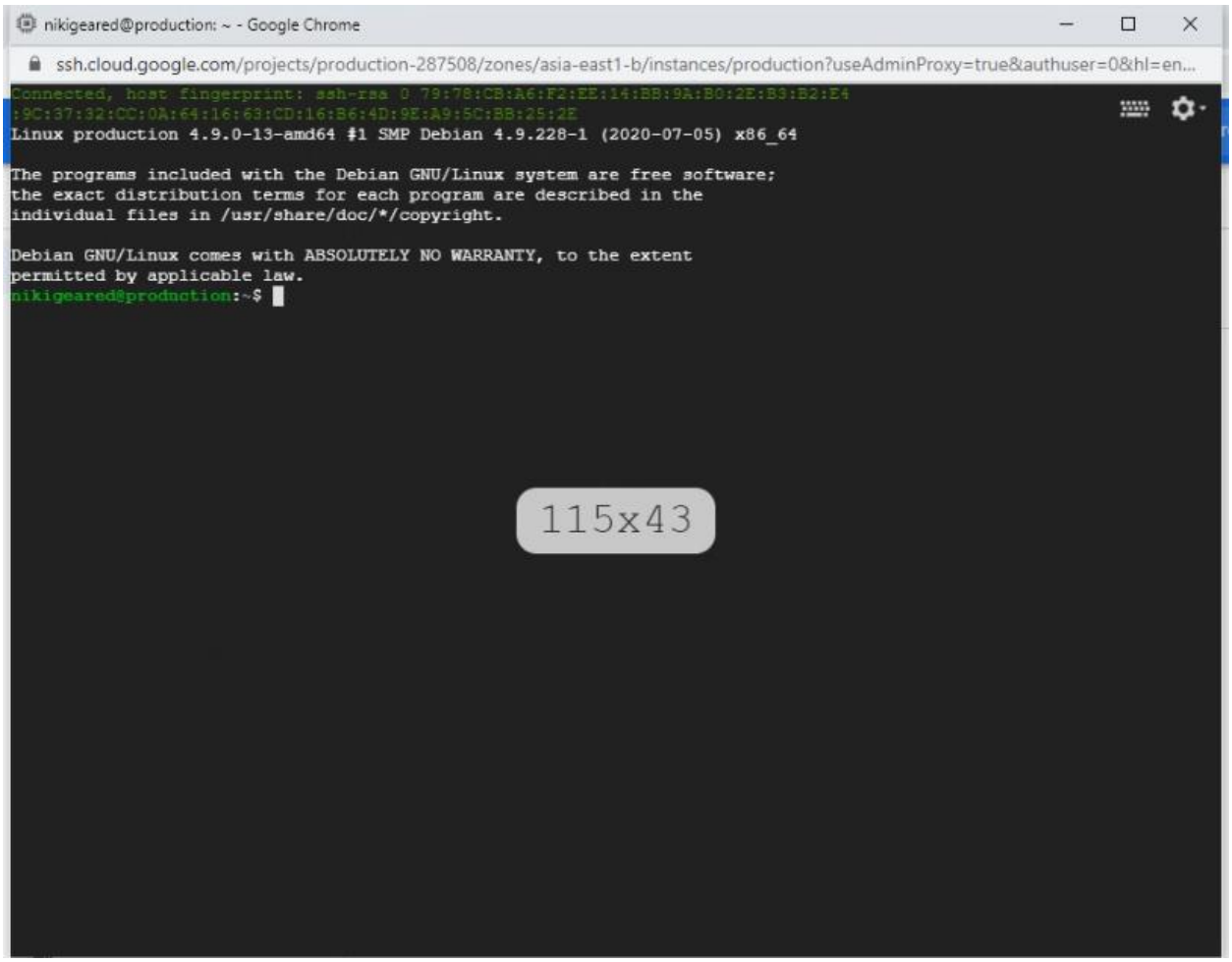

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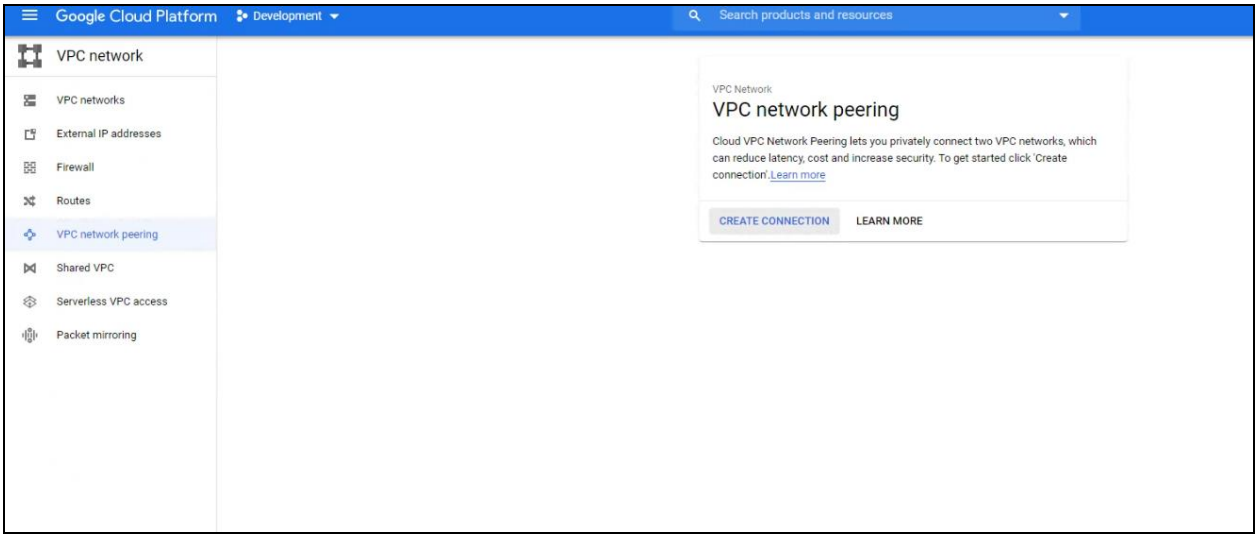
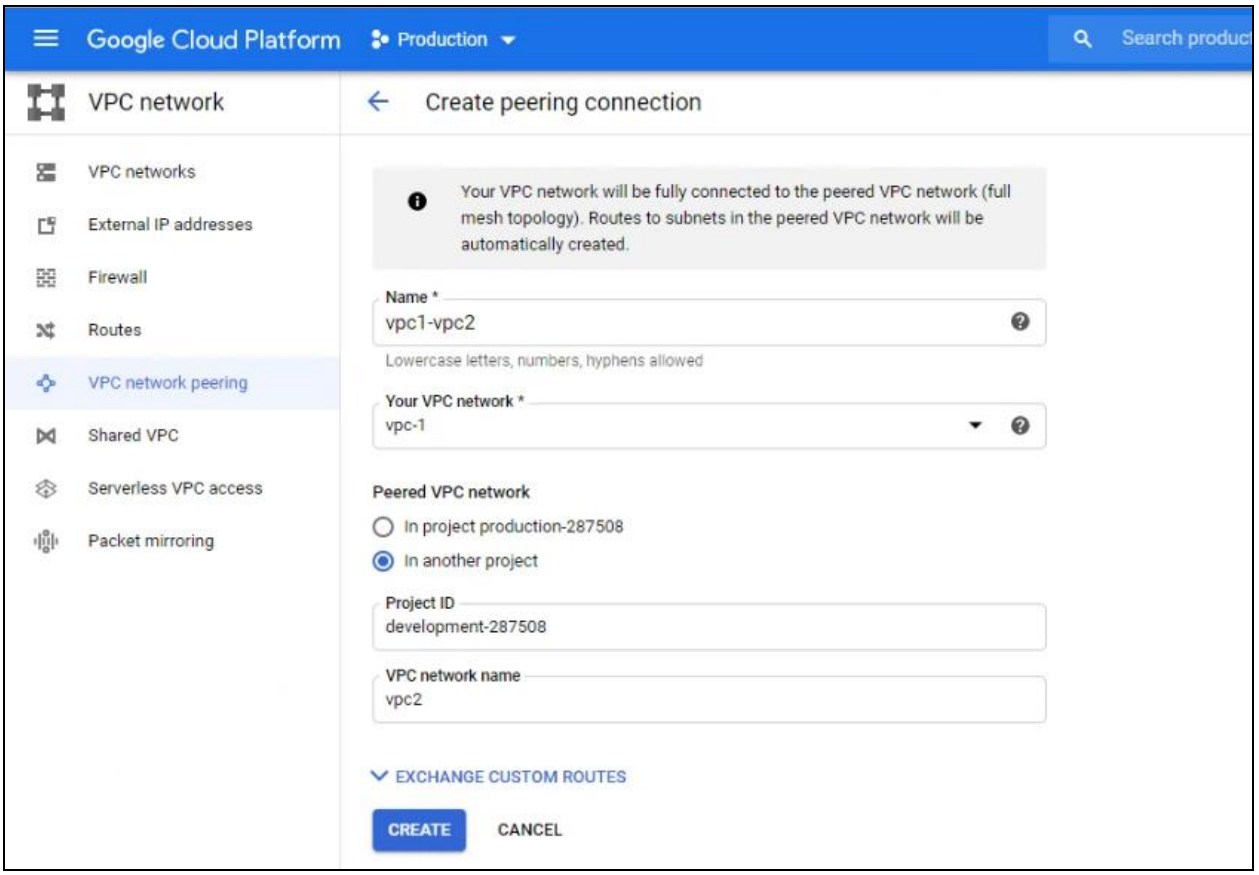
- **Establish VPC Peering**





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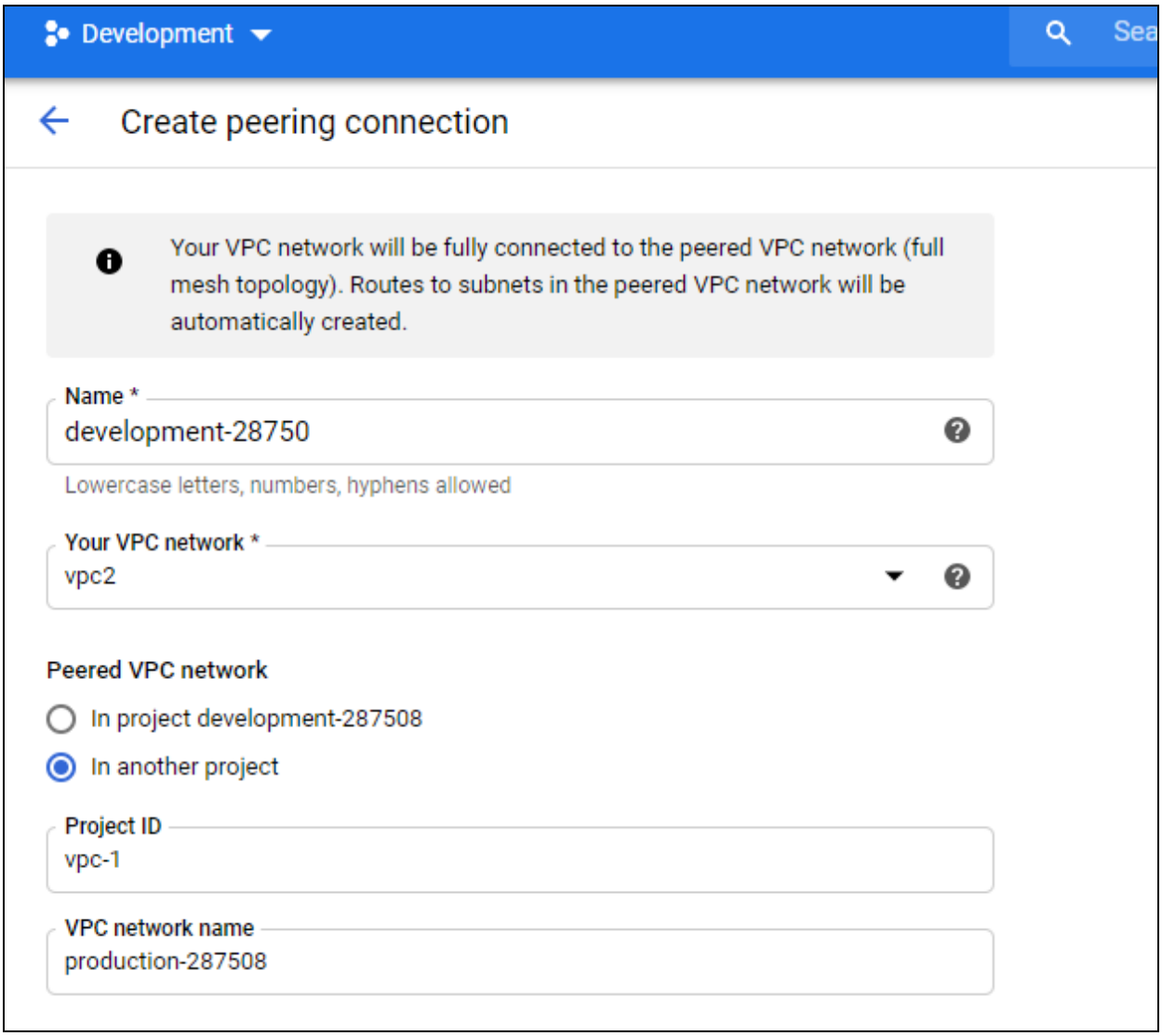

