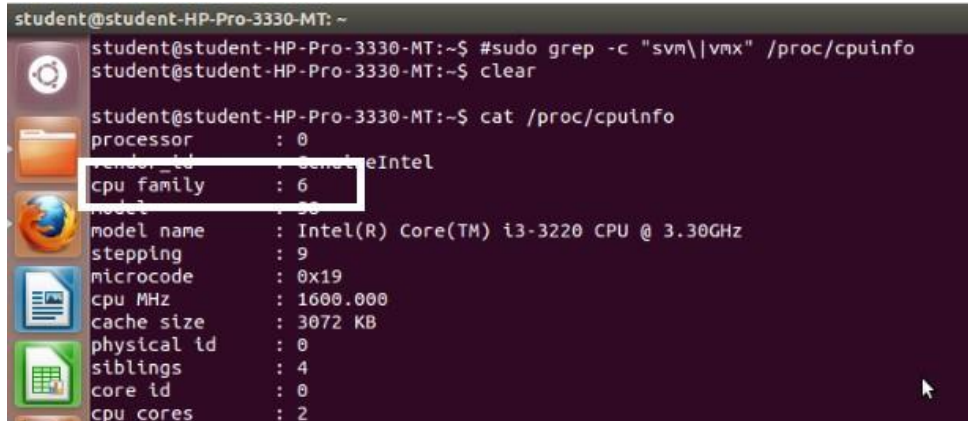


Practical No:- 02

Installation and Configuration of virtualization using KVM.

Output:-

Step 1 :- `#sudo grep -c "svm\|vmx" /proc/cpuinfo`

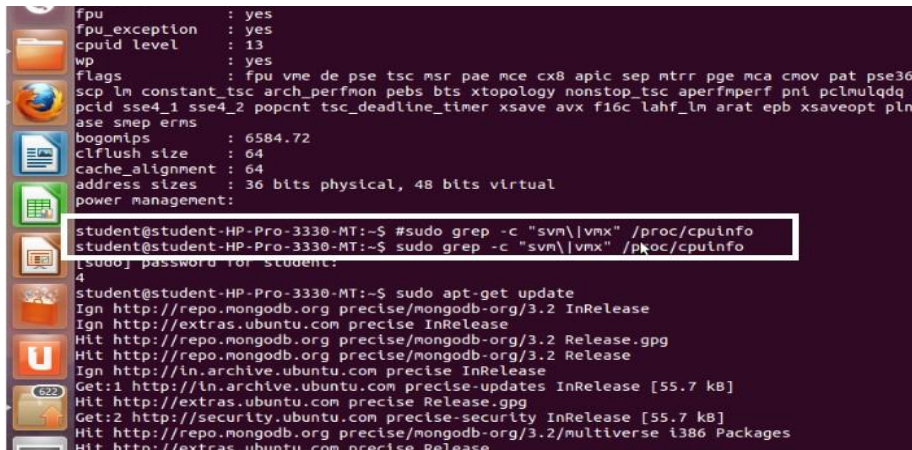


A terminal window showing the output of the command `cat /proc/cpuinfo`. The output lists various CPU details. The 'cpu family' is highlighted with a white box and shows the value '6'. Other visible details include 'processor : 0', 'vendor_id : GenuineIntel', 'model : 98', 'model name : Intel(R) Core(TM) i3-3220 CPU @ 3.30GHz', 'stepping : 9', 'microcode : 0x19', 'cpu MHz : 1600.000', 'cache size : 3072 KB', 'physical id : 0', 'siblings : 4', 'core id : 0', and 'cpu cores : 2'.

```
student@student-HP-Pro-3330-MT: ~
student@student-HP-Pro-3330-MT:~$ #sudo grep -c "svm\|vmx" /proc/cpuinfo
student@student-HP-Pro-3330-MT:~$ clear

student@student-HP-Pro-3330-MT:~$ cat /proc/cpuinfo
processor       : 0
vendor_id     : GenuineIntel
cpu family    : 6
model         : 98
model name    : Intel(R) Core(TM) i3-3220 CPU @ 3.30GHz
stepping      : 9
microcode     : 0x19
cpu MHz       : 1600.000
cache size    : 3072 KB
physical id   : 0
siblings      : 4
core id       : 0
cpu cores     : 2
```

Step2:- `#sudo apt-get install qemu-kvm`

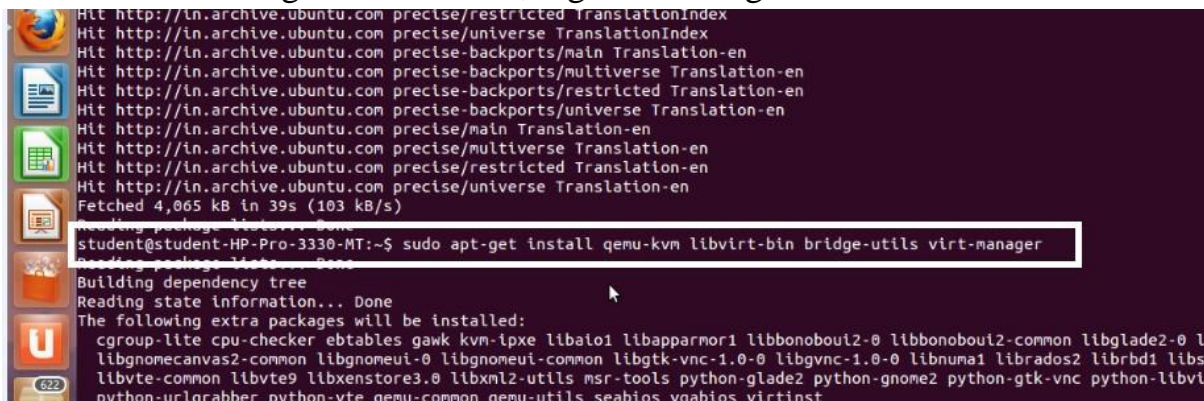


A terminal window showing the output of `sudo apt-get update` and `sudo apt-get install qemu-kvm`. The update command shows several packages being updated from various repositories. The install command is partially visible at the bottom of the screenshot.

```
student@student-HP-Pro-3330-MT:~$ #sudo grep -c "svm\|vmx" /proc/cpuinfo
student@student-HP-Pro-3330-MT:~$ sudo grep -c "svm\|vmx" /proc/cpuinfo
[sudo] password for student:
student@student-HP-Pro-3330-MT:~$ sudo apt-get update
Ign http://repo.mongodb.org precise/mongodb-org/3.2 InRelease
Ign http://extras.ubuntu.com precise InRelease
Hit http://repo.mongodb.org precise/mongodb-org/3.2 Release.gpg
Hit http://repo.mongodb.org precise/mongodb-org/3.2 Release
Ign http://in.archive.ubuntu.com precise InRelease
Get:1 http://in.archive.ubuntu.com precise-updates InRelease [55.7 kB]
Hit http://extras.ubuntu.com precise Release.gpg
Get:2 http://security.ubuntu.com precise-security InRelease [55.7 kB]
Hit http://repo.mongodb.org precise/mongodb-org/3.2/multiverse i386 Packages
Hit http://extras.ubuntu.com precise Release
```

