

Practical 1

Aim : Study of Cloud Computing & Architecture

- 1. Aim:** To study cloud architecture and cloud computing model.
- 2. Objectives:** From this experiment, the student will be able to
 - provide an overview of concepts of Cloud Computing .
 - To encourage students to indulge into research in Cloud Computing.
- 3. Outcomes:** The learner will be able to
 - understand and appreciate cloud architecture.
 - analyze the local and global impact of computing on individuals, organizations, and society.
 - recognize the need for, and an ability to engage in life-long learning.
- 4. Hardware / Software Required:**Ubuntu operating system, Internet
- 5. Theory:**

Cloud computing enables companies to consume compute resources as a utility -- just like electricity -- rather than having to build and maintain computing infrastructures in-house. Cloud computing promises several attractive benefits for businesses and end users.

Three of the main benefits of cloud computing include:

- **Self-service provisioning**: End users can spin up computing resources for almost any type of workload **on-demand**.
- **Elasticity**: Companies can scale up as computing needs increase and then scale down again as demands decreases.

Pay per use: Computing resources are measured at a granular level, allowing users to pay only for the resources and workloads they use.

Cloud computing services can be **Private**, **Public** or **Hybrid**.

Private cloud services are delivered from a business' data center to internal users. This model offers versatility and convenience, while preserving management, control and security. Internal customers may or may not be billed for services through **IT chargeback**.

In the Public cloud model, a third-party provider delivers the cloud service over the Internet. Public cloud services are sold on-demand, typically by the minute or the hour. Customers only pay for the **CPU** cycles, **storage** or **bandwidth** they consume. Leading

public cloud providers include Amazon Web Services ([AWS](#)), Microsoft [Azure](#), IBM/SoftLayer and [Google Compute Engine](#).

Hybrid cloud is a combination of public cloud services and on-premises private cloud – with orchestration and automation between the two.

Companies can run mission-critical workloads or sensitive applications on the private cloud while using the public cloud for workloads that must scale on-demand. The goal of hybrid cloud is to create a unified, automated, scalable environment which takes advantage of all that a public cloud infrastructure can provide, while still maintaining control over mission-critical data.

Types of cloud computing:

IT people talk about three different kinds of cloud computing, where different services are being provided for you. Note that there's a certain amount of vagueness about how these things are defined and some overlap between them.

- Infrastructure as a Service (IaaS) means you're buying access to raw computing hardware over the Net, such as servers or storage. Since you buy what you need and pay-as-you-go, this is often referred to as utility computing. Ordinary web hosting is a simple example of IaaS: you pay a monthly subscription or a per-megabyte/gigabyte fee to have a hosting company serve up files for your website from their servers.
- Software as a Service (SaaS) means you use a complete application running on someone else's system. Web-based email and Google Documents are perhaps the best-known examples. Zoho is another well-known SaaS provider offering a variety of office applications online.
- Platform as a Service (PaaS) means you develop applications using Web-based tools so they run on systems software and hardware provided by another company. So, for example, you might develop your own ecommerce website but have the whole thing, including the shopping cart, checkout, and payment mechanism running on a merchant's server. Force.com (from salesforce.com) and the Google App Engine are examples of PaaS.
- Advantages and disadvantages of cloud computing

Advantages: The pros of cloud computing are obvious and compelling. If your business is selling books or repairing shoes, why get involved in the nitty gritty of buying and maintaining a complex computer system? If you run an insurance office, do you really want your sales agents wasting time running anti-virus software, upgrading word-processors, or worrying about hard-drive crashes? Do you really want them cluttering your expensive computers with their personal emails, illegally shared [MP3](#) files, and naughty YouTube videos—when you could leave that responsibility to someone else? Cloud computing allows you to buy in only the

services you want, when you want them, cutting the upfront capital costs of computers and peripherals. You avoid equipment going out of date and other familiar IT problems like ensuring system security and reliability. You can add extra services (or take them away) at a moment's notice as your business needs change. It's really quick and easy to add new applications or services to your business without waiting weeks or months for the new computer (and its software) to arrive.

Disadvantages: Instant convenience comes at a price. Instead of purchasing computers and software, cloud computing means you buy services, so one-off, upfront capital costs become ongoing operating costs instead. That might work out much more expensive in the long-term.