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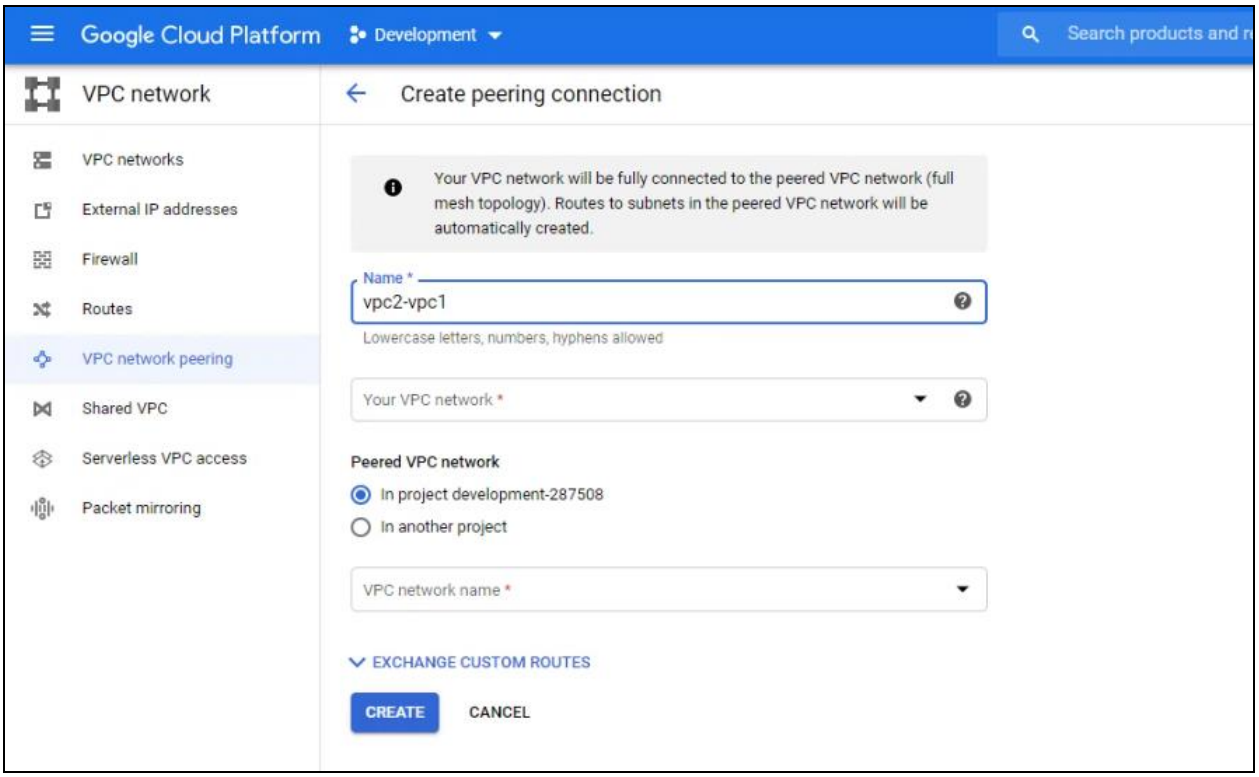

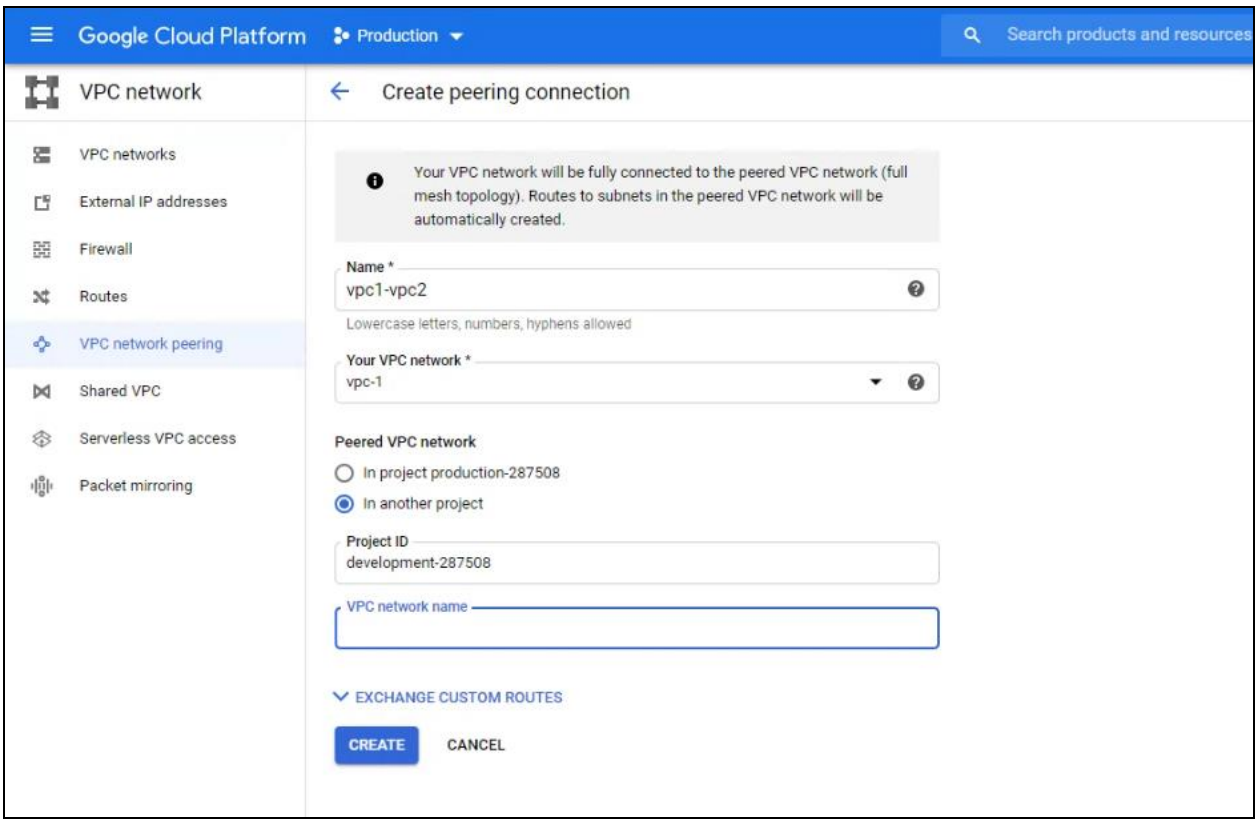

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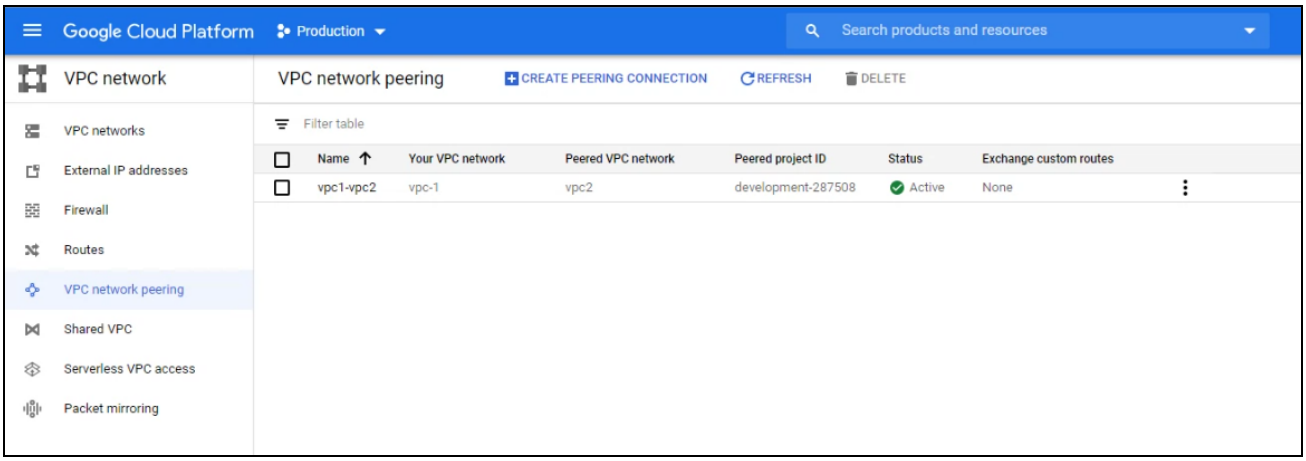

Install telnet for checking the connection

```
nikigeared@production:~$ which telnet
nikigeared@production:~$ sudo apt install telnet -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  telnet
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 72.0 kB of archives.
After this operation, 161 kB of additional disk space will be used.
Get:1 http://deb.debian.org/debian stretch/main amd64 telnet amd64 0.17-41 [72.0 kB]
Fetched 72.0 kB in 0s (795 kB/s)
Selecting previously unselected package telnet.
(Reading database ... 39755 files and directories currently installed.)
Preparing to unpack .../telnet_0.17-41_amd64.deb ...
Unpacking telnet (0.17-41) ...
Setting up telnet (0.17-41) ...
update-alternatives: using /usr/bin/telnet.netkit to provide /usr/bin/telnet (telnet) in auto mode
Processing triggers for man-db (2.7.6.1-2) ...
nikigeared@production:~$ telnet 10.0.2.2 24
```

