**7. Use native MySQL connections from Google Compute Engine to Google Cloud SQL**

**HARDWARE REQUIREMENTS**: Core I5 Processor, 4 GB RAM, 40GB HDD

**SOFTWARE REQUIREMENTS**: Google Cloud Platform, Compute Engine, Google cloud shell, nano editor, PhP, MySQL, PhPMyAdmin

**Description:**This experiment will need access to Google Cloud platform. We will create a Google Cloud Ubuntu Instance and create a PhP application Framework on it. Next we clone a PhP application on Ubuntu instance and expose the deployed PhP application. Configure MySql & PhPMyadmin to make a full stack web application exposed by using Google Compute Instances

Steps to install and run PHP application with MYSQL on google cloud platform, using Compute Engine

1. Create Ubuntu VM in Google Cloud.

sudo apt-get update

sudo apt-get install apache2 php libapache2-mod-php

1. Run Apache Service

sudo systemctl start apache2.service #start apache

1. Check if server is running
2. Create a file and ping that on the server

sudo sh -c 'echo "Welcome to my Home page" > /var/www/html/phpinfo.php'

1. Install MySql

sudo apt-get -y install mysql-server

1. Improve MySql Installation security

sudo mysql\_secure\_installation

1. Connect to MySql

sudo mysql -u root –p

1. Install phpmyadmin

sudo apt-get install phpmyadmin

sudo dpkg-reconfigure phpmyadmin //incase of wrong config of phpmyadmin installation

1. Configure phpMyAdmin
   1. Select apache2.
   2. Select yes to use dbconfig-common for database setup.
   3. Enter the database administrator's password that you chose during MySQL configuration.
   4. Enter a password for the phpMyAdmin application.
2. Incase of wrong config of phpmyadmin installation