If you're using software as a service (for example, writing a report using an online word processor or sending emails through webmail), you need a reliable, high-speed, [broadband](#) Internet connection functioning the whole time you're working. That's something we take for granted in countries such as the United States, but it's much more of an issue in developing countries or rural areas where broadband is unavailable.

If you're buying in services, you can buy only what people are providing, so you may be restricted to off-the-peg solutions rather than ones that precisely meet your needs. Not only that, but you're completely at the mercy of your suppliers if they suddenly decide to stop supporting a product you've come to depend on. (Google, for example, upset many users when it [announced](#) in September 2012 that its cloud-based Google Docs would drop support for old but de facto standard Microsoft Office file formats such as .DOC, .XLS, and .PPT, giving a mere one week's notice of the change—although, after public pressure, it later extended the deadline by three months.) Critics charge that cloud-computing is a return to the bad-old days of mainframes and proprietary systems, where businesses are locked into unsuitable, long-term arrangements with big, inflexible companies. Instead of using "generative" systems (ones that can be added to and extended in exciting ways the developers never envisaged), you're effectively using "dumb terminals" whose uses are severely limited by the supplier. Good for convenience and security, perhaps, but what will you lose in flexibility? And is such a restrained approach good for the future of the Internet as a whole? (To see why it may not be, take a look at Jonathan Zittrain's eloquent book [The Future of the Internet—And How to Stop It.](#))

6. Conclusion:

Cloud computing enables a convenient and on-demand network access to a wide range of resources. The different services and also the deployment models allow flexible service provider interaction with minimal human intervention. It saves costs but also can lead to risk issues and suspension of resources when in huge quantity.

Practical 2

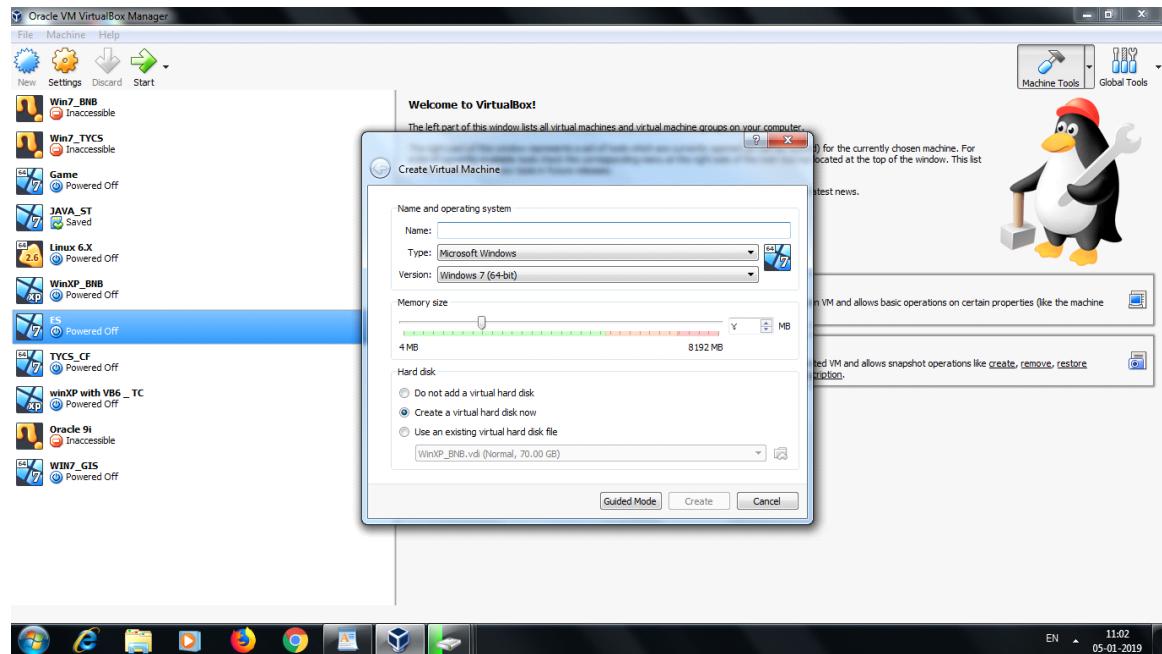
Aim : Installation and Configuration of Virtualization using KVM.