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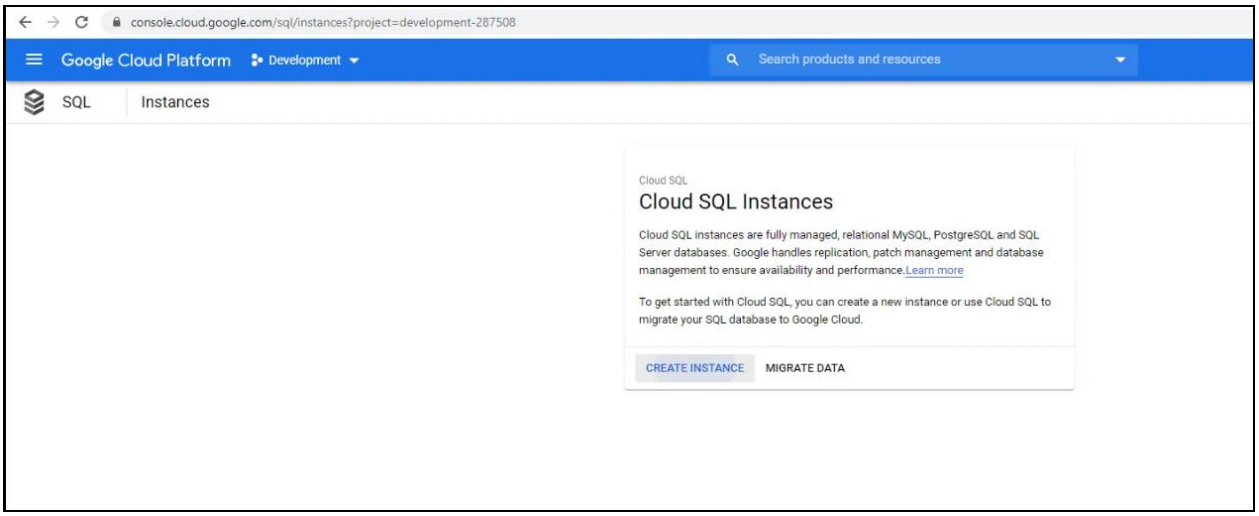
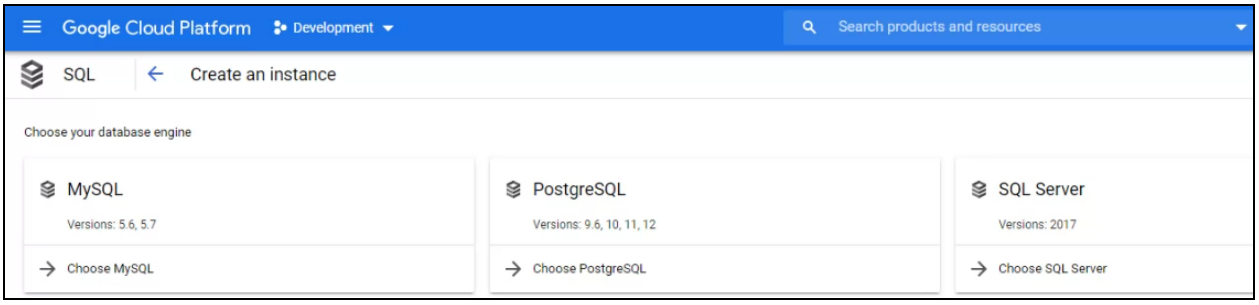
Install SQL instance on Development Project





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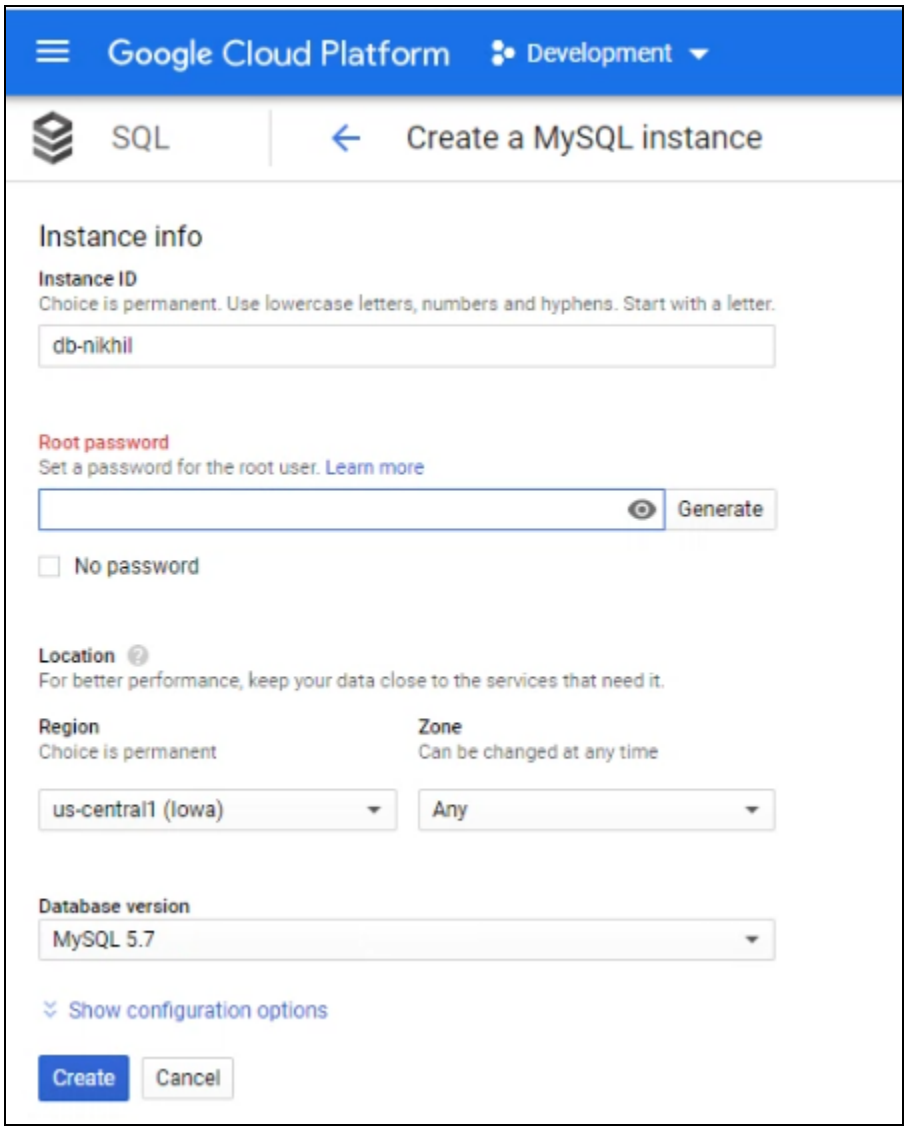

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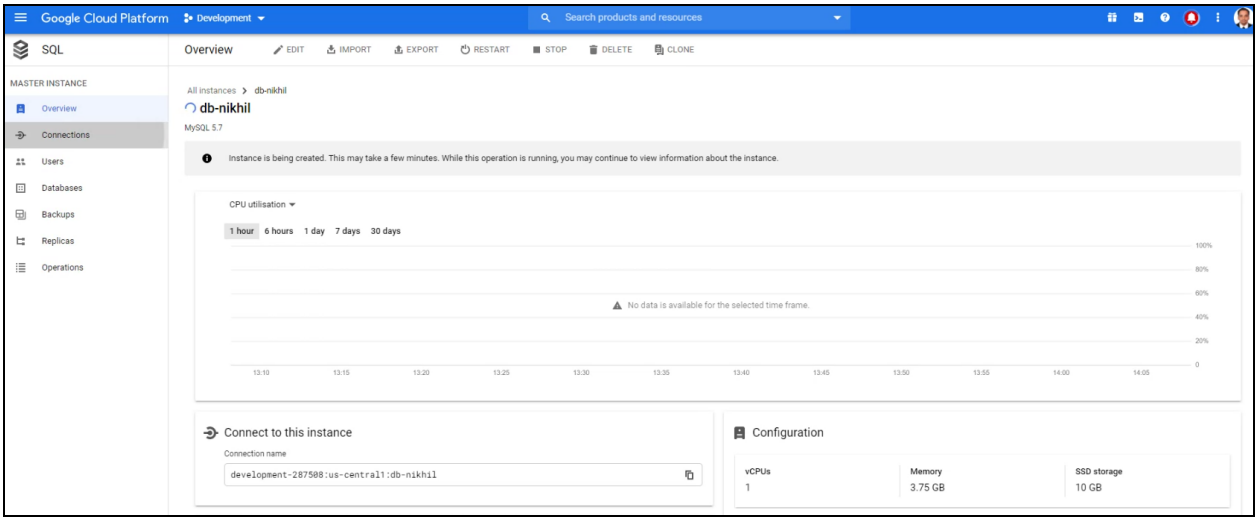

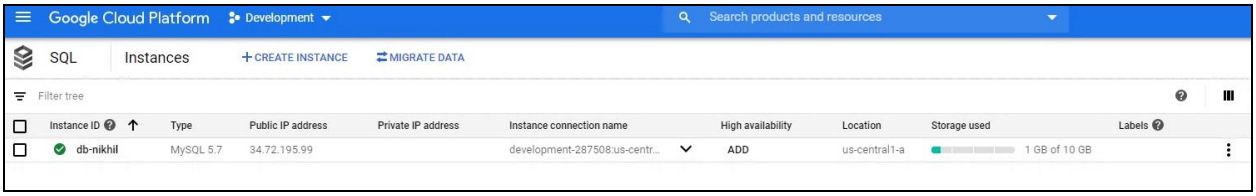

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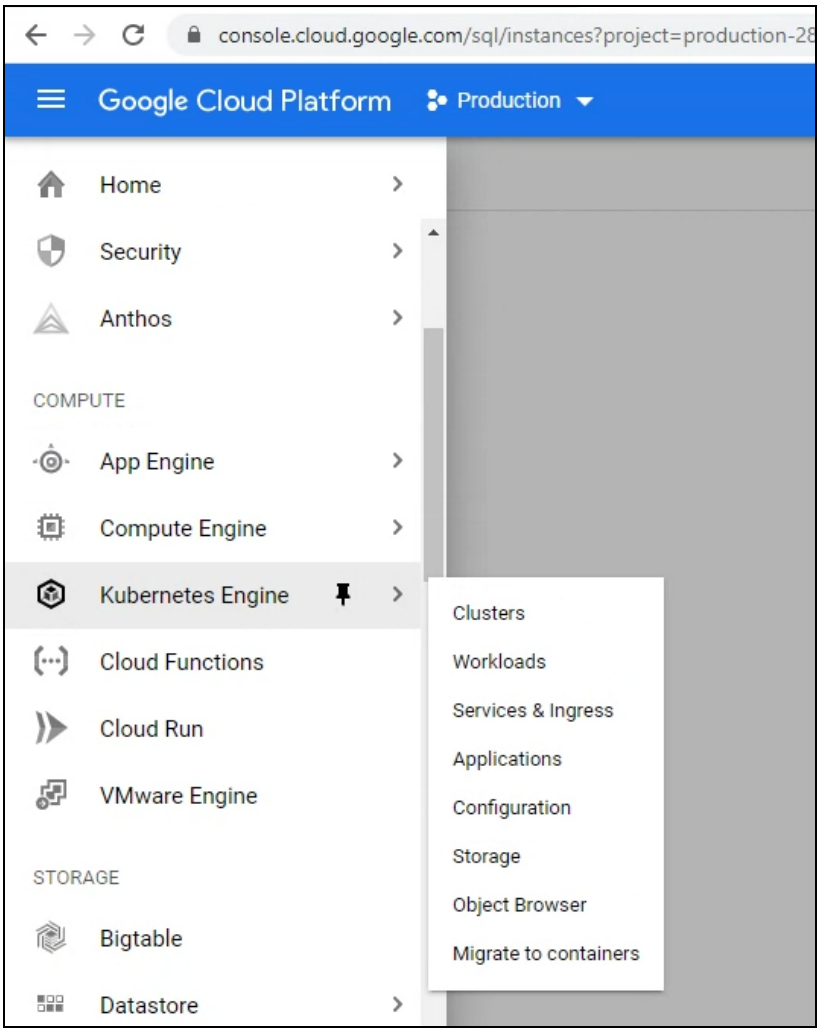

