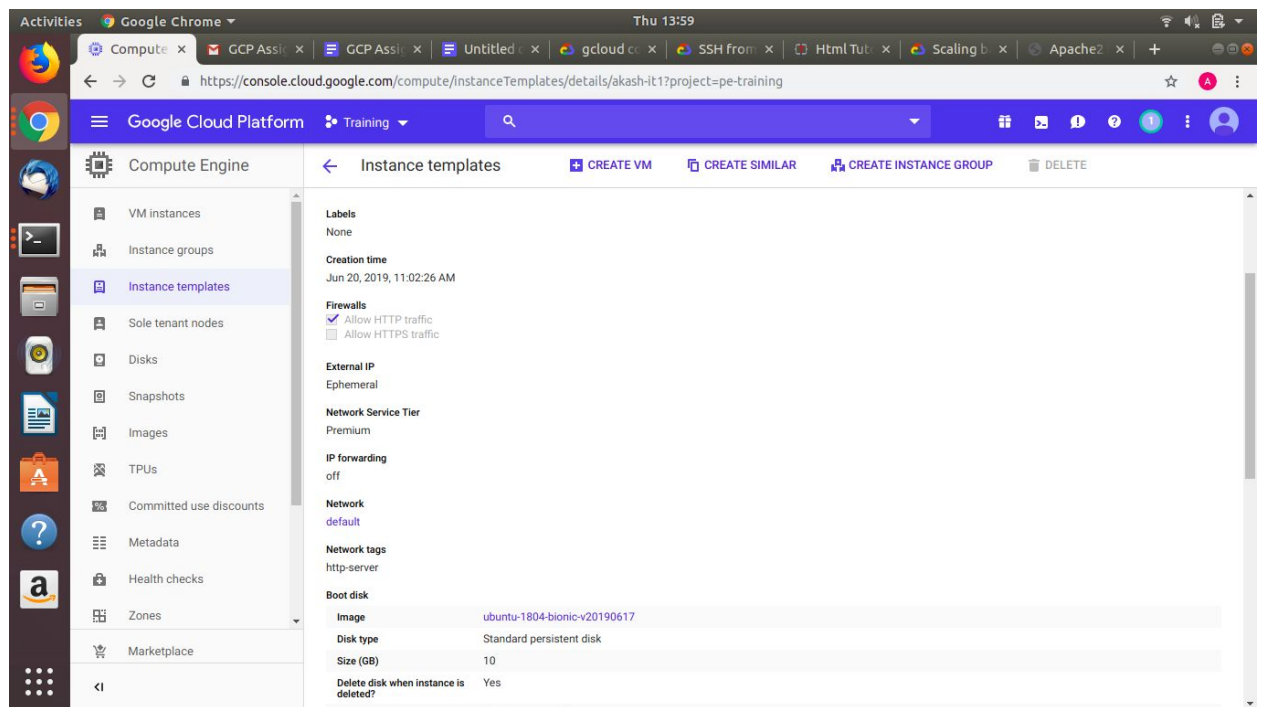


## 1. Create an instance template



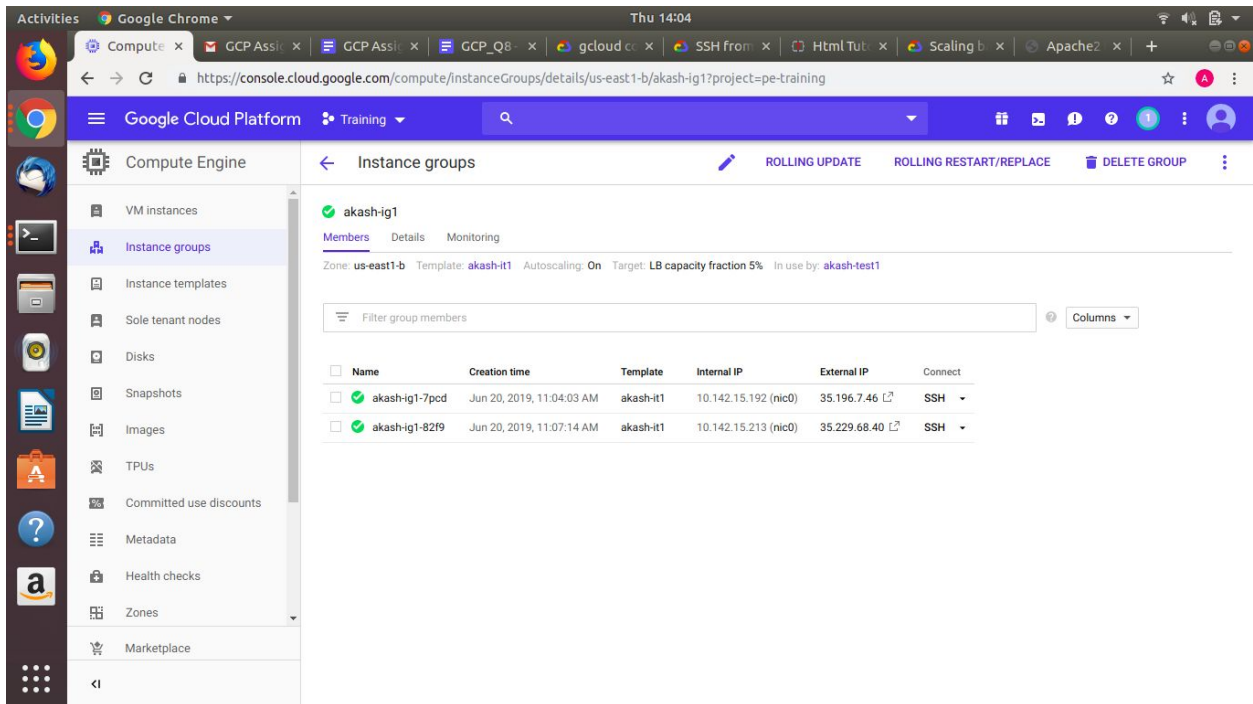
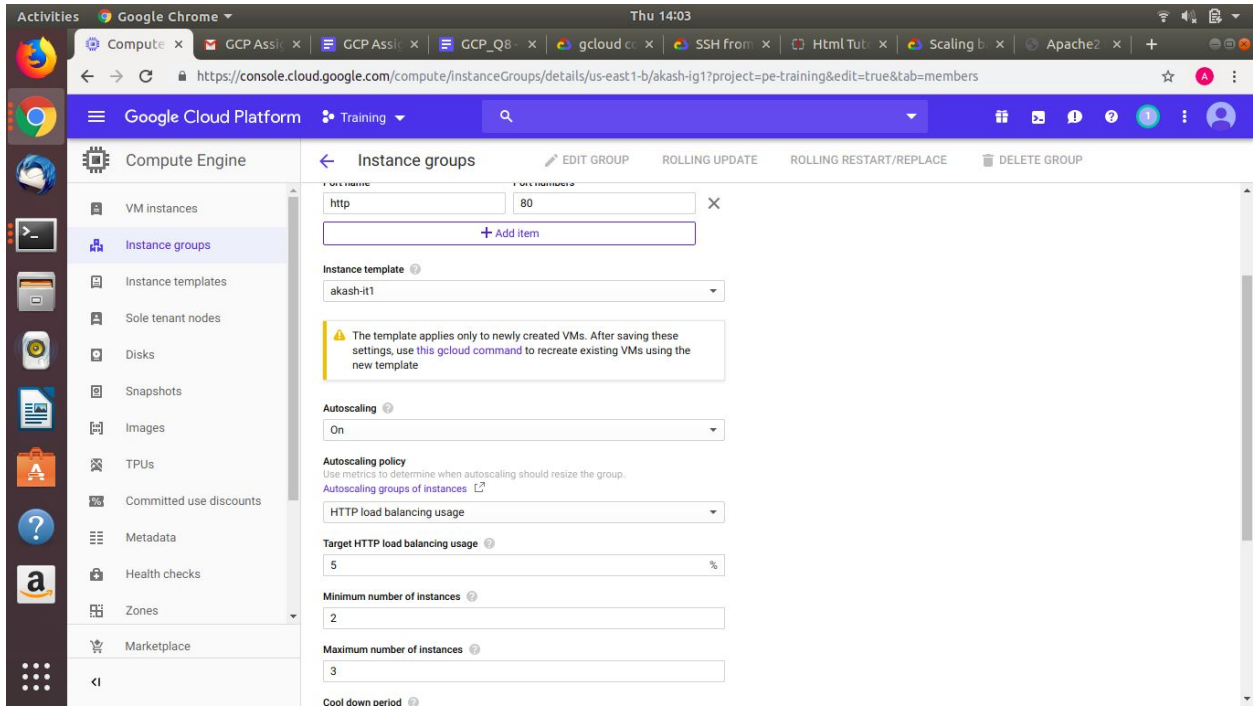
## 2. Write a startup script.

```
#!/bin/bash
```

```
sudo apt-get install apache2 -y
```

```
sudo service apache2 start
```