Prerequisite: 1.Virtual Box/Virtual Machine

2. Ubuntu iso file

Steps: Installation of Ubuntu Virtual Box

Step 1:Start the virtualBox and Click on New



Step 2: Now Give the name as Cloud_Computing

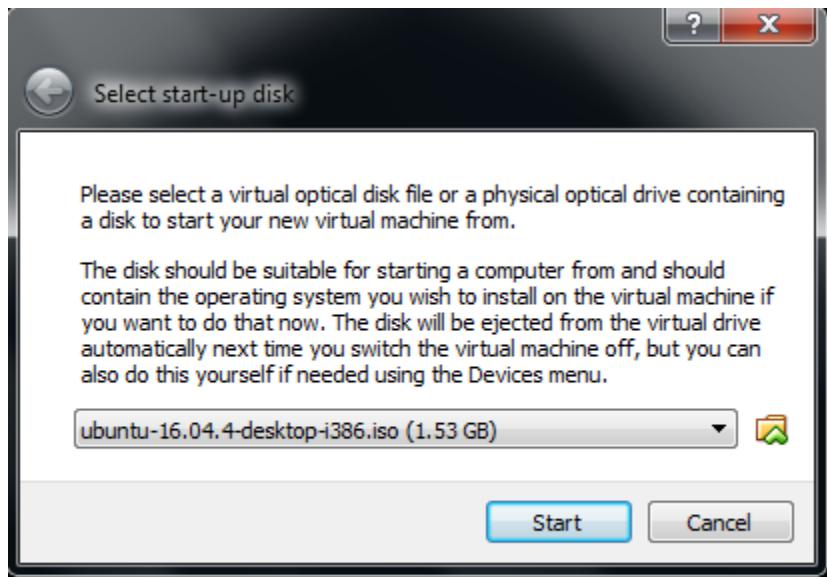
Select type Linux

Version Ubuntu(32bit)/Ubuntu64(bit)