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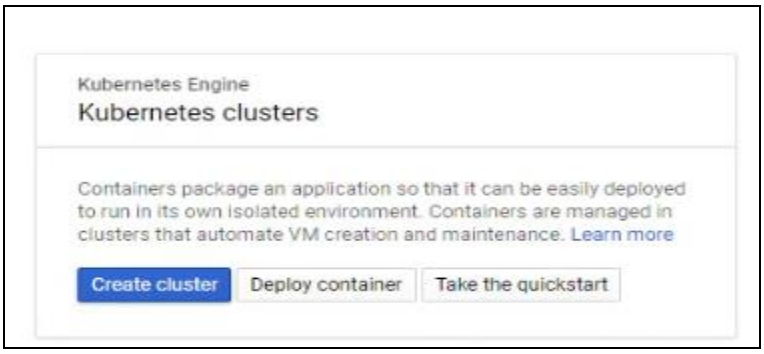

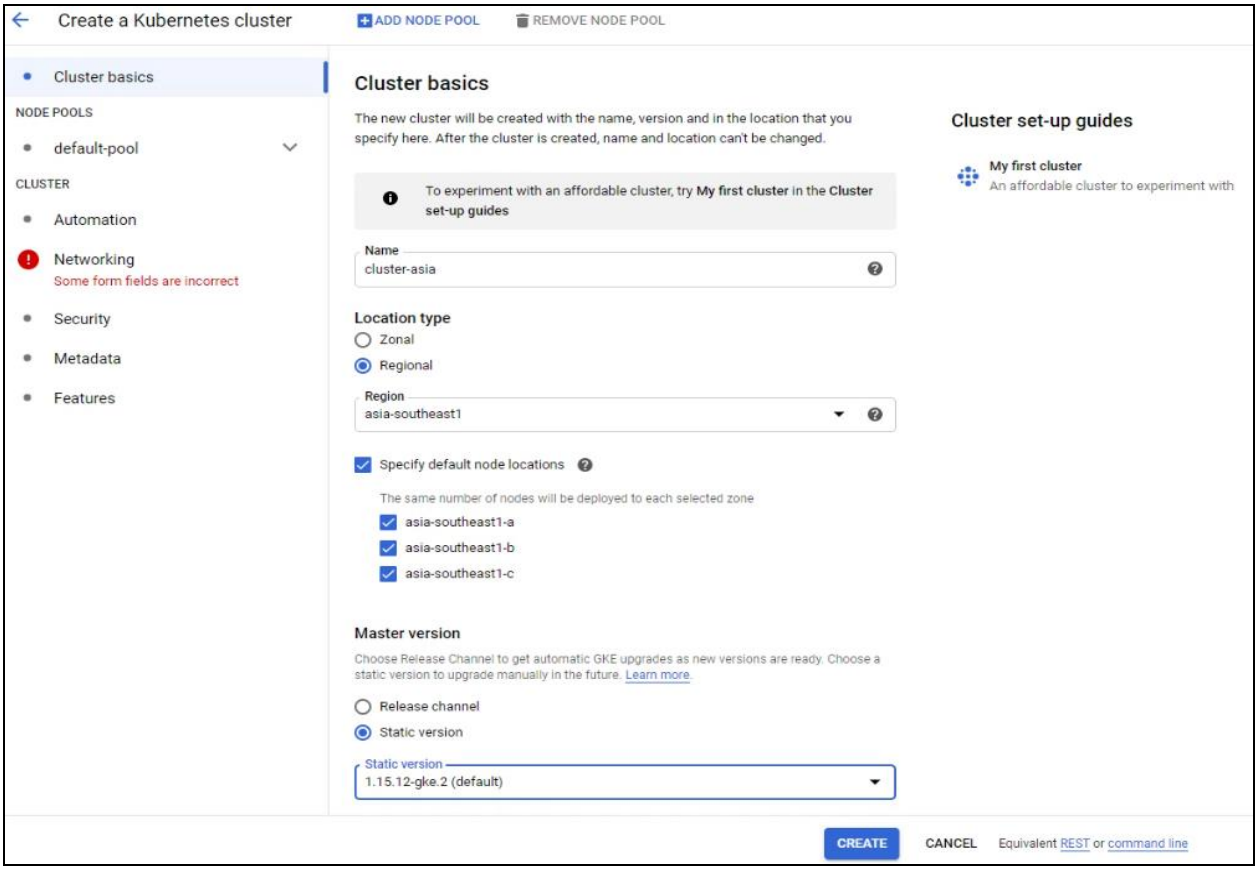

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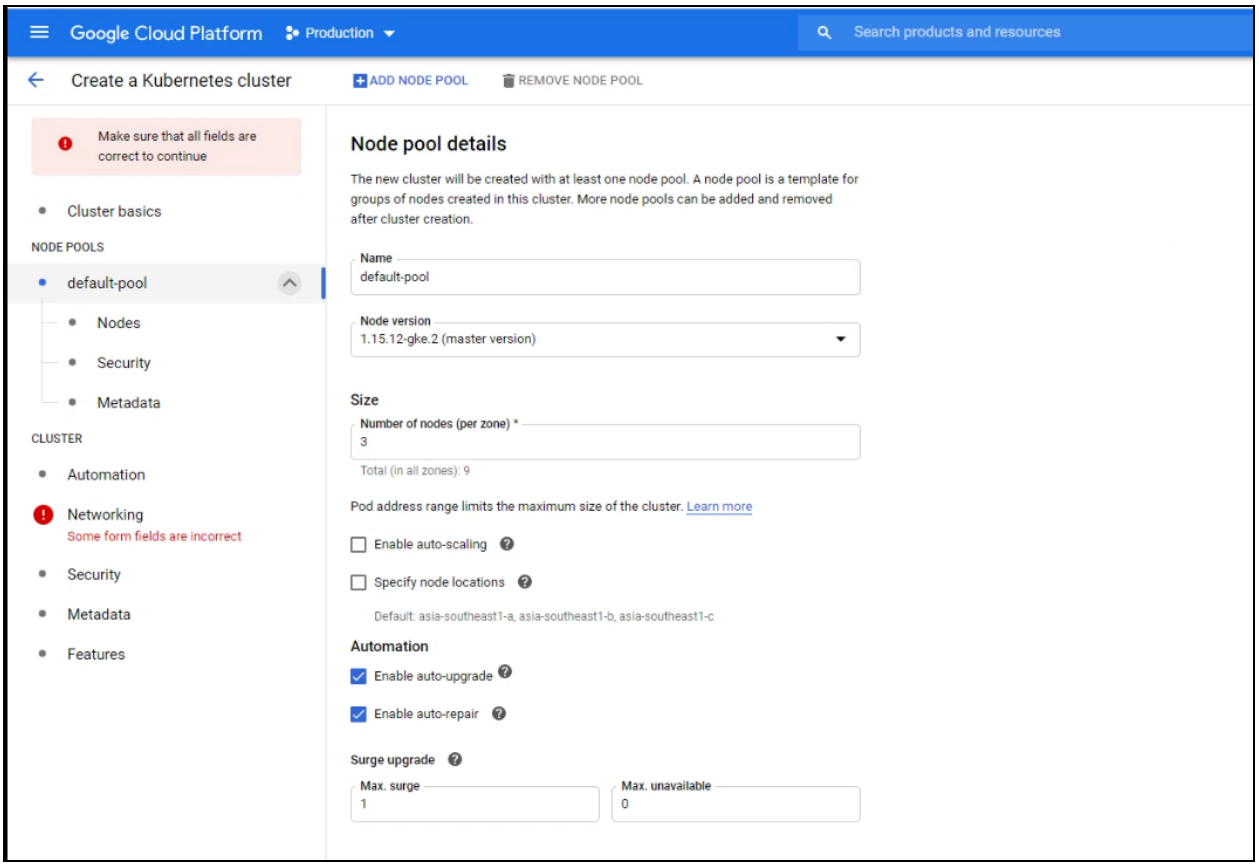

