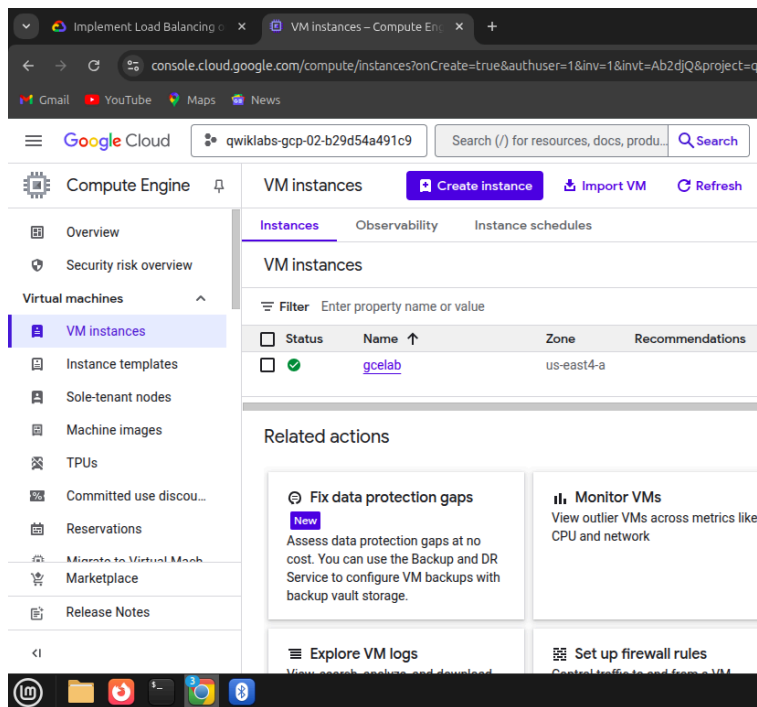
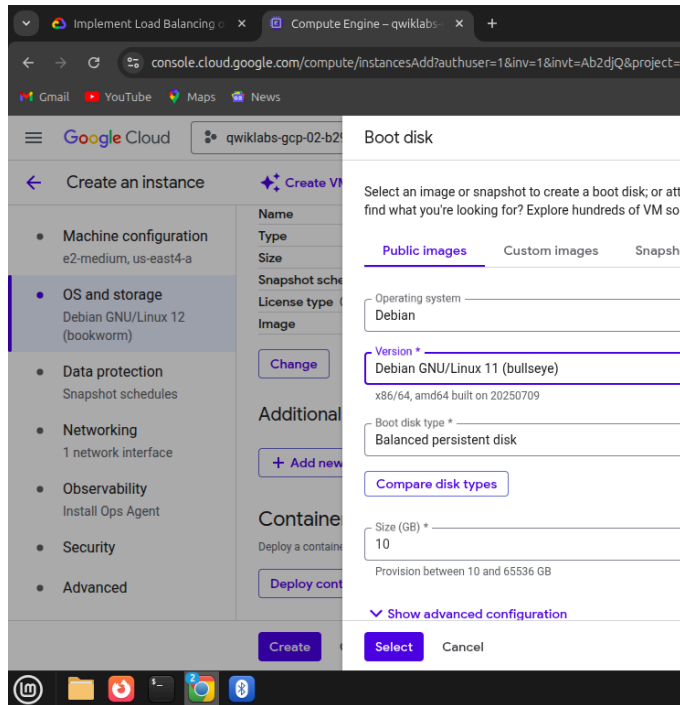