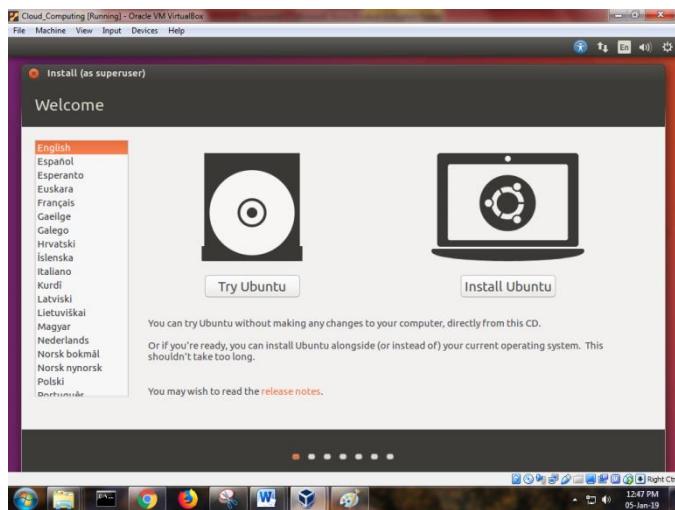
And Select Virtual HardDisk

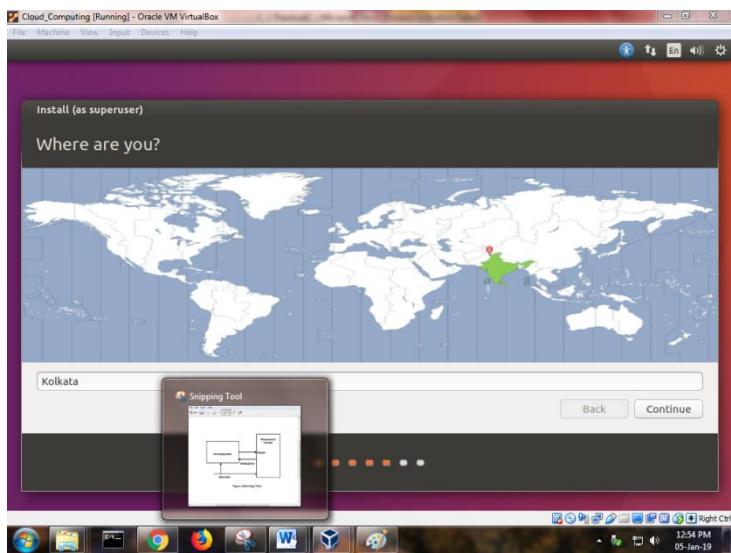
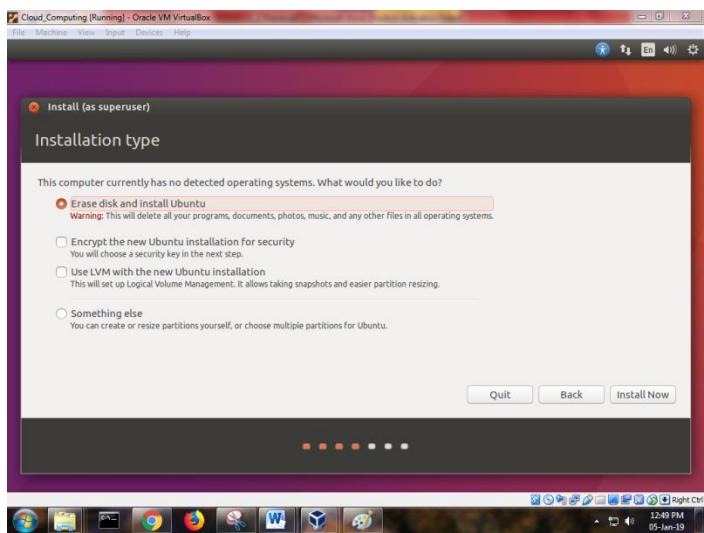
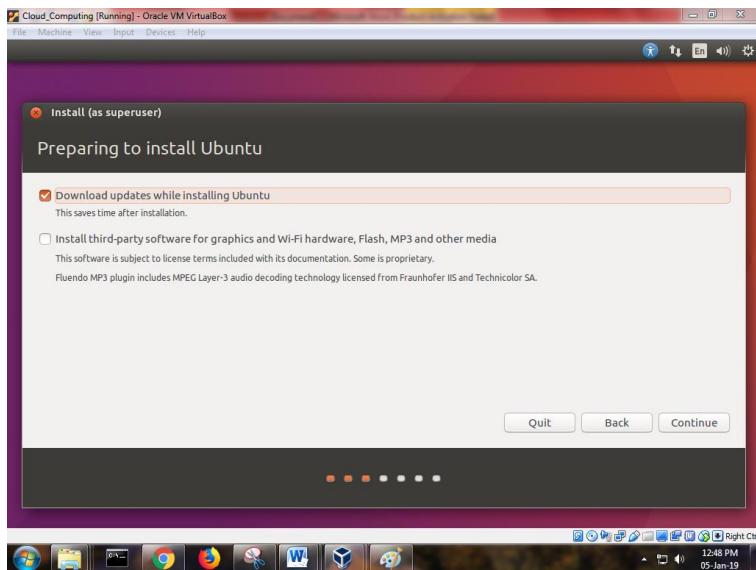
And Click on Create button