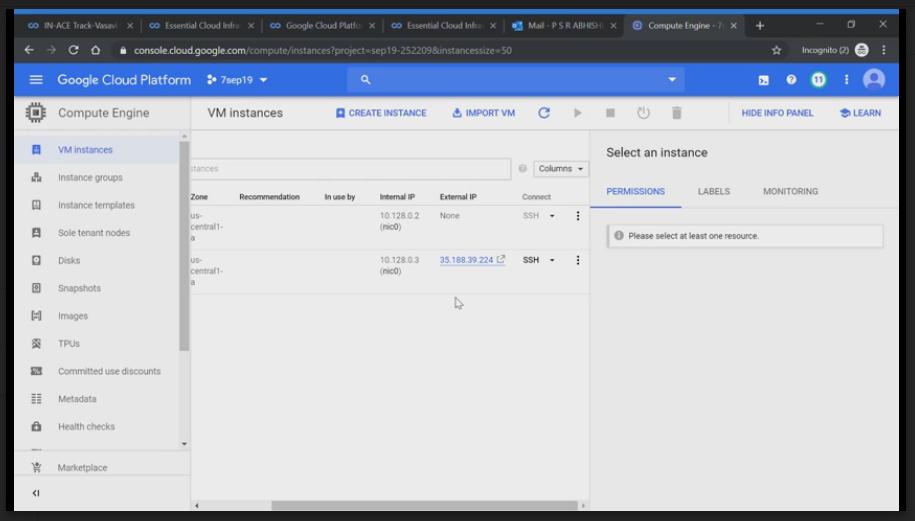
sudo dpkg-reconfigure phpmyadmin

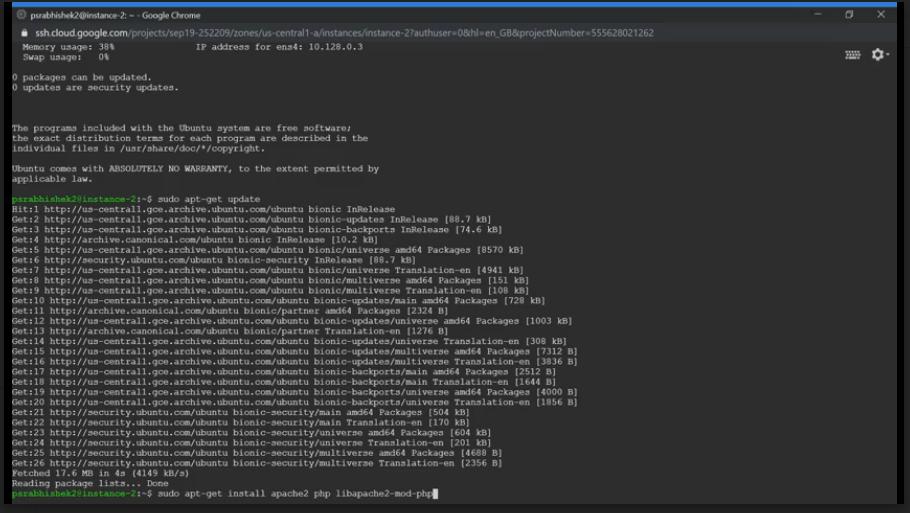
1. Incase user doesn’t have privileges then lookup for the users using
   1. Select \* from mysql.users
2. Login to phpmyadmin using the user as phpmyadmin
3. Upload file using Google shell.
4. Copy the files from the local folder to /var/www/html
5. Transferring files

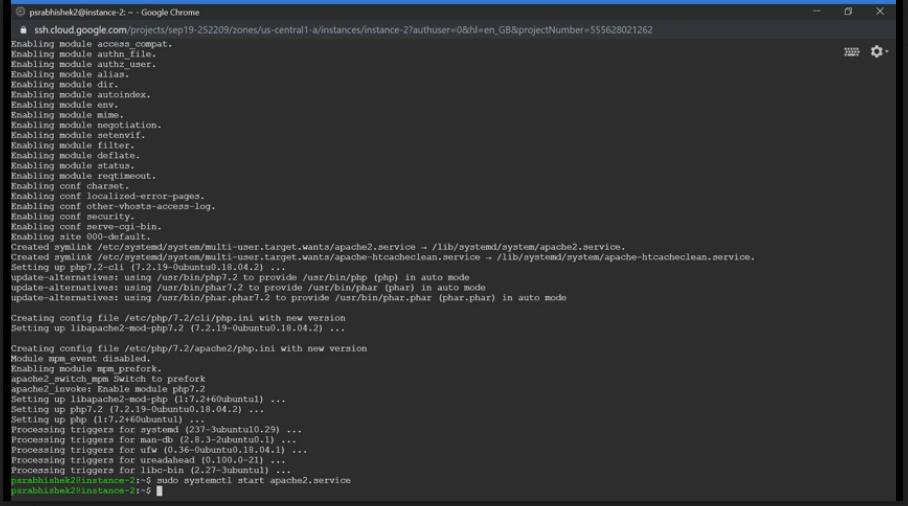
gcloud compute scp [LOCAL\_FILE\_PATH] lamp-tutorial:/var/www/html

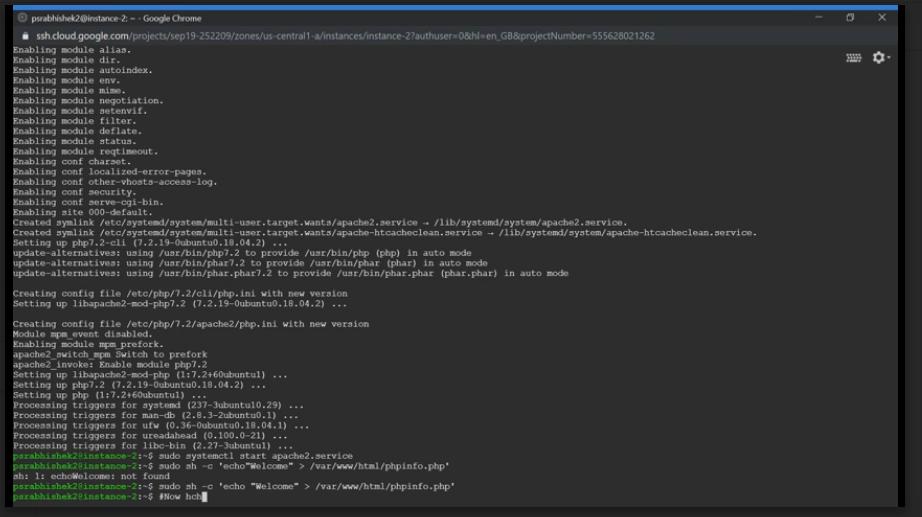
Ping PublicIP/index.php

**Input / Output:**



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