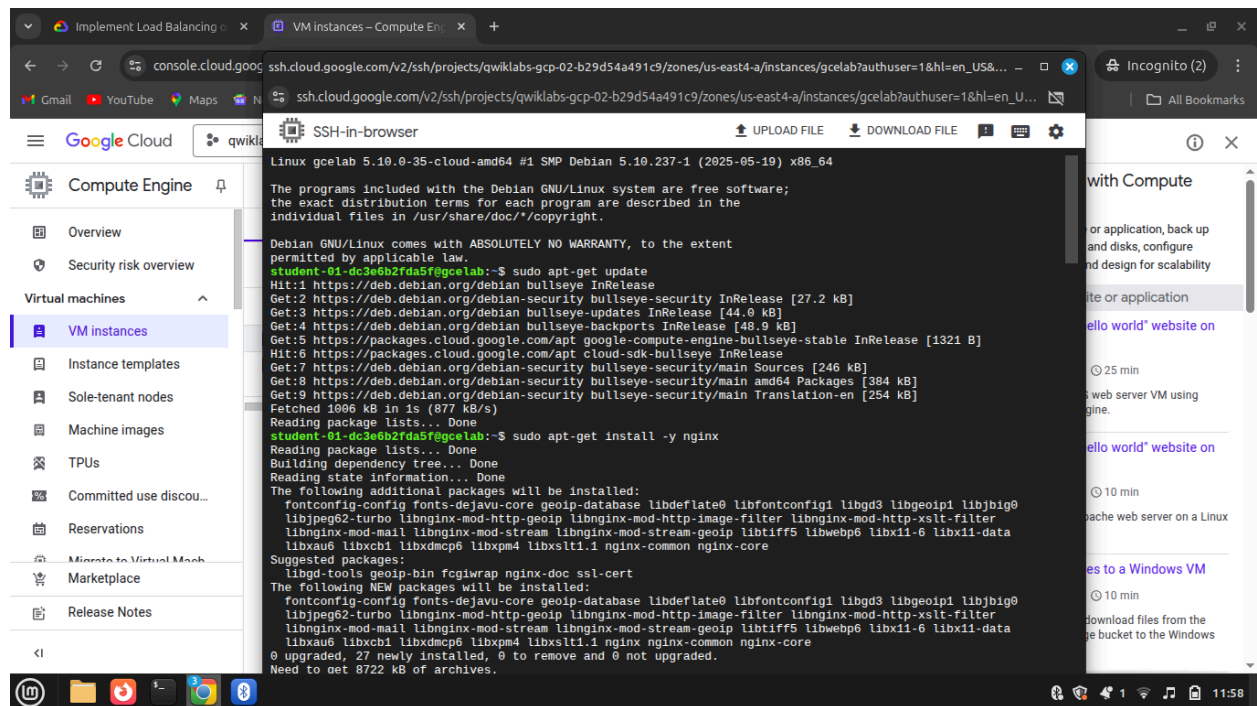
VM Instance Creation & NGINX Setup

Step 1: I Created a VM Instance via Cloud Console



Step2: I Installed NGINX Web Server via ssh inside the vm instance i created.