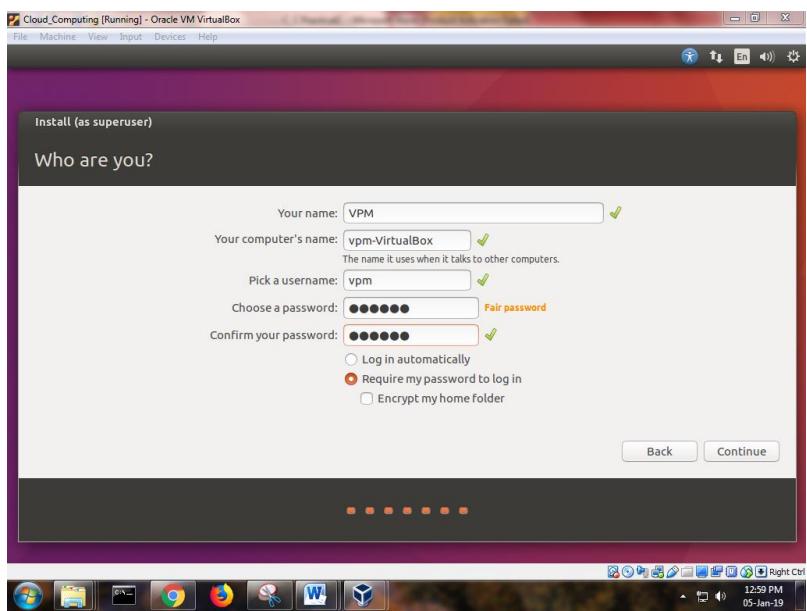
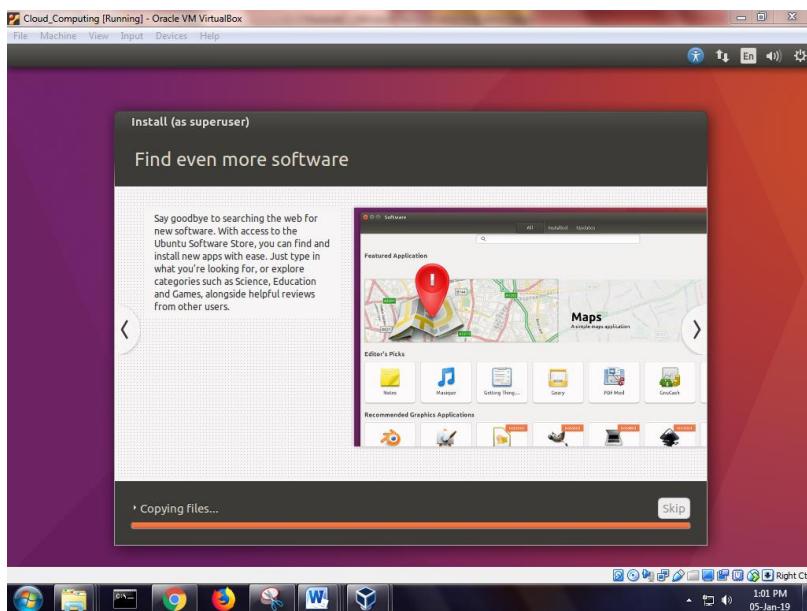
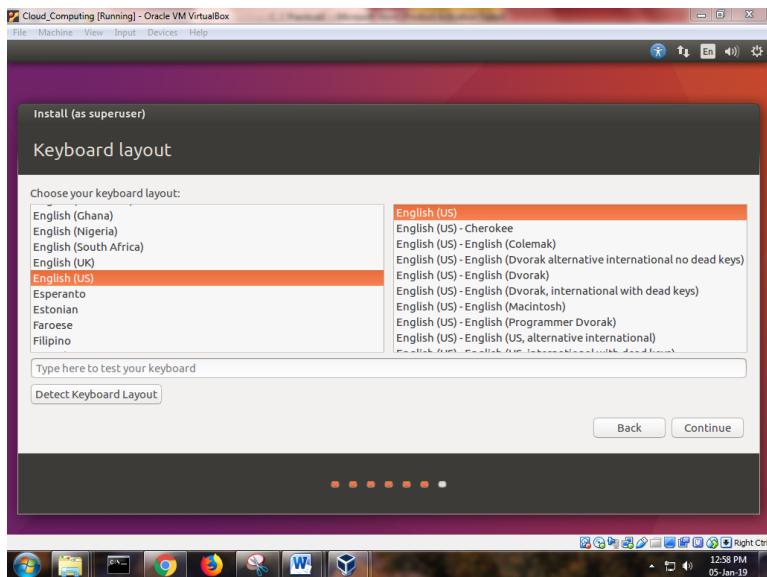
Step 3: Now start the Virual Machine and Select the Ubuntu iso file and click on start