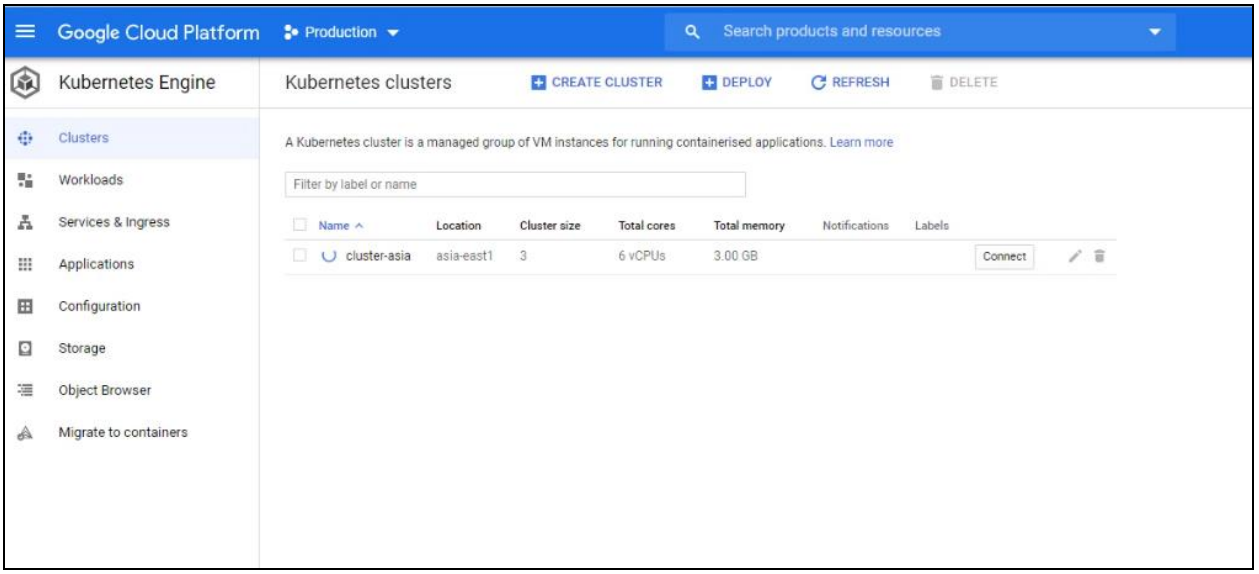

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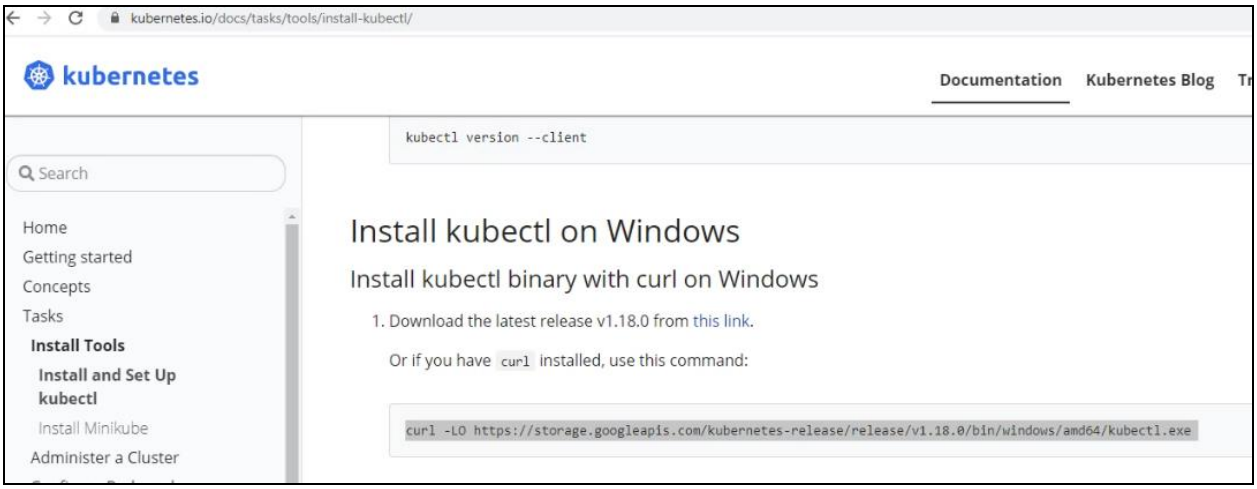
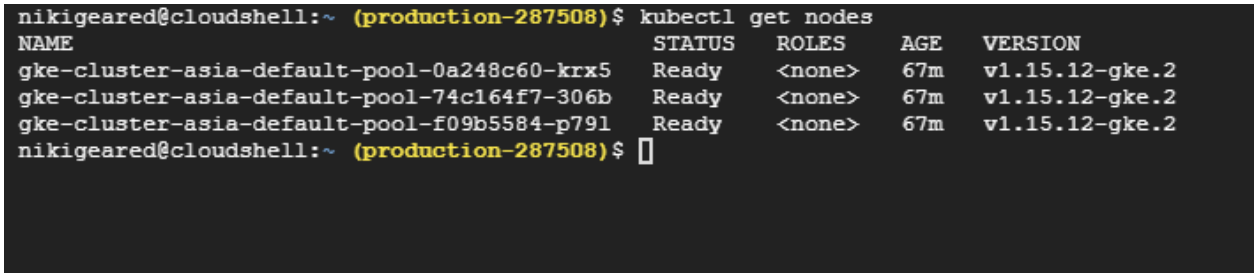
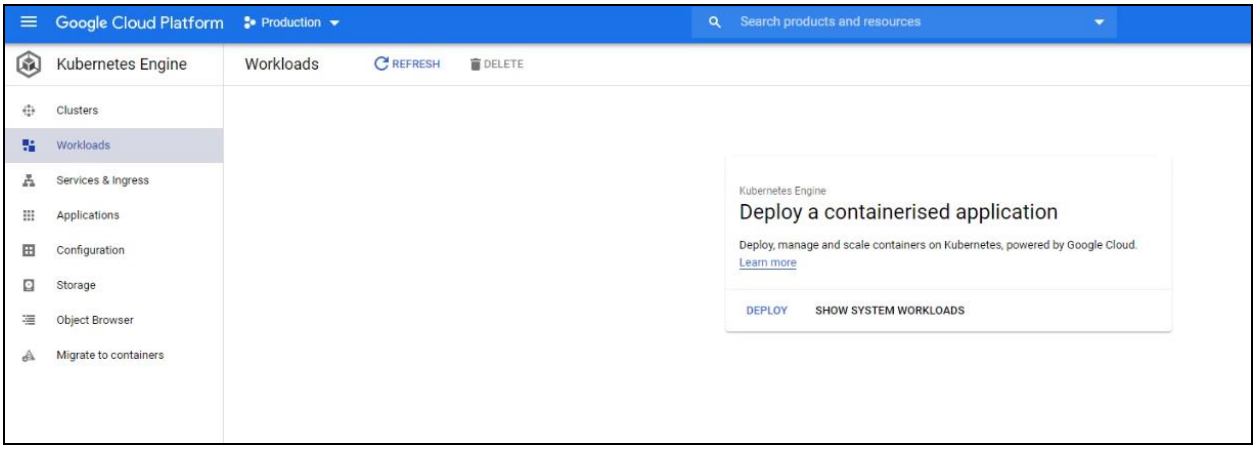


By executing code 'kubectl get nodes' it will display all running clusters and nodes as shown below





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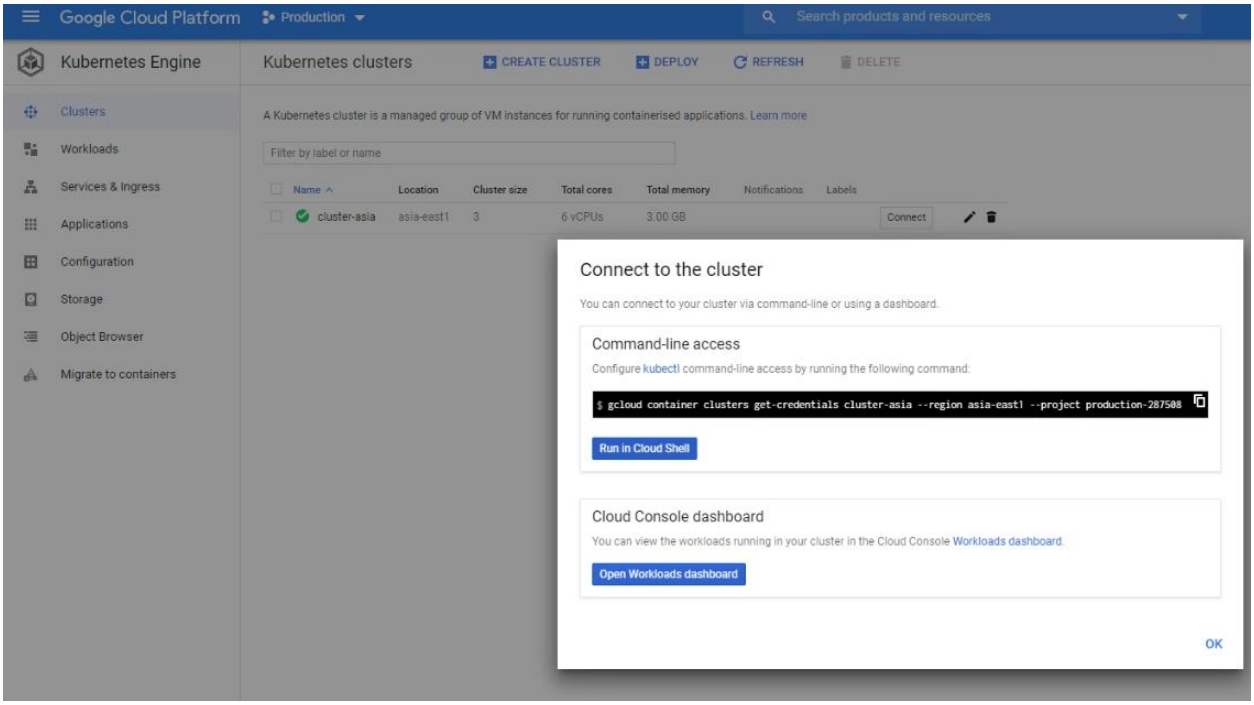

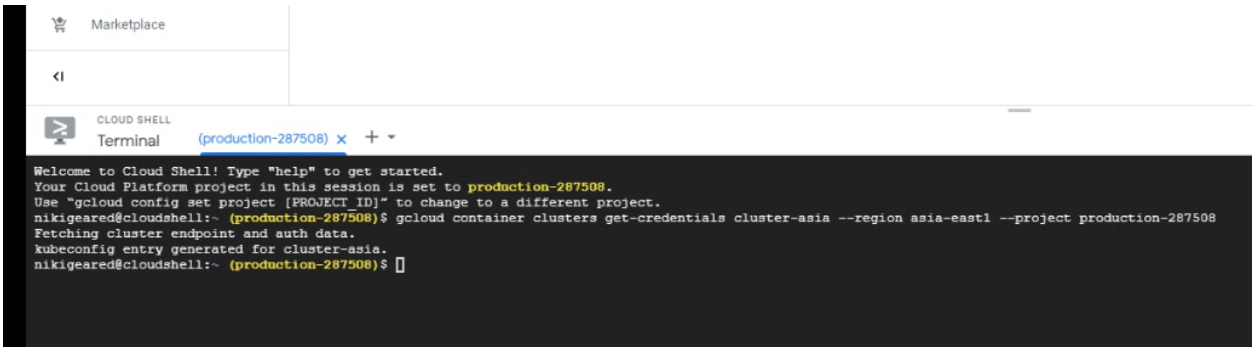

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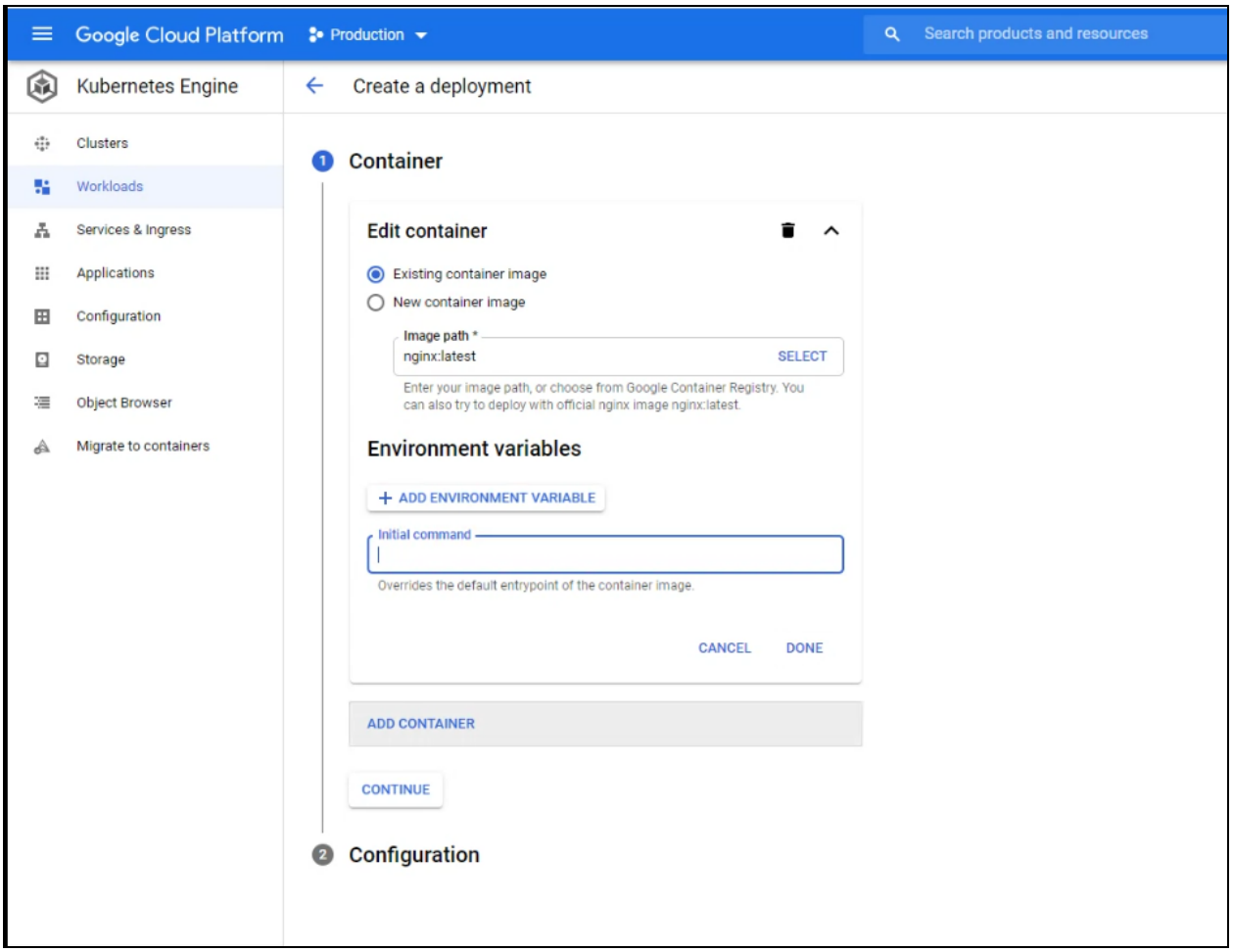