Step 3 :- `#sudo adduser rait`

After running this command, log out and log back in as rait



A terminal window showing the output of `sudo apt-get install qemu-kvm libvirt-bin bridge-utils virt-manager`. The command is being executed, and the terminal shows the process of building a dependency tree and reading state information. A list of extra packages to be installed is shown at the bottom.

```
student@student-HP-Pro-3330-MT:~$ sudo apt-get install qemu-kvm libvirt-bin bridge-utils virt-manager
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  cgrouplite cpu-checker ebttables gawk kvm-ixpe libatop1 libapparmor1 libbonoboui2-0 libbonoboui2-common libglade2-0 l
  libgnomecanvas2-common libgnomeui-0 libgnomeui-common libgtk-vnc-1.0-0 libgvnc-1.0-0 libnuma1 librados2 librbd1 lib
  libvte-common libvte9 libxext3.0 libxml2-utils msr-tools python-glade2 python-gnome2 python-gtk-vnc python-libv
  python-urlgrabber python-vte qemu-common qemu-utils seabios vgabios virtinst
```

Step 4 :- #sudoadduserairtlibvirt

After running this command, log out and log back in as rait

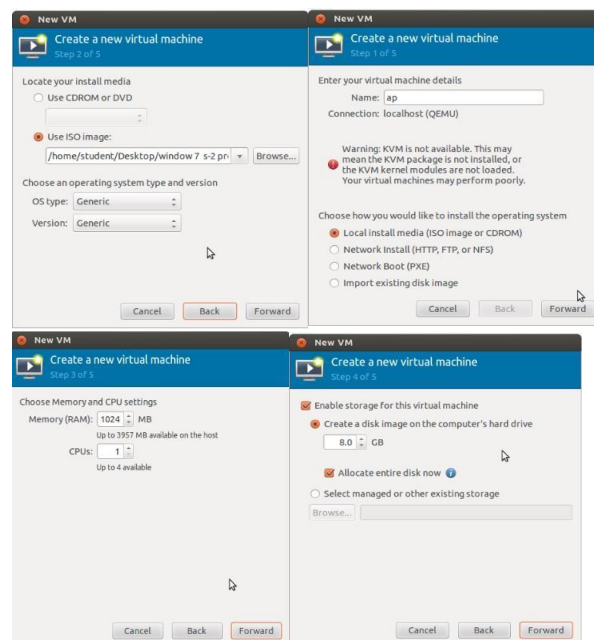
```
Setting up python-vte (1:0.28.2-3ubuntu2) ...  
Setting up virtinst (0.600.1-1ubuntu3.3) ...  
Setting up virt-manager (0.9.1-1ubuntu5.1) ...  
Processing triggers for libc-bin ...  
ldconfig deferred processing now taking place  
student@student-HP-Pro-3330-MT:~$ virt-manager  
student@student-HP-Pro-3330-MT:~$
```

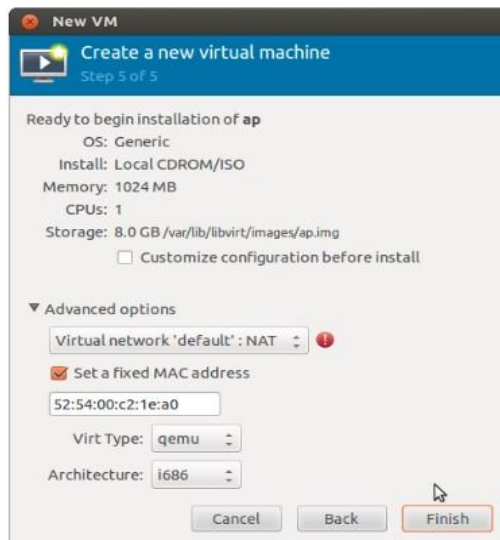
Step 5 :- Open Virtual Machine Manager application and Create Virtual Machine