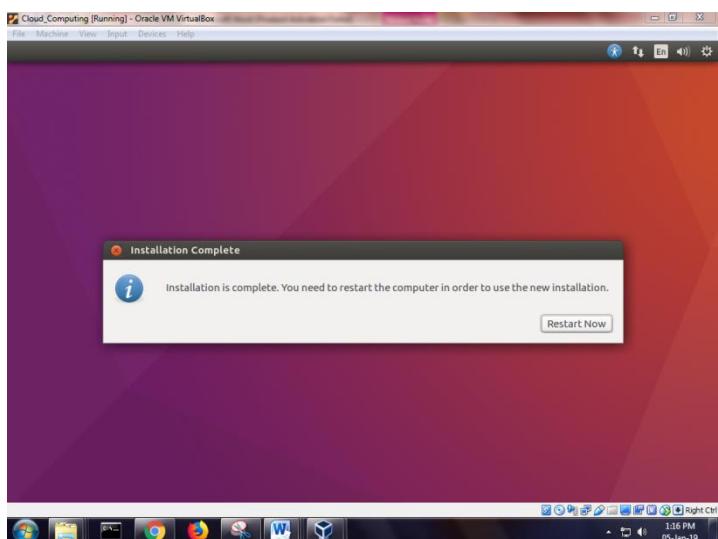
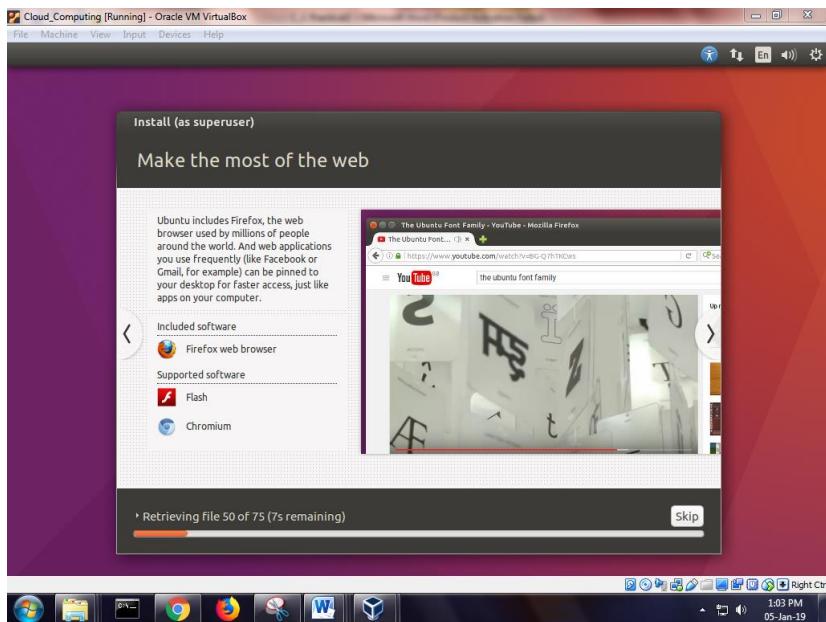
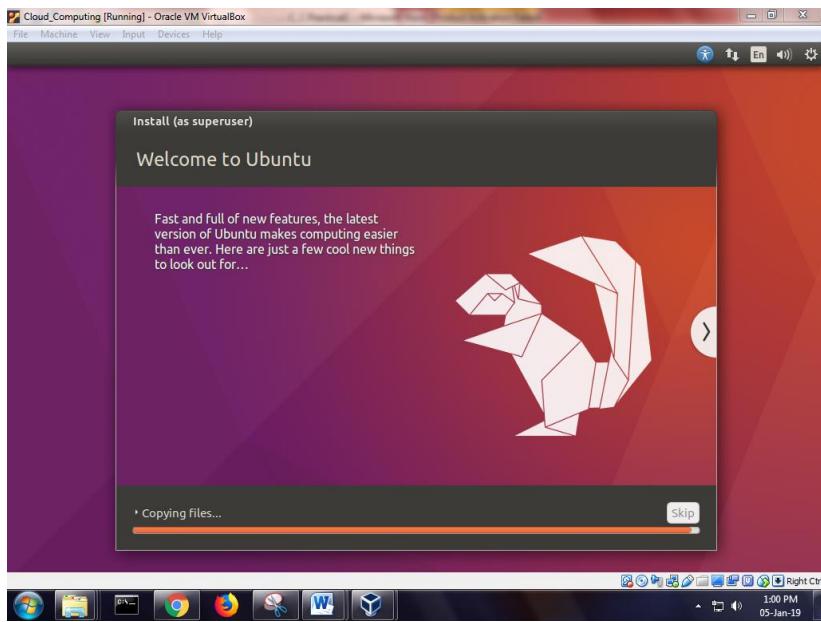