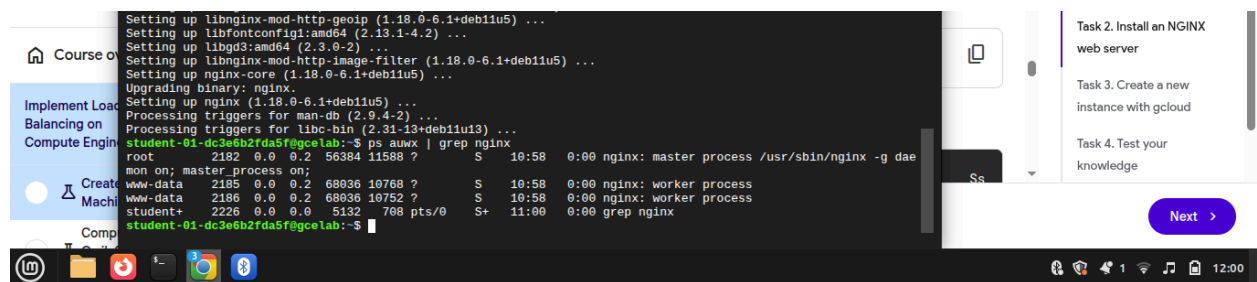
I started by updating packages using `sudo apt-get update` and then i install nginx using `sudo apt-get install -y nginx`. I confirmed **NGINX is running** by using the command `ps auxw | grep nginx`



```
Linux gcelab 5.10.0-35-cloud-amd64 #1 SMP Debian 5.10.237-1 (2025-05-19) x86_64

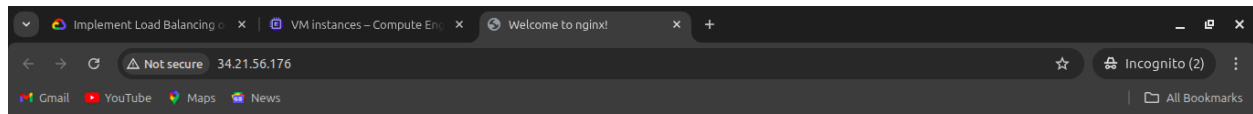
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
student-01-dc3e6b2fda5f@gcelab:~$ sudo apt-get update
Hit:1 https://deb.debian.org/debian bullseye InRelease
Get:2 https://deb.debian.org/debian-security bullseye-security InRelease [27.2 kB]
Get:3 https://deb.debian.org/debian bullseye-updates InRelease [44.0 kB]
Get:4 https://deb.debian.org/debian bullseye-backports InRelease [48.9 kB]
Get:5 https://packages.cloud.google.com/apt/google-compute-engine-bullseye-stable InRelease [1321 B]
Hit:6 https://packages.cloud.google.com/apt/cloud-sdk-bullseye InRelease
Get:7 https://deb.debian.org/debian-security bullseye-security/main Sources [246 kB]
Get:8 https://deb.debian.org/debian-security bullseye-security/main amd64 Packages [384 kB]
Get:9 https://deb.debian.org/debian-security bullseye-security/main Translation-en [254 kB]
Fetched 1006 kB in 1s (877 kB/s)
Reading package lists... Done
student-01-dc3e6b2fda5f@gcelab:~$ sudo apt-get install -y nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core geopip-database libdeflate0 libfontconfig1 libgd3 libgeoip1 libjpeg62-turbo
  libjpeg62-turbo libnghttp-mod-http-geoip libnghttp-mod-http-image-filter libnghttp-mod-http-xslt-filter
  libnghttp-mod-mail libnghttp-mod-stream libnghttp-mod-stream-geoip libtiff5 libwebp6 libx11-6 libx11-data
  libxau6 libxcb1 libxdmcp6 libxpm4 libxslt1.1 nginx-common nginx-core
Suggested packages:
  libgd-tools geopip-bin fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  fontconfig-config fonts-dejavu-core geopip-database libdeflate0 libfontconfig1 libgd3 libgeoip1 libjpeg62-turbo
  libjpeg62-turbo libnghttp-mod-http-geoip libnghttp-mod-http-image-filter libnghttp-mod-http-xslt-filter
  libnghttp-mod-mail libnghttp-mod-stream libnghttp-mod-stream-geoip libtiff5 libwebp6 libx11-6 libx11-data
  libxau6 libxcb1 libxdmcp6 libxpm4 libxslt1.1 nginx-common nginx-core
0 upgraded, 27 newly installed, 0 to remove and 0 not upgraded.
Need to get 8722 kB of archives.
```