#virt-manager as shown below

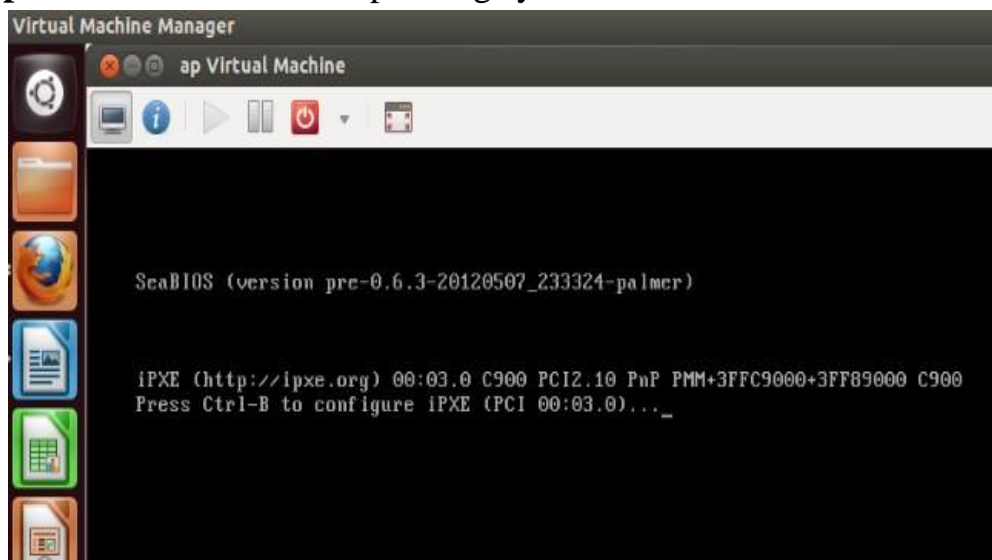


Step 6 :- Create a new virtual machine as shown below

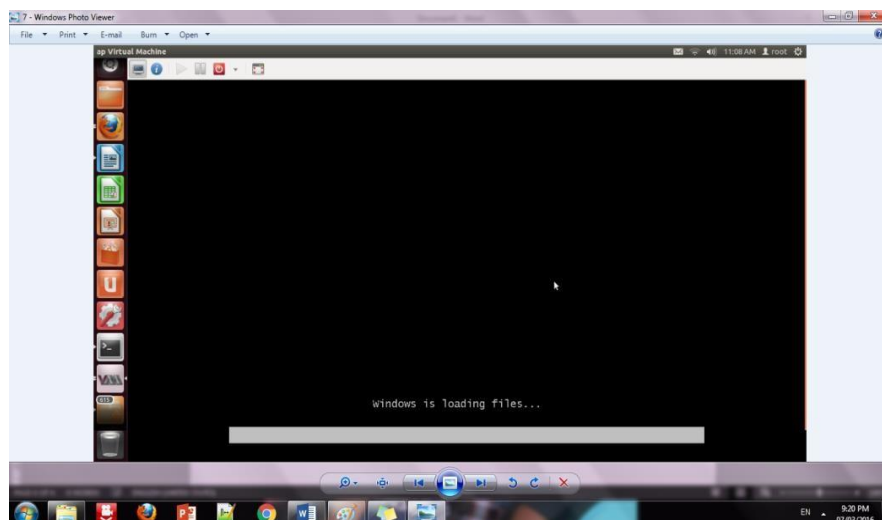




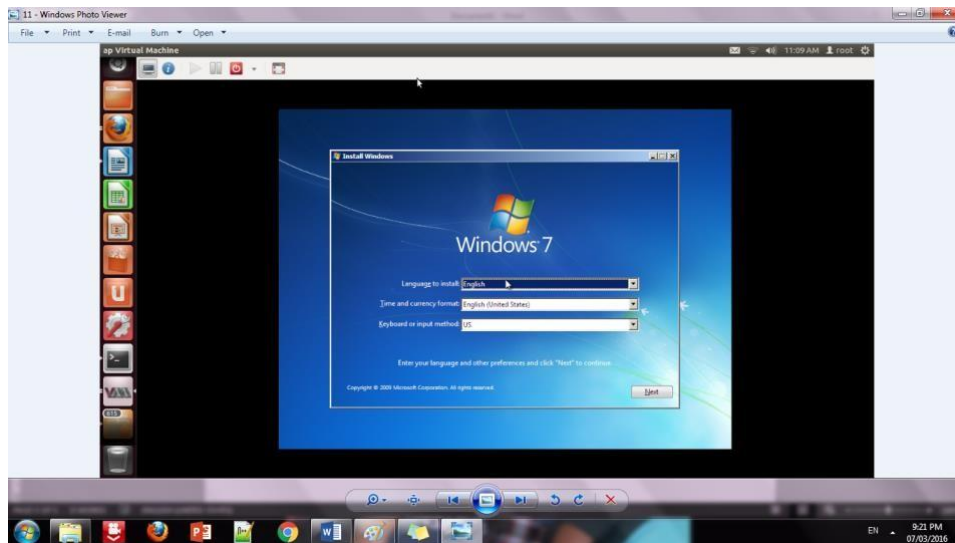
Step 7 :- Install windows operating system on virtual machine