3. Go in instance group , create anew instance group and configure the instance group. Select the instance template.



4. Enable auto scaling using the command  
 gcloud compute instance-groups managed set-autoscaling akash-ig1 --max-num-replicas=3

```
Activities Terminal Thu 14:05
akash@Quantiphi-746: ~
File Edit View Search Terminal Help
gcloud config configurations describe
gcloud config configurations list
gcloud config set

To search the help text of gcloud commands, run:
gcloud help -- SEARCH_TERMS
akash@Quantiphi-746:~$ gcloud config set compute/zone us-east1-b
ERROR: (gcloud.config.set) argument VALUE: Must be specified.
Usage: gcloud config set SECTION/PROPERTY VALUE [optional flags]
optional flags may be --help | --installation

For detailed information on this command and its flags, run:
gcloud config set --help
akash@Quantiphi-746:~$ gcloud config set compute/zone us-east1-b
Updated property [compute/zone].
akash@Quantiphi-746:~$ gcloud compute instance-groups managed set-autoscaling akash-ig1 --max-num-replicas=3
Updated [https://www.googleapis.com/compute/v1/projects/pe-training/zones/us-east1-b/autoscalers/akash-ig1].
---
autoscalingPolicy:
  coolDownPeriodSec: 60
  cpuUtilization:
    utilizationTarget: 0.6
  maxNumReplicas: 3
  minNumReplicas: 2
  creationTimestamp: '2019-06-19T22:14:39.092-07:00'
  id: '4924012151160875217'
  kind: compute#autoscaler
  name: akash-ig1
  selfLink: https://www.googleapis.com/compute/v1/projects/pe-training/zones/us-east1-b/autoscalers/akash-ig1
  status: ACTIVE
  statusDetails:
    - message: The min_num_replicas is equal to max_num_replicas. This means the autoscaler
      cannot add or remove instances from the instance group. Make sure this is the
      correct setting.
    type: MIN_EQUALS_MAX
  target: https://www.googleapis.com/compute/v1/projects/pe-training/zones/us-east1-b/instanceGroupManagers/akash-ig1
  zone: https://www.googleapis.com/compute/v1/projects/pe-training/zones/us-east1-b
akash@Quantiphi-746:~$ gcloud compute instance-groups managed set-autoscaling akash-ig1 --max-num-replicas=3
```

4. Configure the apache2 index.html files in the instances.

5. Create a new load balancer and configure the back end front end

The screenshot shows the Google Cloud Platform console with the 'Load balancer details' page for 'akash-test1'. The page is divided into several sections: Frontend, Host and path rules, Backend, and Backend services. The Frontend section shows a single rule with Protocol HTTP, IP:Port 35.211.251.141:80, and Network Tier Standard. The Host and path rules section shows a single rule with Hosts All unmatched (default), Paths All unmatched (default), and Backend akash-test1. The Backend section shows a single backend service named '1. akash-test1' with Endpoint protocol HTTP, Named port http, Timeout 30 seconds, Cloud CDN disabled, and Health check aryahealth. The Backend services section shows a table with columns Name, Type, Zone, Healthy, Autoscaling, Balancing mode, and Capacity. The table contains one row for 'akash-ig1' with Type Instance group, Zone us-east1-b, Healthy 2 / 2, Autoscaling Target LB capacity fraction 5%, Balancing mode Max CPU: 5%, and Capacity 100%.

Name	Type	Zone	Healthy	Autoscaling	Balancing mode	Capacity
akash-ig1	Instance group	us-east1-b	2 / 2	Target LB capacity fraction 5%	Max CPU: 5%	100%

6. Copy the front end ip of the load balancer and paste it in the browser. The load will be balanced and will it will switch between 2 pages on refrshing as follows :