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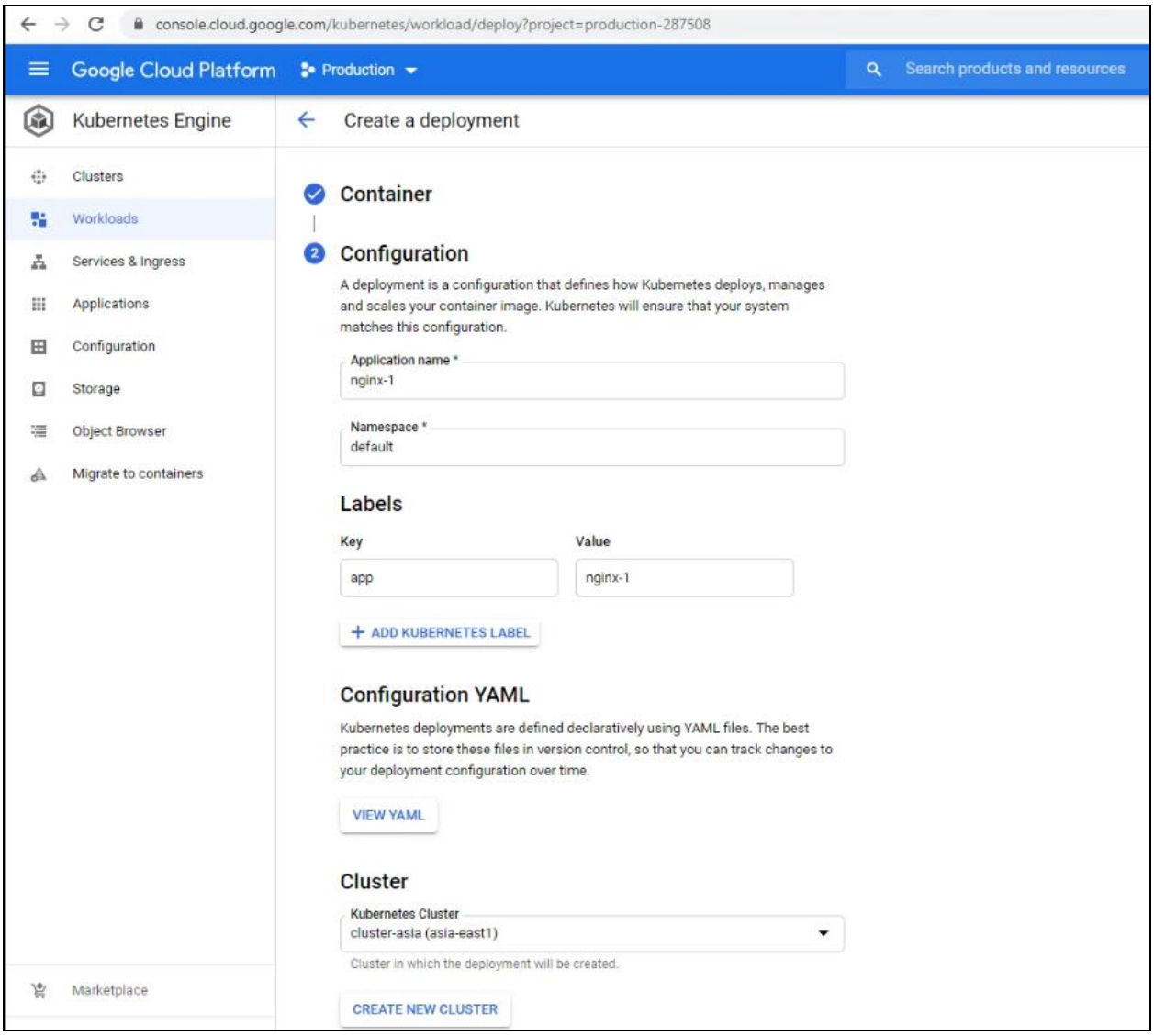

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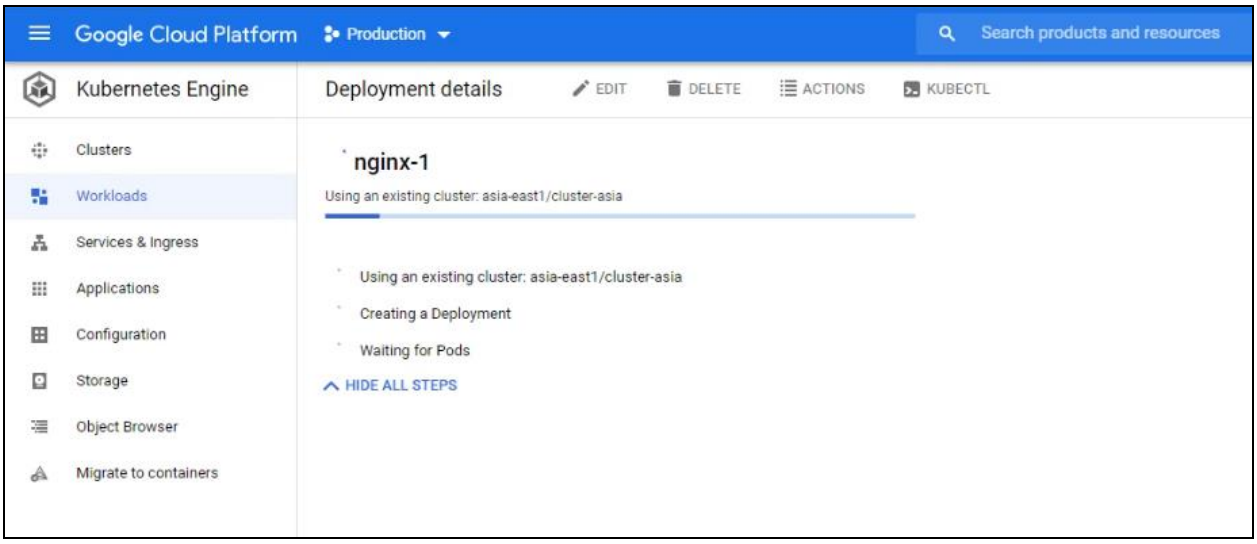

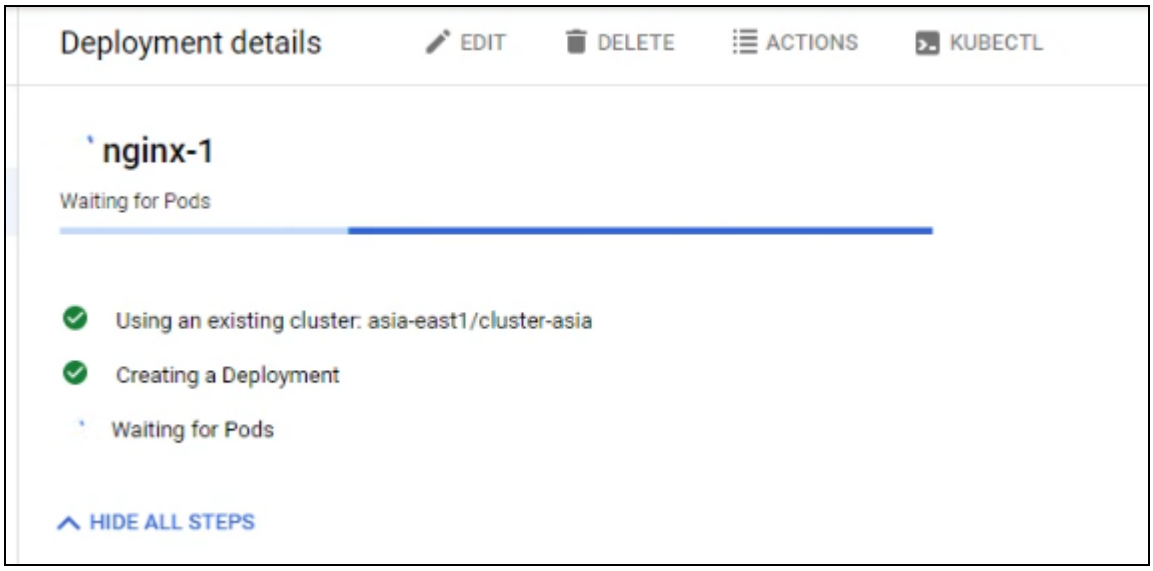

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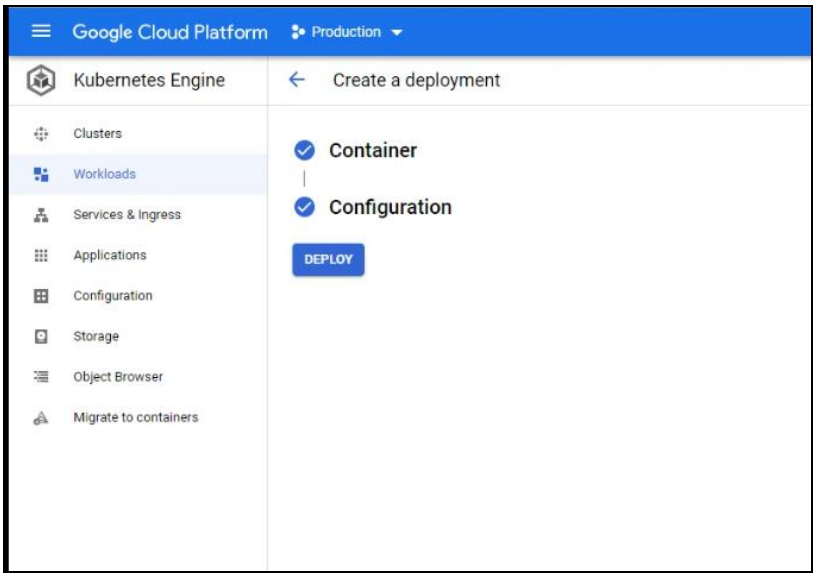