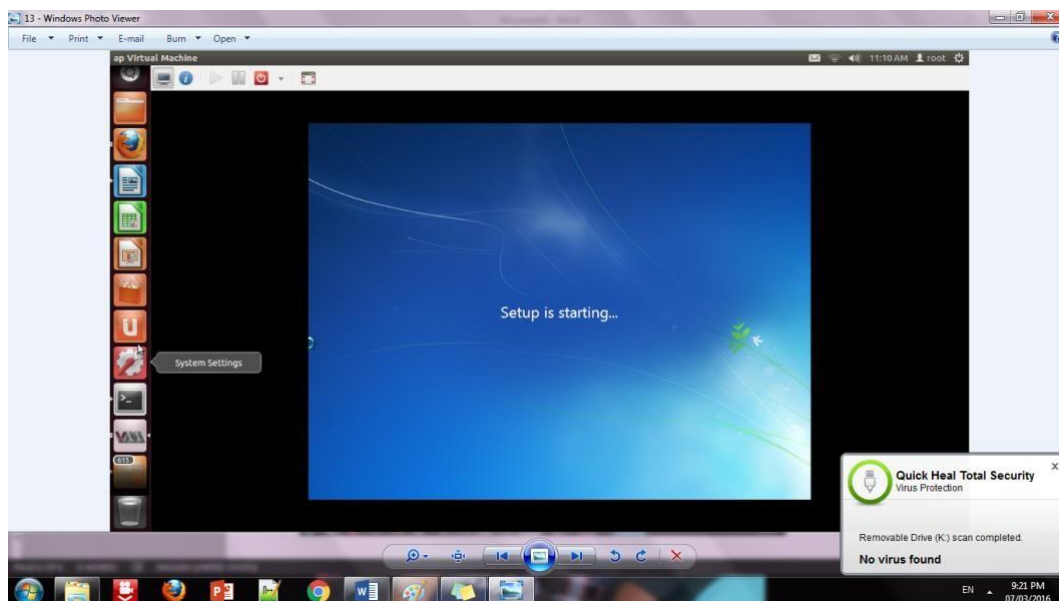
Step 8:- Installation of windows on virtual machine



Step 9:- Installation of windows 7 on virtual machine



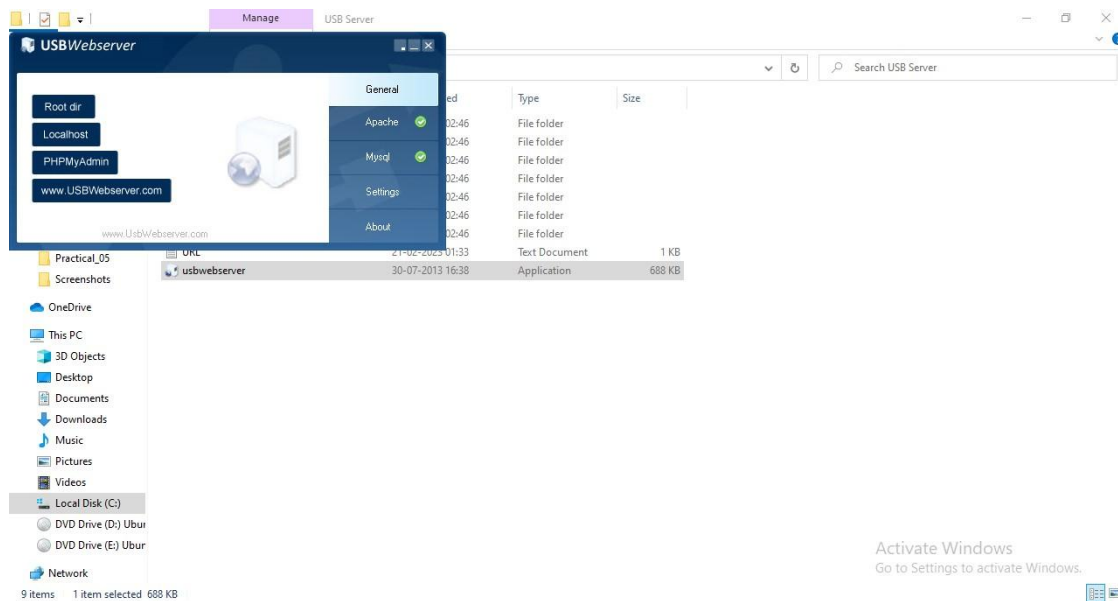
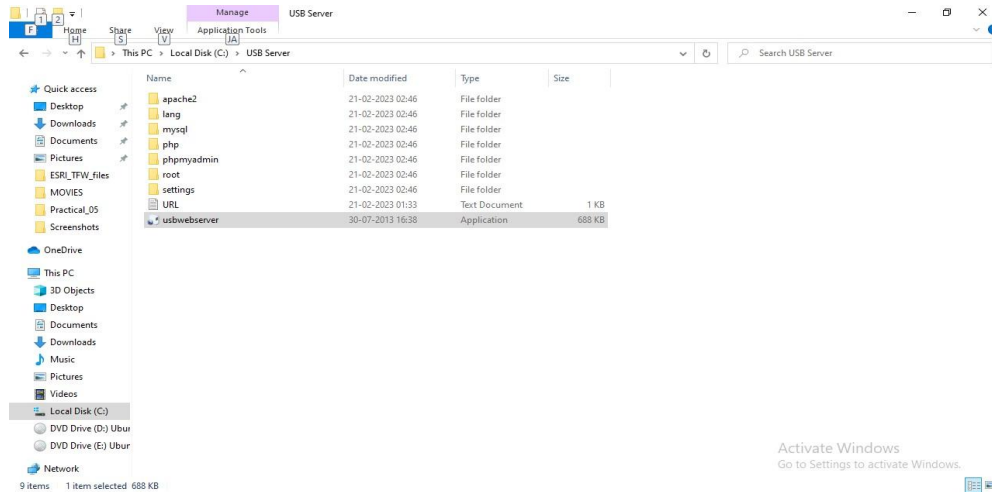
Step 10:- Initialization of windows on virtual machine