Now see the below ScreenShots for installation



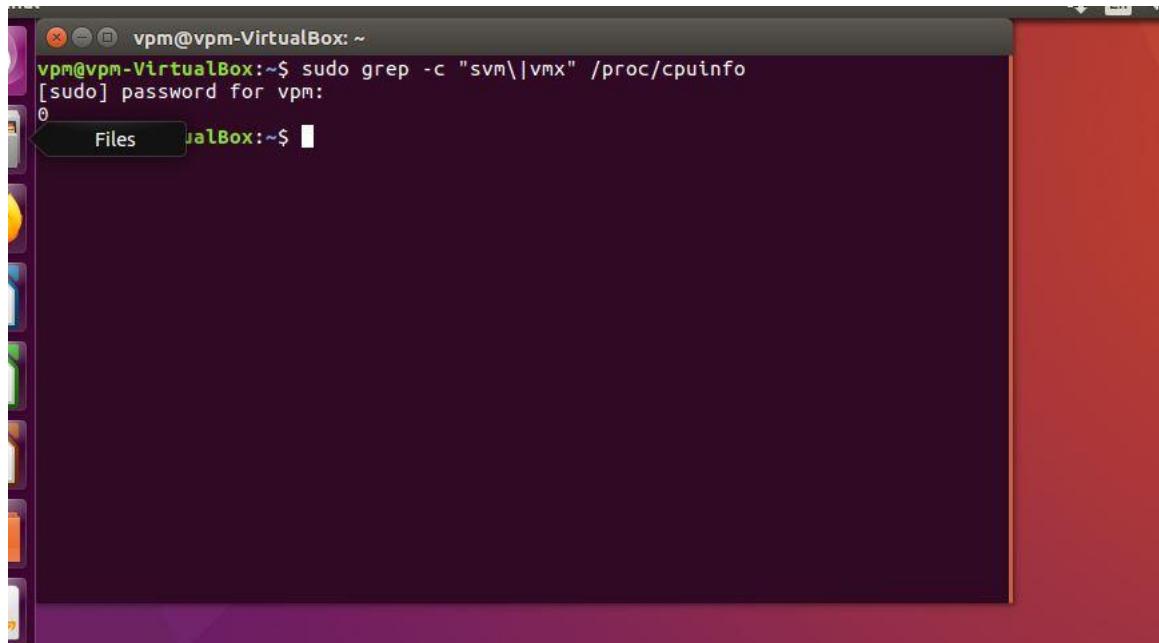




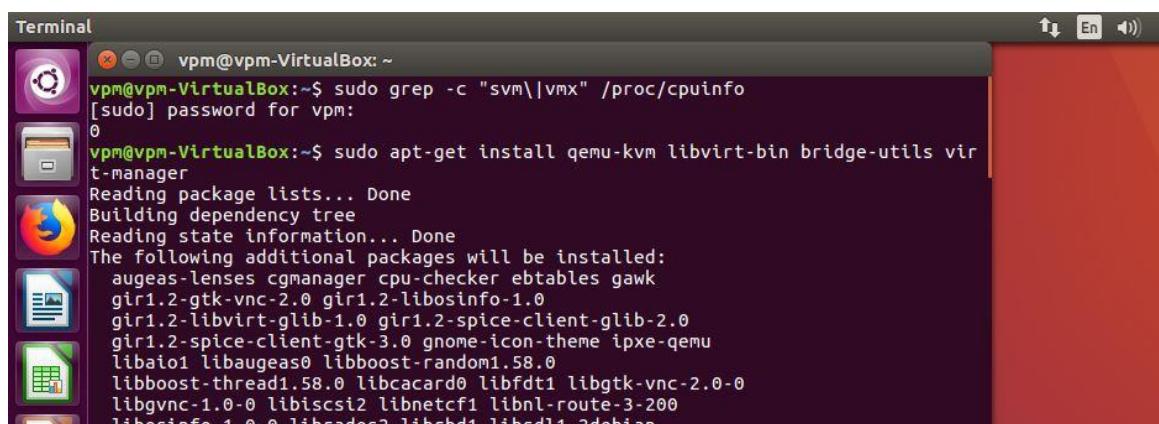


Step4 : Now open the terminal and perform the following command

```
sudogrep -c "svm\|vmx" /proc/cpuinfo
```



```
sudo apt-get install qemu-kvm libvirt-bin bridge-utils virt-manager
```