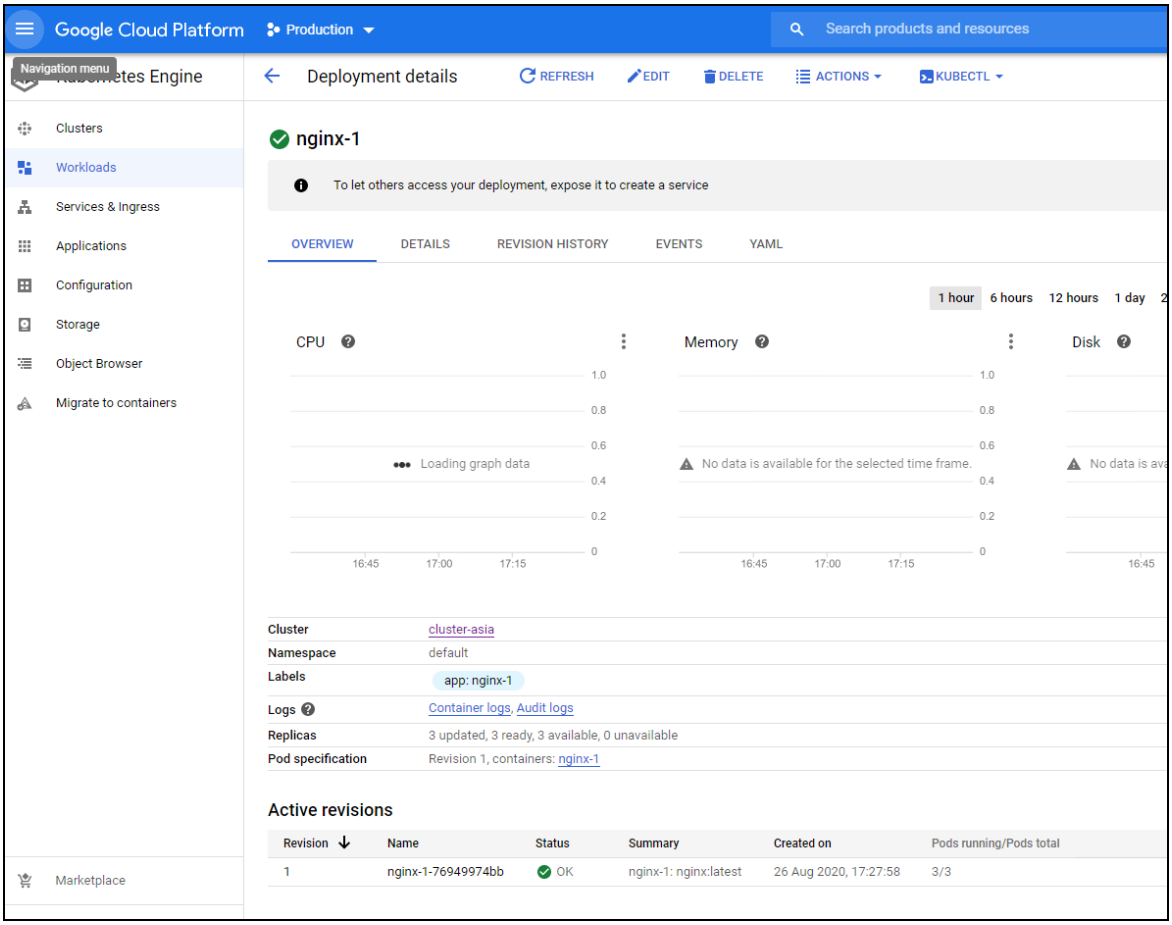

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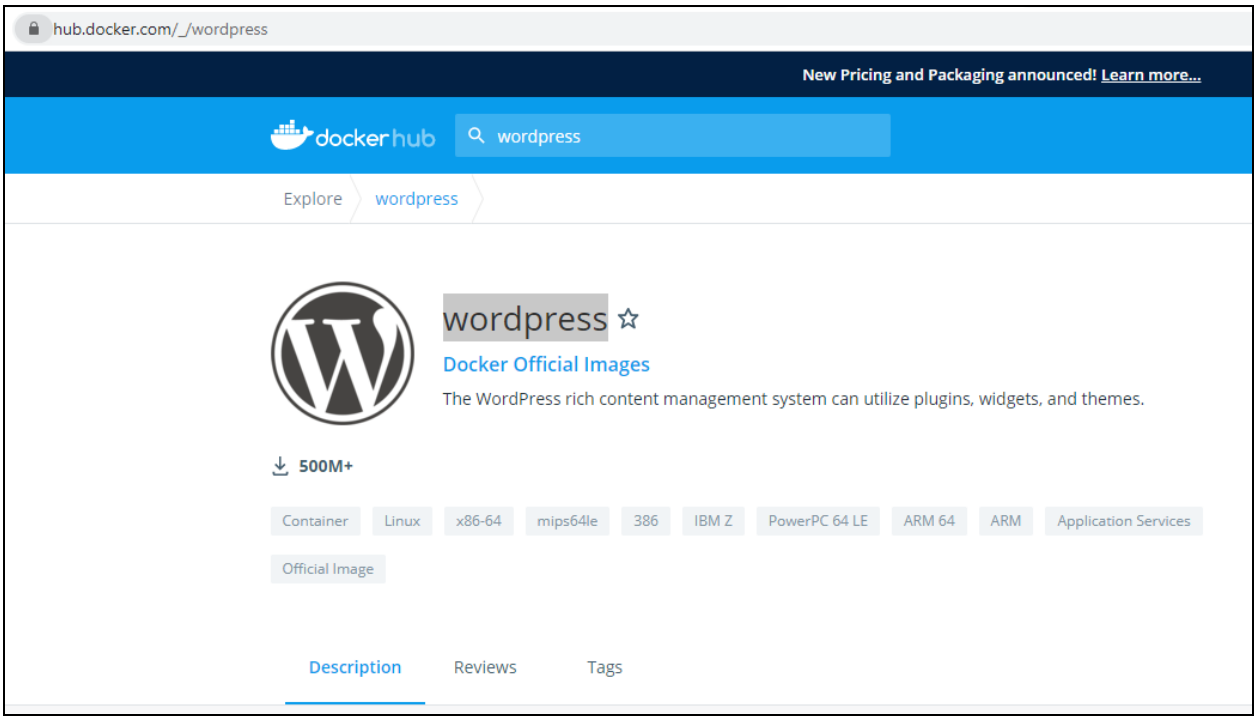
Type ‘kubectl get pods’ for getting number of running pods total

```
nikigeared@cloudshell:~ (production-287508)$ kubectl get node
NAME                                          STATUS   ROLES    AGE    VERSION
gke-cluster-asia-default-pool-0a248c60-krx5   Ready    <none>   153m   v1.15.12-gke.2
gke-cluster-asia-default-pool-74c164f7-306b   Ready    <none>   153m   v1.15.12-gke.2
gke-cluster-asia-default-pool-f09b5584-p791   Ready    <none>   153m   v1.15.12-gke.2
nikigeared@cloudshell:~ (production-287508)$ kubectl get pods
NAME                       READY   STATUS    RESTARTS   AGE
nginx-1-76949974bb-44h6f   1/1     Running   0          4m24s
nginx-1-76949974bb-c6k9r   1/1     Running   0          4m24s
nginx-1-76949974bb-vxqrm   1/1     Running   0          4m24s
nikigeared@cloudshell:~ (production-287508)$
```

Find Docker image of wordpress on ‘hub.docker.com’ website



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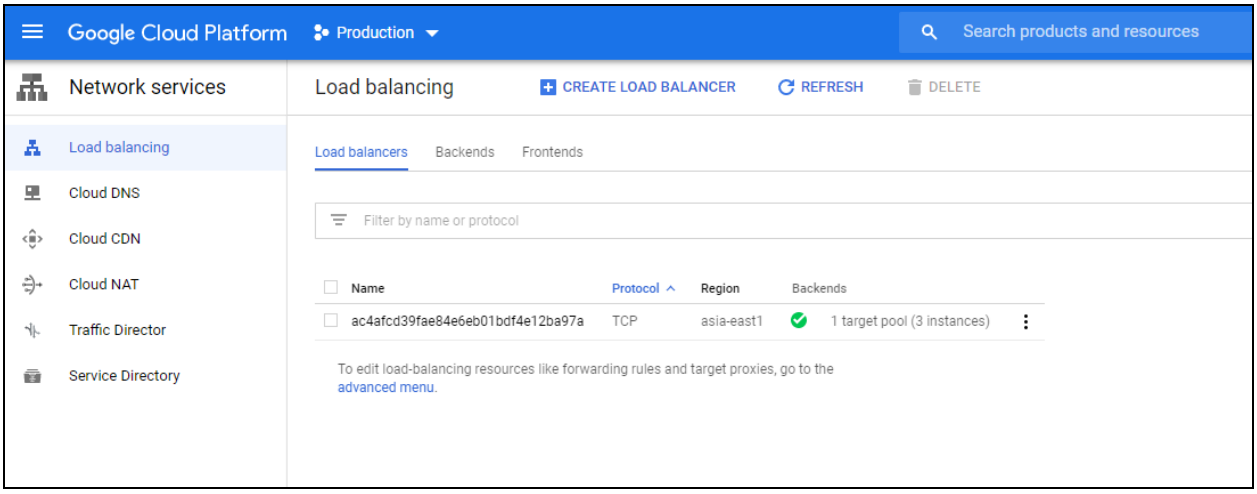
In commandline **'kubectl create deployment mywp –image=wordpress** ' wordpress wil; be install on pods

```
nikigeared@cloudshell:~ (production-287508)$ kubectl get node
NAME                                          STATUS   ROLES    AGE    VERSION
gke-cluster-asia-default-pool-0a248c60-krx5   Ready    <none>   153m   v1.15.12-gke.2
gke-cluster-asia-default-pool-74c164f7-306b   Ready    <none>   153m   v1.15.12-gke.2
gke-cluster-asia-default-pool-f09b5584-p791   Ready    <none>   153m   v1.15.12-gke.2
nikigeared@cloudshell:~ (production-287508)$ kubectl get pods
NAME                     READY   STATUS    RESTARTS   AGE
nginx-1-76949974bb-44h6f   1/1     Running   0          4m24s
nginx-1-76949974bb-c6k9r   1/1     Running   0          4m24s
nginx-1-76949974bb-vxqrm   1/1     Running   0          4m24s
nikigeared@cloudshell:~ (production-287508)$ kubectl get pods -o wide
NAME                     READY   STATUS    RESTARTS   AGE    IP         NODE                                          NOMINATED NODE   READINESS GATES
nginx-1-76949974bb-vxqrm   1/1     Running   0          6m5s   10.8.1.5   gke-cluster-asia-default-pool-74c164f7-306b   <none>           <none>
nikigeared@cloudshell:~ (production-287508)$ kubectl create deployment  mywp  --image=wordpress
deployment.apps/mywp created
nikigeared@cloudshell:~ (production-287508)$
```

Note: Kubectl scale deployment my wp --replicas=5 (Gives Scalability)

```
nikigeared@cloudshell:~ (production-287508)$ kubectl expose deploy mywp --type=LoadBalancer --port=80
service/mywp exposed
nikigeared@cloudshell:~ (production-287508)$
```




```
nikigeared@cloudshell:~ (production-287508)$ kubectl get deploy
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
mywp      1/1     1            1           16m
nginx-1   1/1     1            1           30m
nikigeared@cloudshell:~ (production-287508)$ kubectl get services
NAME         TYPE           CLUSTER-IP      EXTERNAL-IP     PORT(S)        AGE
kubernetes   ClusterIP      10.137.0.1      <none>          443/TCP        3h2m
mywp         LoadBalancer   10.137.13.238   35.236.132.26   80:31292/TCP   4m51s
nikigeared@cloudshell:~ (production-287508)$
```

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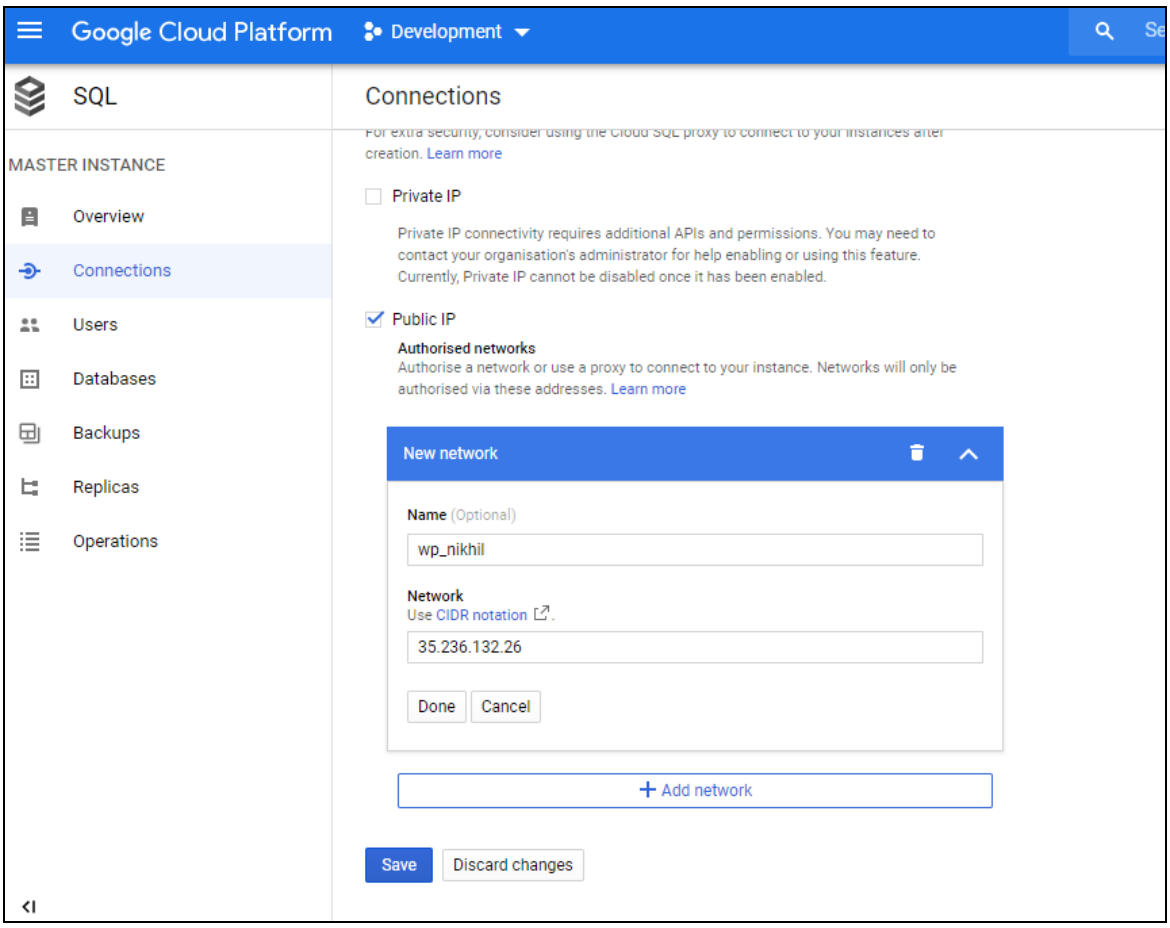
```
nikigeared@cloudshell:~ (production-287508)$ kubectl get deploy
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
mywp      1/1     1            1           16m
nginx-1   1/1     1            1           30m
nikigeared@cloudshell:~ (production-287508)$ kubectl get services
NAME         TYPE           CLUSTER-IP      EXTERNAL-IP      PORT(S)        AGE
kubernetes   ClusterIP      10.137.0.1      <none>           443/TCP        3h2m
mywp         LoadBalancer   10.137.13.238   35.236.132.26    80:31292/TCP   4m51s
nikigeared@cloudshell:~ (production-287508)$
```