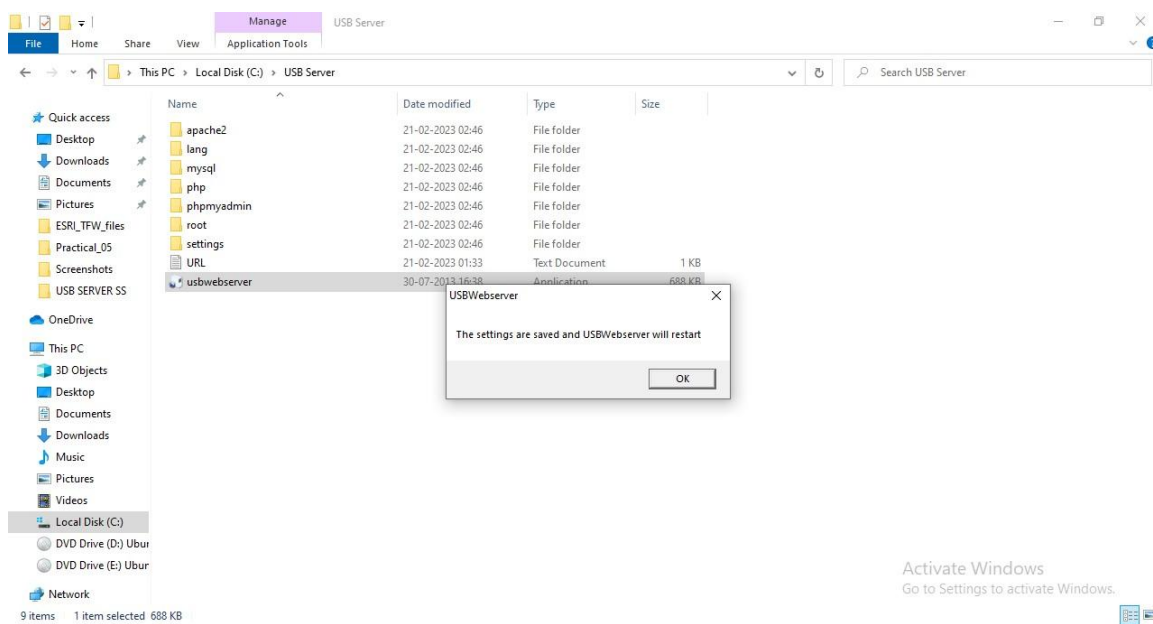


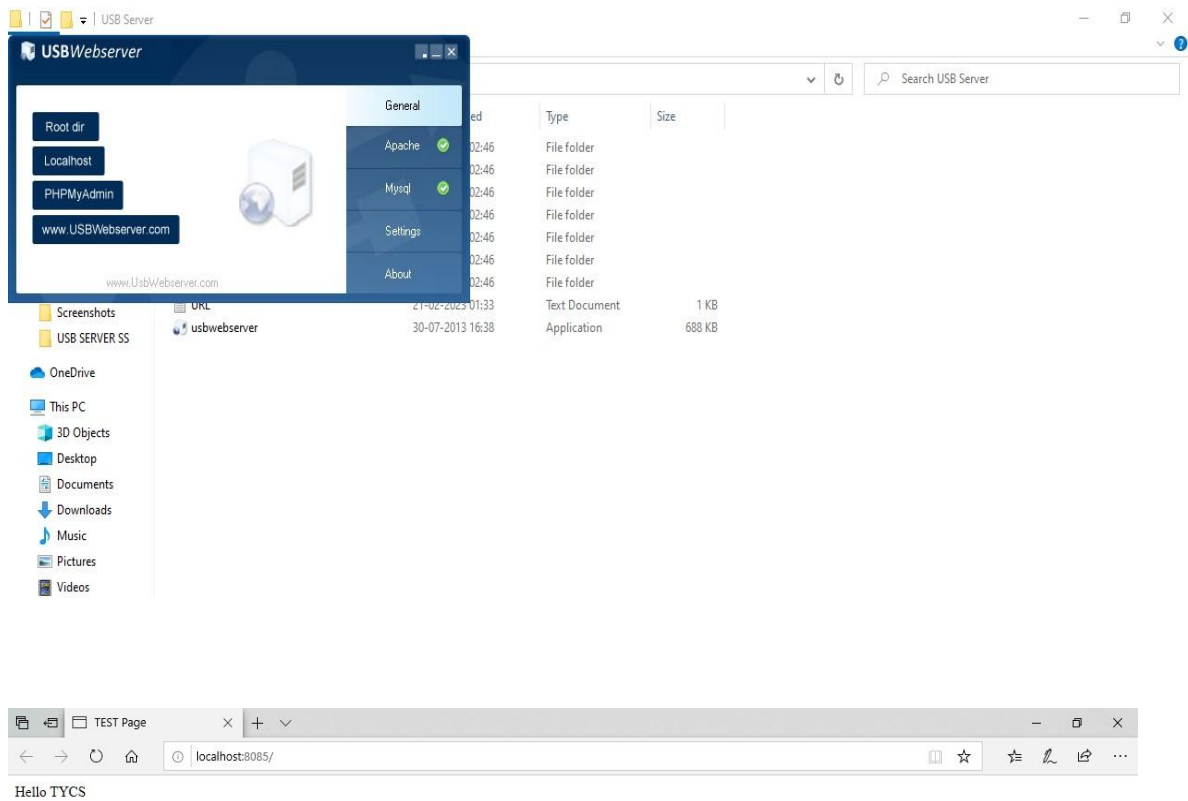
Practical No:- 03

Study and implementation of Infrastructure as a Service

Output:-





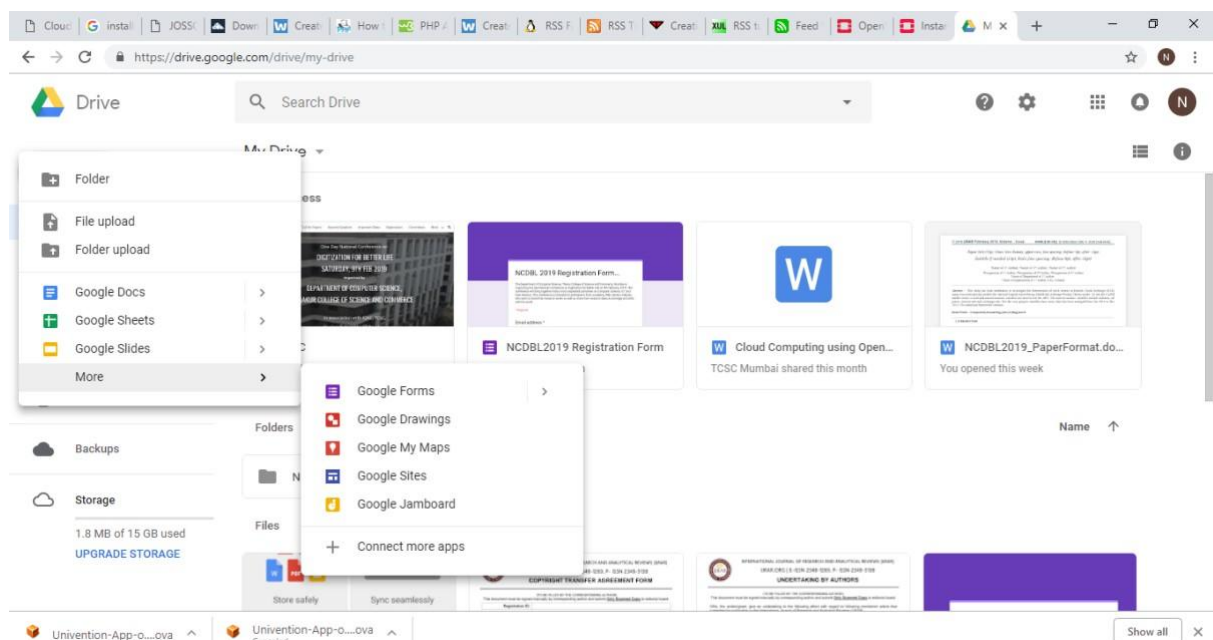
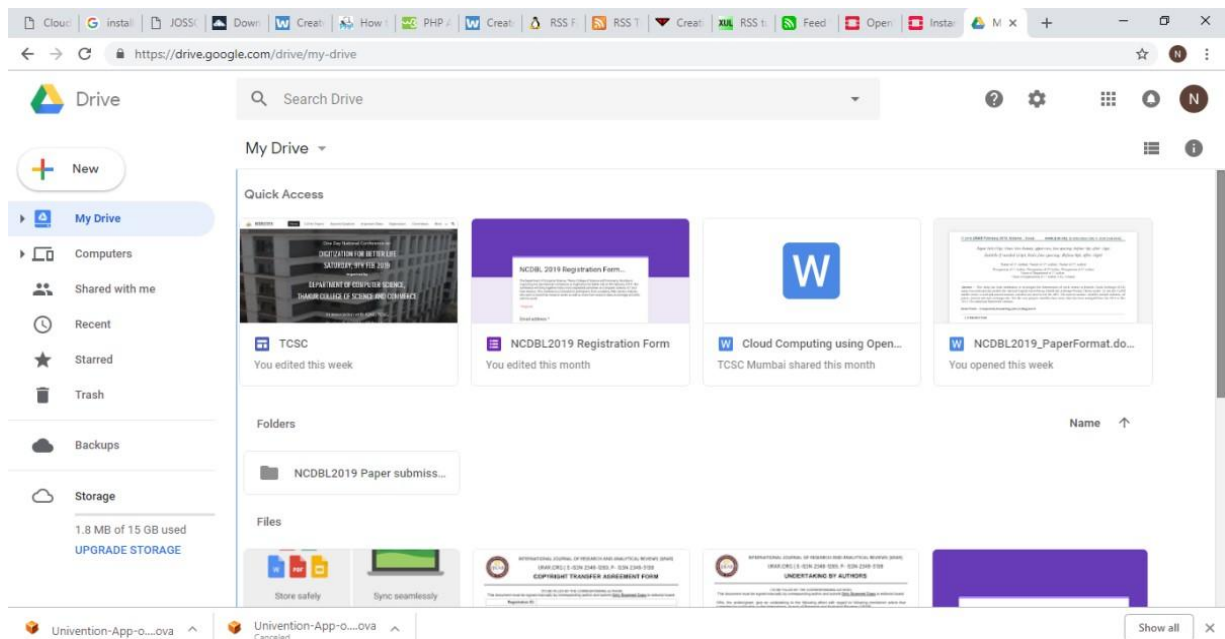


Activate Windows
Go to Settings to activate Windows.

Practical No:- 04

Study and implementation of Storage as a Service.