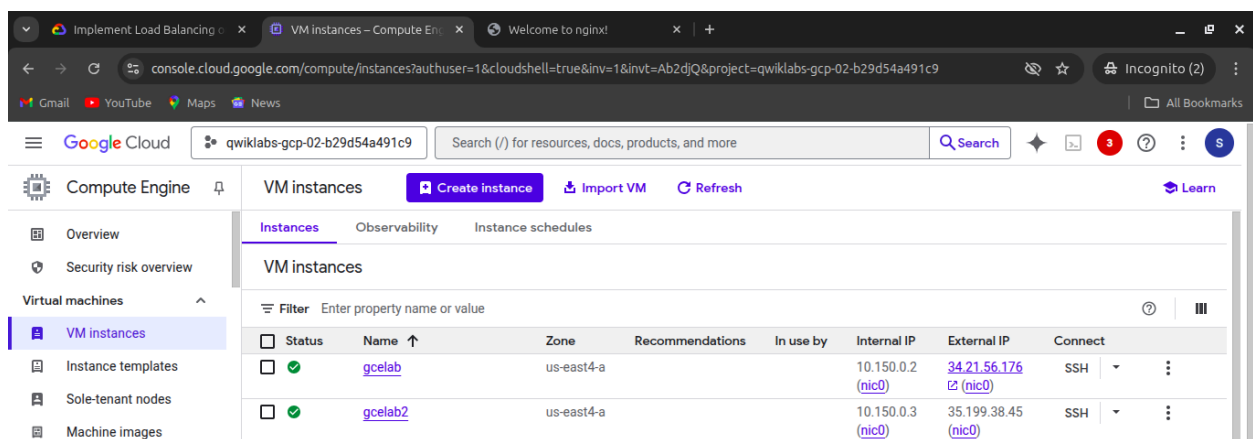
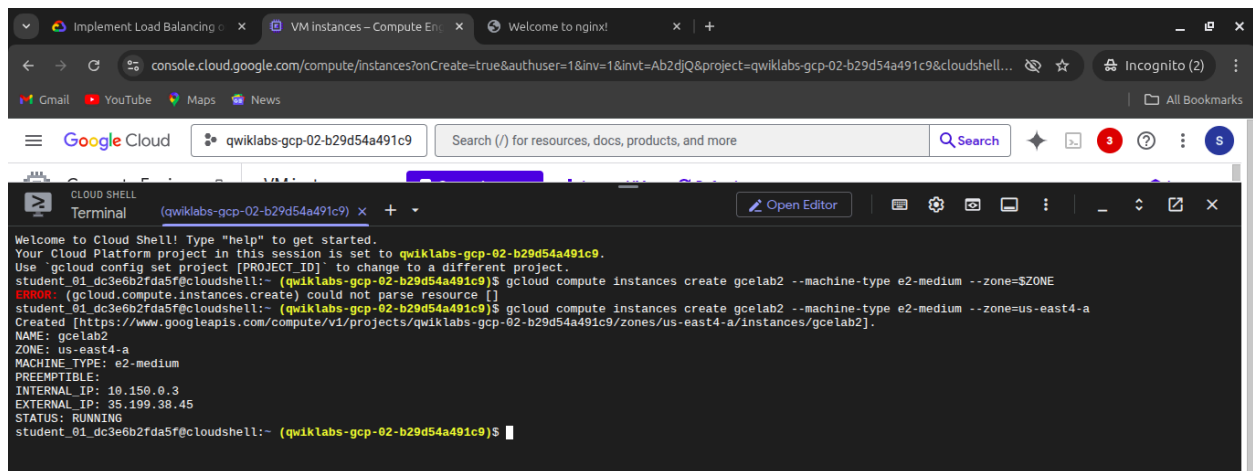


```
Setting up libnghttp-mod-http-geoip (1.18.0-6.1+deb11u5) ...
Setting up libfontconfig1:amd64 (2.13.1-4.2) ...
Setting up libgd3:amd64 (2.3.0-2) ...
Setting up libnghttp-mod-http-image-filter (1.18.0-6.1+deb11u5) ...
Setting up nginx-core (1.18.0-6.1+deb11u5) ...
Upgrading binary: nginx.
Setting up nginx (1.18.0-6.1+deb11u5) ...
Processing triggers for man-db (2.9.4-2) ...
Processing triggers for libc-bin (2.31-13+deb11u3) ...
student-01-dc3e6b2fda5f@gcelab:~$ ps auxw | grep nginx
root      2182  0.0  0.2 56384 11588 ?        Ss   10:58   0:00 nginx: master process /usr/sbin/nginx -g dae
mon on; master process on;
www-data  2185  0.0  0.2 68036 10768 ?        Ss   10:58   0:00 nginx: worker process
www-data  2186  0.0  0.2 68036 10752 ?        Ss   10:58   0:00 nginx: worker process
student+  2226  0.0  0.0 5132 708 pts/0    S+   11:00   0:00 grep nginx
student-01-dc3e6b2fda5f@gcelab:~$
```

I clicked on the external ip of the vm instance to view my nginx



Step3: I Created another VM with gcloud from cloudshell using the command `gcloud compute instances create gcelab2 --machine-type e2-medium --zone=$ZONE`



Also, I was able to SSH into the Second VM using the cloudshell using `gcloud compute ssh gcelab2 --zone=us-east4-a`