Here notedown the the ‘loadbalancer’ ip and connect to the SQL located in the different region



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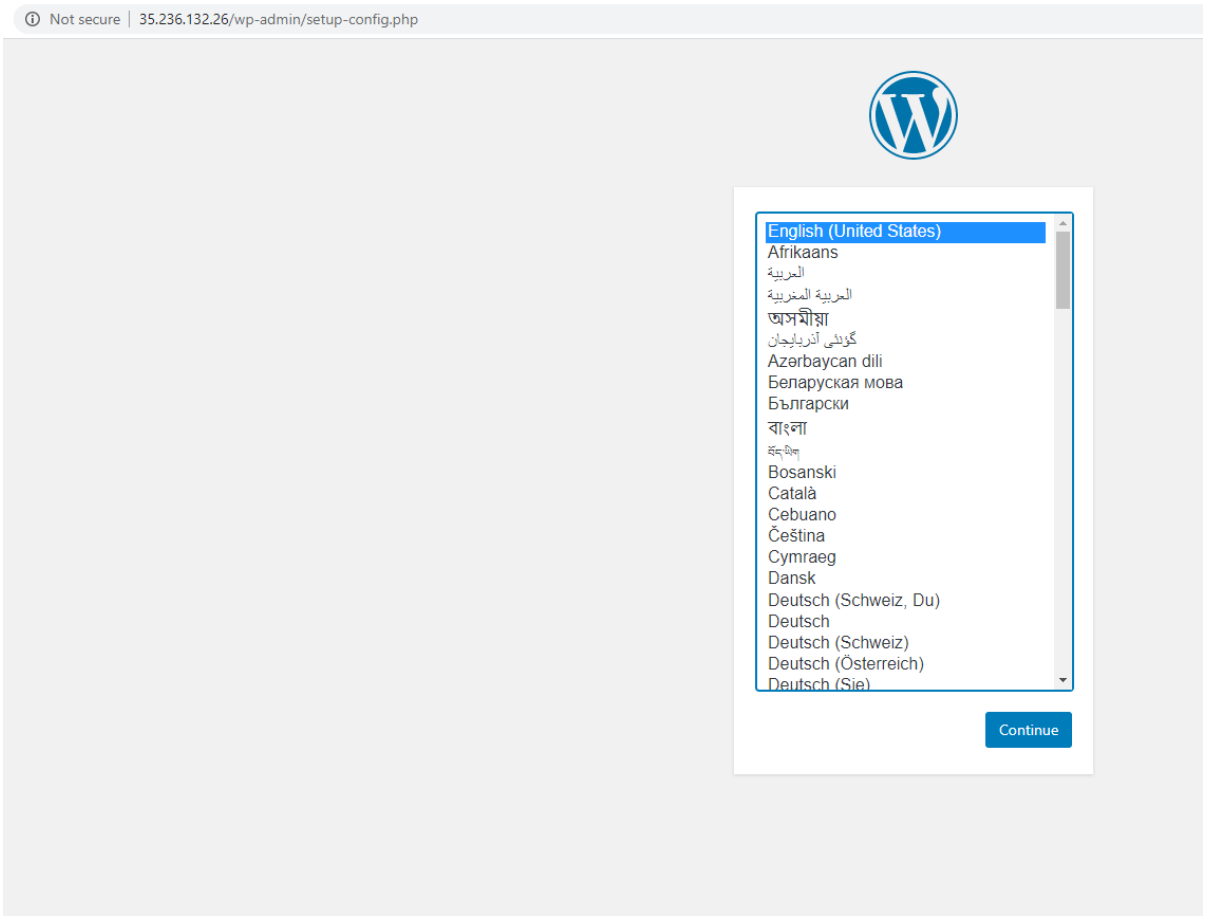

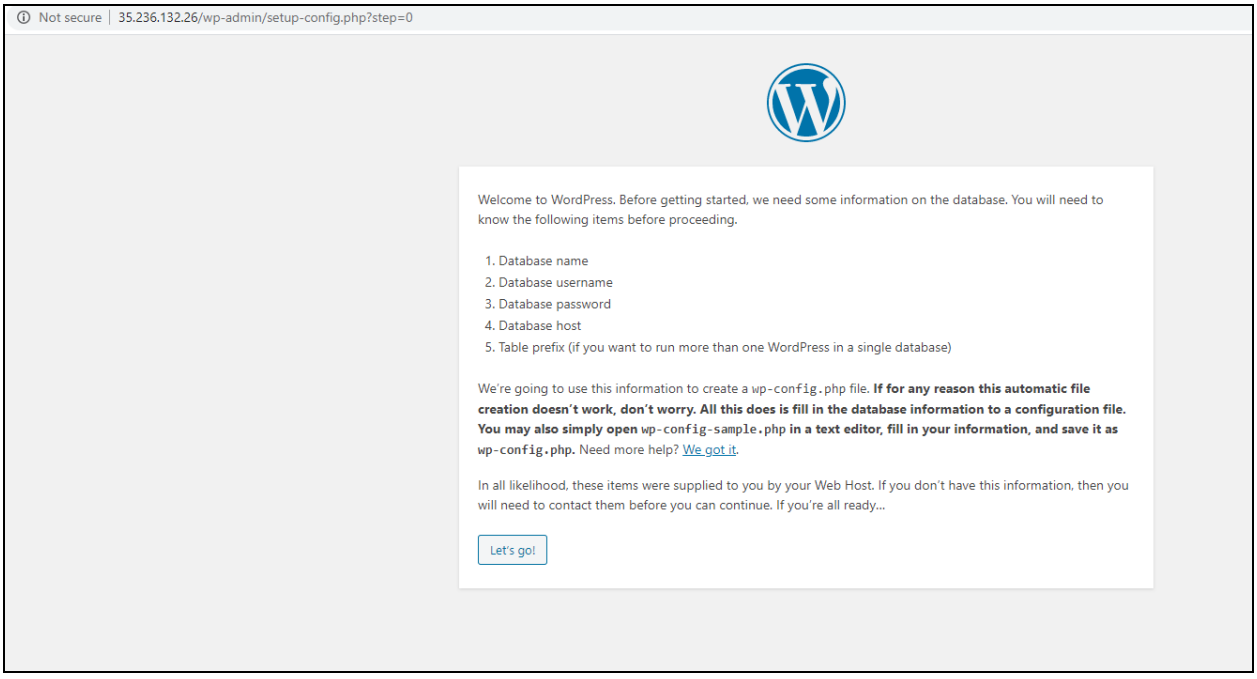

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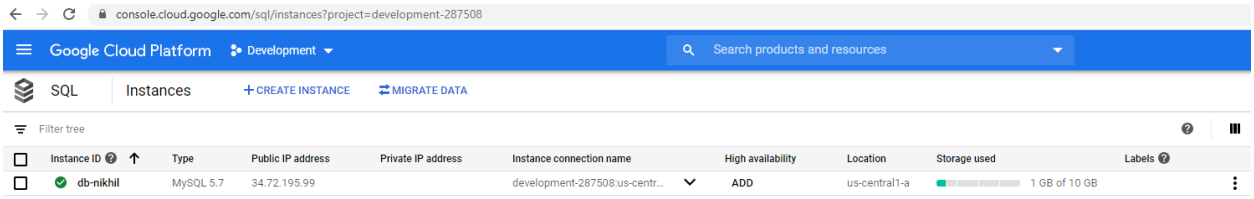

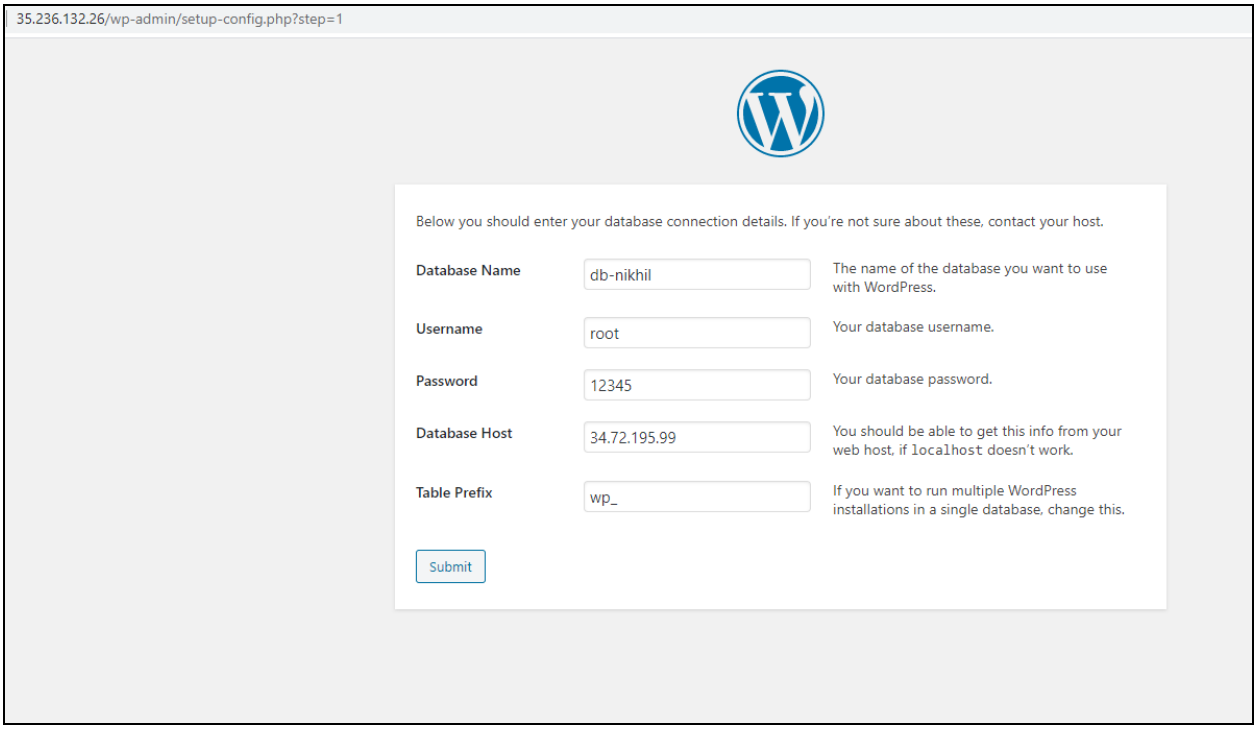

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