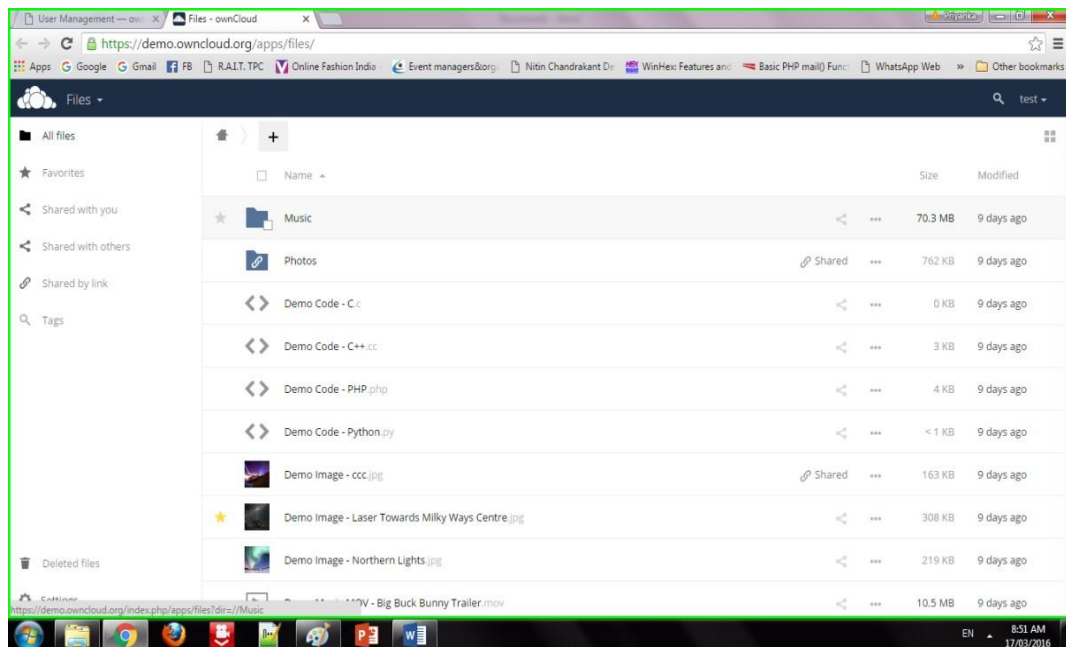
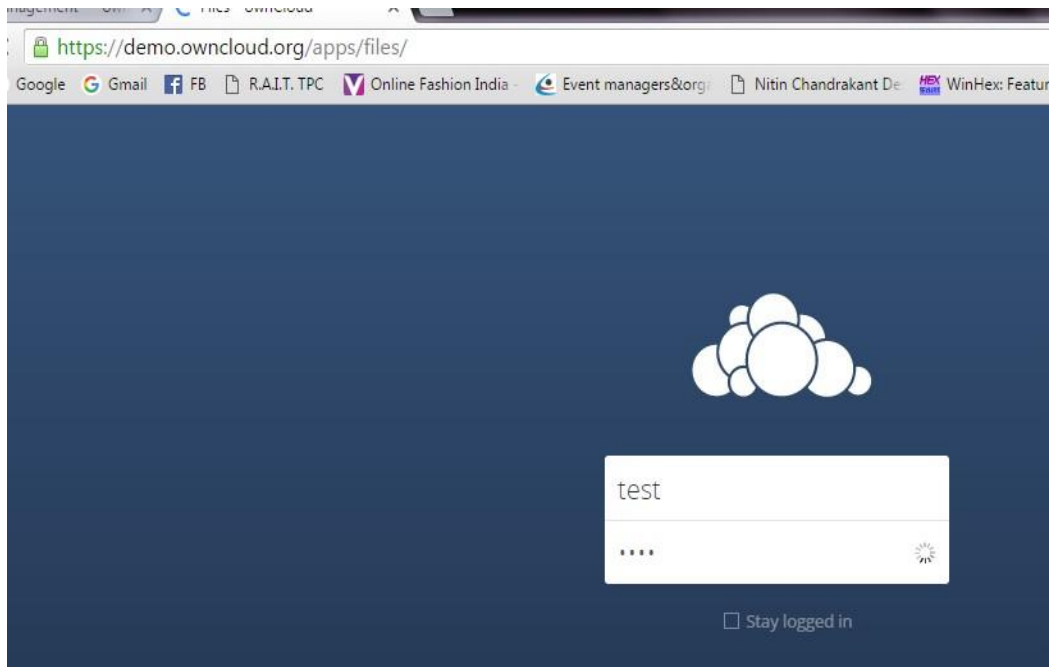
Output:-



Practical No:- 05

Study and implementation of identity management.

Output:-



Users						
+ Add Group						
Username		Password		Groups	Create	
Everyone	1	Username	Full Name	Password	Groups	Group Admin for
Admins	1	test	test	*****	admin	no group
				Quota		
				1 GB		

Users

BE B Div

+

be_b

.....

Groups

Create

set new password

.....

Full Name

be_b

Sharing

- ☒ Allow apps to use the Share API
- ☒ Allow users to share via link
 - ☒ Enforce password protection
 - ☒ Allow public uploads
 - ☒ Set default expiration date
- Expire after days ☒ Enforce expiration date
- ☒ Allow resharing
- ☒ Restrict users to only share with users in their groups
- ☒ Allow users to send mail notification for shared files
- ☒ Exclude groups from sharing

Groups

These groups will still be able to receive shares, but not to initiate them.

Files

All files

Favorites

Shared with you

Shared with others

Shared by link

Tags

Photos

+

Name

hacking.jpg

mate.jpg

röket.jpg

3 files

Details

Rename

Download

Delete



hacking.jpg

★ 228 KB, 9 days ago

Collaborative tags

Activities Comments **Sharing** Versions

Share with users or groups ...

☒ Share link

<https://demo.owncloud.org/s/T0GPHlNNpC5vIVp>

☐ Password protect

☐ Set expiration date

Activities Comments **Sharing**

Share with users or groups ...

admin (group) ☒ can share ☒ can edit

admin



+	Username	Password	Groups	Create		
2	Username	Full Name	Password	Groups	Group Admin for	Quota
4	my_circle	my_circle	*****	users, be_b div	be_b div	5 GB

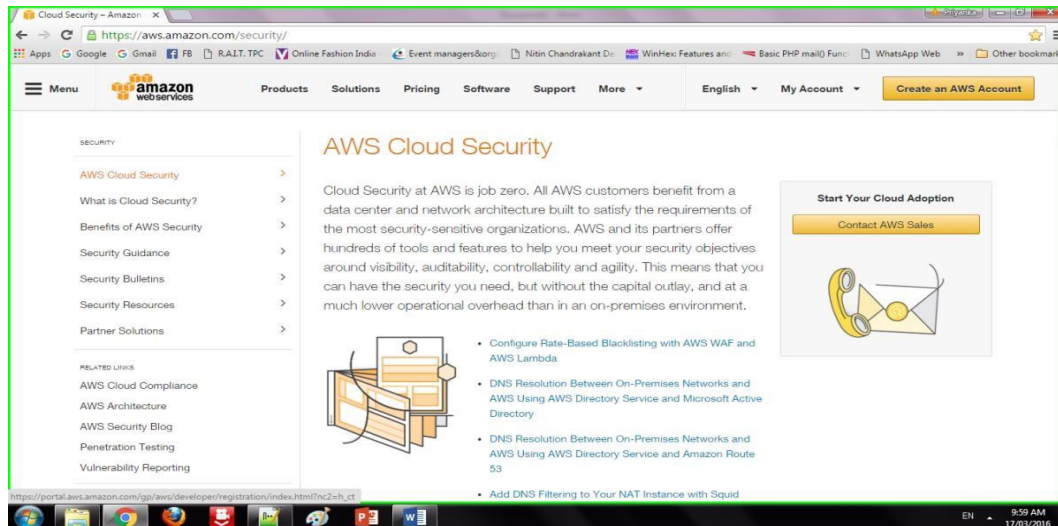
Music Shared with admin ... a minute ago

Practical No:- 06

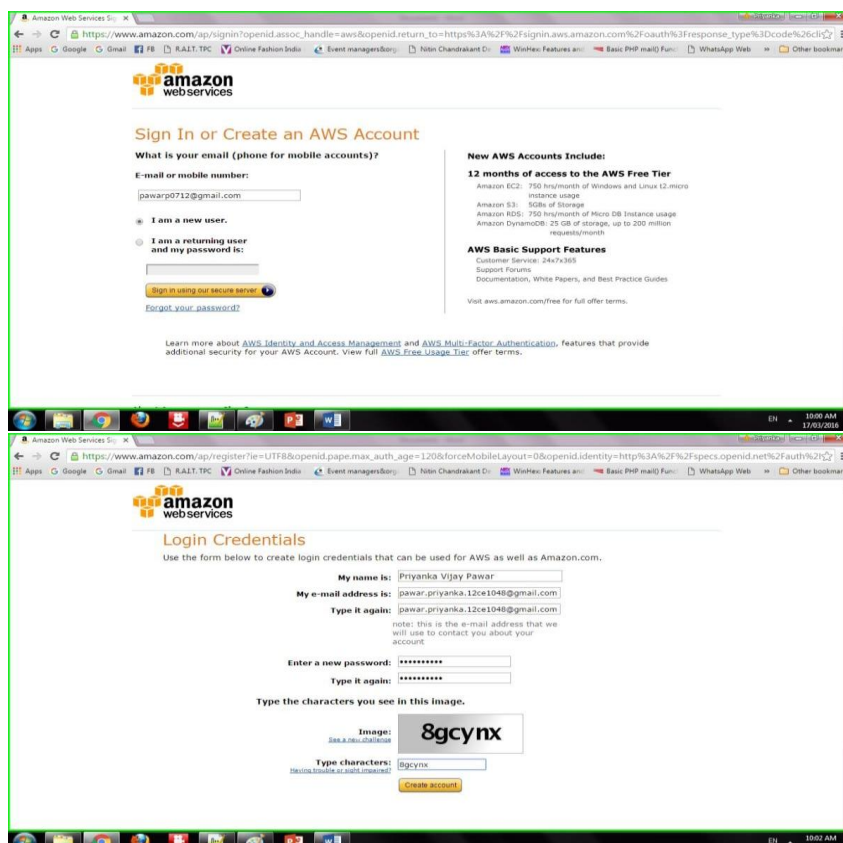
Study Cloud Security management

Output:-

Step 1:- goto aws.amazon.com



Step 2 :- Click on "My Account". Select "AWS management console" and click on it. Give Email id in the required field



Contact Information

☐ Company Account ☒ Personal Account

* Required Fields

Full Name* Priyanka Vijay Pawar

Country* India

* If you select India, your country selection cannot be changed after creating the account

Address* 328, Shri Krupa Sadan, Thakurnagar
Mhatavli, Nagaon-Uran

City* Uran

State / Province or Region* Maharashtra

Postal Code* 400702

Phone Number* 7738531274

Security Check

[Refresh Image](#)

Step 3:- Addition of security features

Menu **amazon web services** Products Solutions Pricing Software Support More

English **My Account** Complete Sign Up

SECURITY

- [AWS Cloud Security](#)
- [What is Cloud Security?](#)
- [Benefits of AWS Security](#)

AWS Cloud Security

Cloud Security at AWS is job zero. All AWS customers benefit from a data center and network architecture built to satisfy the requirements of the most security-sensitive organizations. AWS and its partners offer

MY ACCOUNT

- [AWS Management Console](#)
- [Account Settings](#)
- [Billing & Cost Management](#)
- [Security Credentials](#)

[Contact AWS Sales](#)

Step 4:- Sign in to an AWS account

amazon web services

Sign In or Create an AWS Account

What is your email (phone for mobile accounts)?

E-mail or mobile number:

pawar.priyanka.12ce1048@gmail.com

☐ I am a new user.

☒ I am a returning user and my password is:

[Sign in using our secure server](#)

[Forgot your password?](#)

New AWS Accounts Include:

12 months of access to the AWS Free Tier

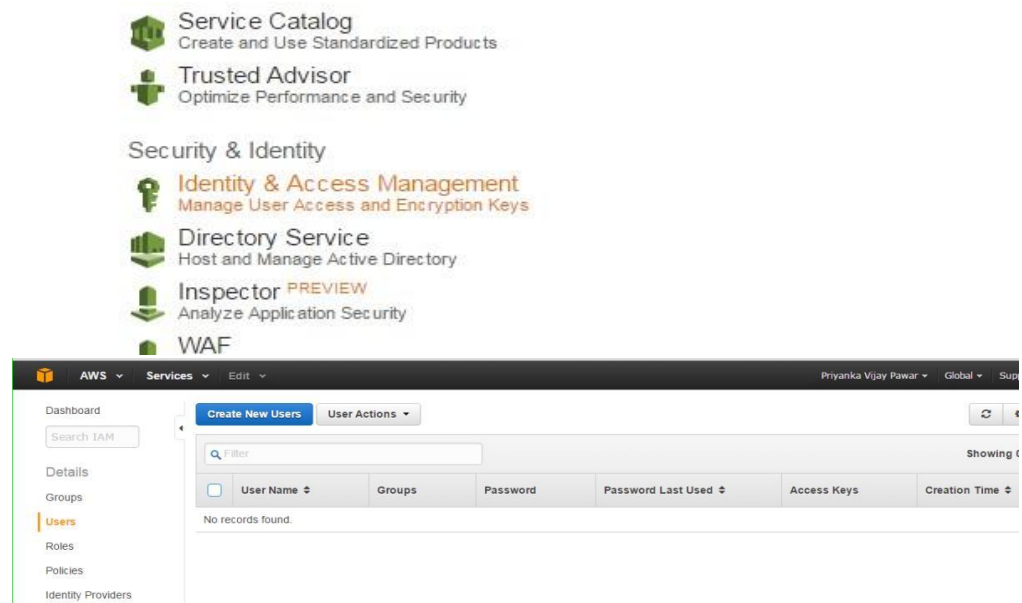
- Amazon EC2: 750 hrs/month of Windows and Linux t2.micro instance usage
- Amazon S3: 5GBs of Storage
- Amazon RDS: 750 hrs/month of Micro DB Instance usage
- Amazon DynamoDB: 25 GB of storage, up to 200 million requests/month

AWS Basic Support Features

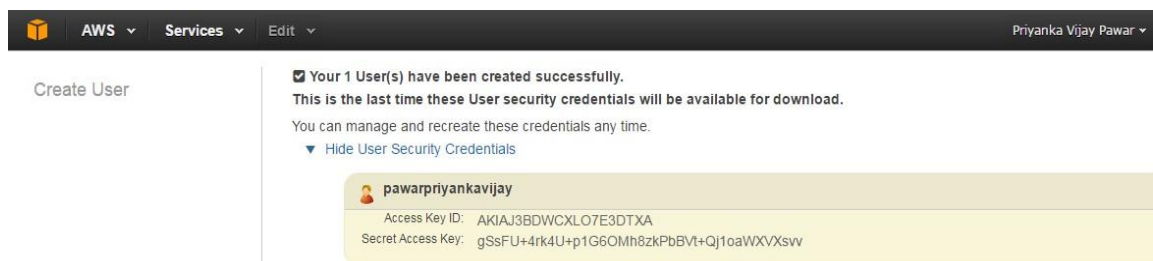
- Customer Service: 24x7x365
- Support Forums
- Documentation, White Papers, and Best Practice Guides

Visit [aws.amazon.com/free](#) for full offer terms.

Learn more about [AWS Identity and Access Management](#) and [AWS Multi-Factor Authentication](#), features that provide additional security for your AWS Account. View full [AWS Free Usage Tier](#) offer terms.



Step 5 :- Creation of users



Step 6:- Adding users to group

AWS

Services

Edit

Dashboard

Search IAM

Details

Groups

Users

Roles

Policies

Identity Providers

Account Settings

Credential Report

Encryption Keys

IAM > Users > pawarpriyankavijay

Summary

User ARN:

arn:aws:iam::911721231659:user/pawarpriyankavijay

Has Password:

No

Groups (for this user):

0

Path:

/

Creation Time:

2016-03-17 10:12 UTC+0530

Groups

Permissions

Security Credentials

Access Advisor

This user does not belong to any groups.

Add User to Groups

Step 7:- Creating Access key

Groups

Permissions

Security Credentials

Access Advisor

Access Keys

Use access keys to make secure REST or Query protocol requests to any AWS service API. For your protection, you should never share your secret keys with anyone. In addition, industry best practice recommends frequent key rotation. [Learn more about Access Keys](#)

Create Access Key

Access Key ID	Created	Last Used	Last Used Service	Last Used Region	Status	Actions
AKIAJ3BDWCXLO7E3DTXA	2016-03-17 10:12 UTC+0530	N/A	N/A	N/A	Active	Make Inactive Delete

Sign-In Credentials

User Name

pawarpriyankavijay

Manage Password

Password

No

Create Access Key

✓

Your access key has been created successfully.

This is the last time these User security credentials will be available for download.

You can manage and recreate these credentials any time.

Hide User Security Credentials

pawarpriyankavijay

Access Key ID:

AKIAJSIBMBDSFX3YMLRQ

Secret Access Key:

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

Close

Download Credentials

Manage MFA Device

To activate a virtual MFA device, you must first install an AWS MFA-compatible application on the user's smartphone, PC, or other device. You can find a list of AWS MFA-compatible applications [here](#). After the application is installed, click Next Step to configure the virtual MFA.

☒ Don't show me this dialog box again.

Cancel

Previous

Next Step

Step 8 :- Setting permissions to users

Groups

Users

Roles

Policies

Identity Providers

Account Settings

Credential Report

Encryption Keys

Path: /

Creation Time: 2016-03-17 10:12 UTC+0530

Groups

Permissions

Security Credentials

Access Advisor

Managed Policies

There are no managed policies attached to this user.

Attach Policy

Attach Policy

Select one or more policies to attach. Each user can have up to 10 policies attached.

Filter: Policy Type <input type="text" value="Filter"/>		Showing 193 results			
	Policy Name	Attached Entities	Creation Time	Edited Time	
<input checked="" type="checkbox"/>	AdministratorAccess	0	2015-02-07 00:09 UTC+0530	2015-02-07 00:09 UTC+0530	
<input checked="" type="checkbox"/>	AmazonAPIGatewayAdministr...	0	2015-07-09 23:04 UTC+0530	2015-07-09 23:04 UTC+0530	
<input type="checkbox"/>	AmazonAPIGatewayInvokeFul...	0	2015-07-09 23:06 UTC+0530	2015-07-09 23:06 UTC+0530	
<input type="checkbox"/>	AmazonAPIGatewayPushToCL...	0	2015-11-12 05:11 UTC+0530	2015-11-12 05:11 UTC+0530	



Groups
Users
Roles
Policies
Identity Providers
Account Settings
Credential Report
Encryption Keys


GroupsPermissionsSecurity CredentialsAccess Advisor

Managed Policies

The following managed policies are attached to this user. You can attach up to 10 managed policies.

Attach Policy

Policy Name	Actions
 AdministratorAccess	Show Policy Detach Policy Simulate Policy
 AmazonAPIGatewayAdministrator	Show Policy Detach Policy Simulate Policy

 IAM Policy Simulator

Mode : Existing Policies ▾Priyanka Vijay Pawar ▾

Policies
Back

Editing policy: AdministratorAccess

AWS Managed Policy

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "iam:*",
      "Resource": "*"
    }
  ]
}
```

Policy Simulator

Select service ▾Select actions ▾Select AllDeselect AllReset ContextsClear ResultsRun Simulation

Global Settings ⓘ

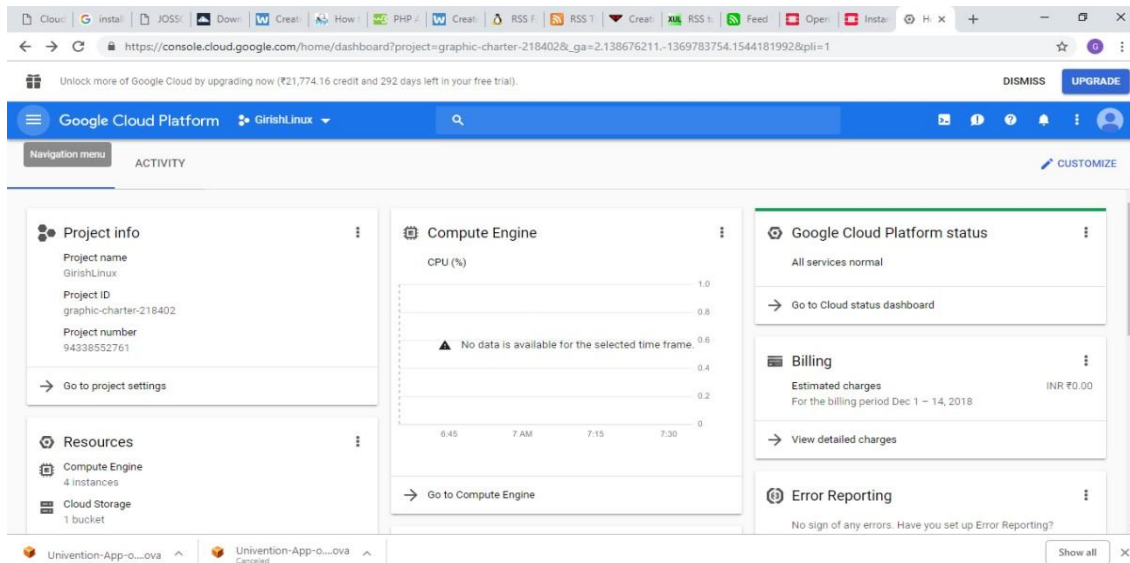
Action Settings and Results [0 actions selected. 0 actions not simulated. 0 actions allowed. 0 actions denied.]

Service	Action	Resource Type	Simulation Resource	Permission
---------	--------	---------------	---------------------	------------

Practical No:- 07

Case study on Amazon EC2/Microsoft Azure/Google Cloud Platform.

Output:-



The screenshot shows the Google Cloud Platform console for the 'Compute Engine' section, specifically the 'VM instances' page. The page displays a table of VM instances with the following columns: Name, Zone, Recommendation, Internal IP, External IP, and Connect. The table contains four instances:

Name	Zone	Recommendation	Internal IP	External IP	Connect
cluster-ad9c-m	us-east1-b		10.142.0.4 (nic0)	None	SSH
cluster-ad9c-w-0	us-east1-b		10.142.0.2 (nic0)	None	SSH
cluster-ad9c-w-1	us-east1-b		10.142.0.5 (nic0)	None	SSH
moodle-1-vm	us-central1-f		10.128.0.3 (nic0)	104.198.204.117	SSH