Sudoadduser shraddha

```
vpm@vpm-VirtualBox:~$ sudo adduser shraddha
Adding user `shraddha' ...
Adding new group `shraddha' (1001) ...
Adding new user `shraddha' (1001) with group `shraddha' ..
Creating home directory `/home/shraddha' ...
Copying files from `/etc/skel' ...
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
Changing the user information for shraddha
Enter the new value, or press ENTER for the default
      Full Name []:
      Room Number []:
      Work Phone []:
      Home Phone []:
      Other []:
Is the information correct? [Y/n] y
```

Sudoadduser shraddha libvirtd

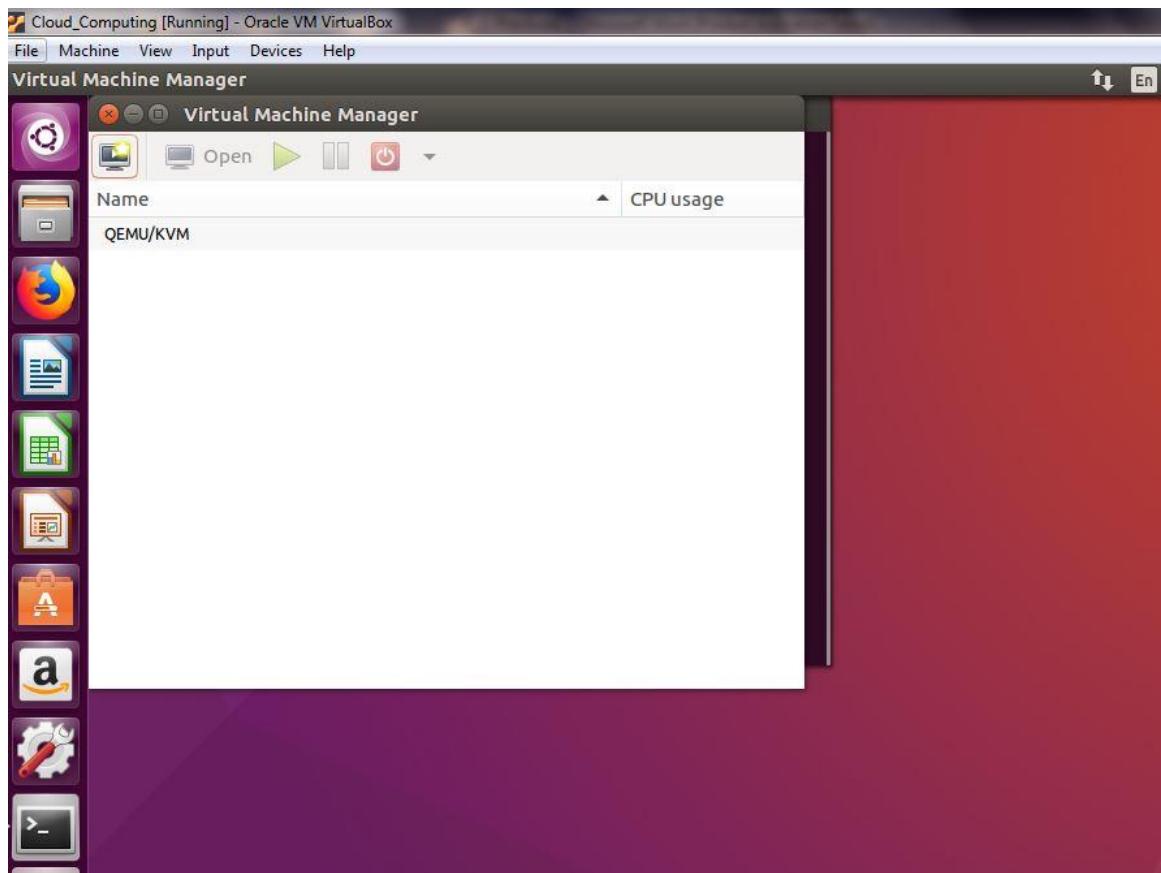
```
Is the information correct? [Y/n] y
vpm@vpm-VirtualBox:~$ sudo adduser shraddha libvirtd
Adding user `shraddha' to group `libvirtd' ...
Adding user shraddha to group libvirtd
Done.
vpm@vpm-VirtualBox:~$
```

virsh -c qemu:///system list

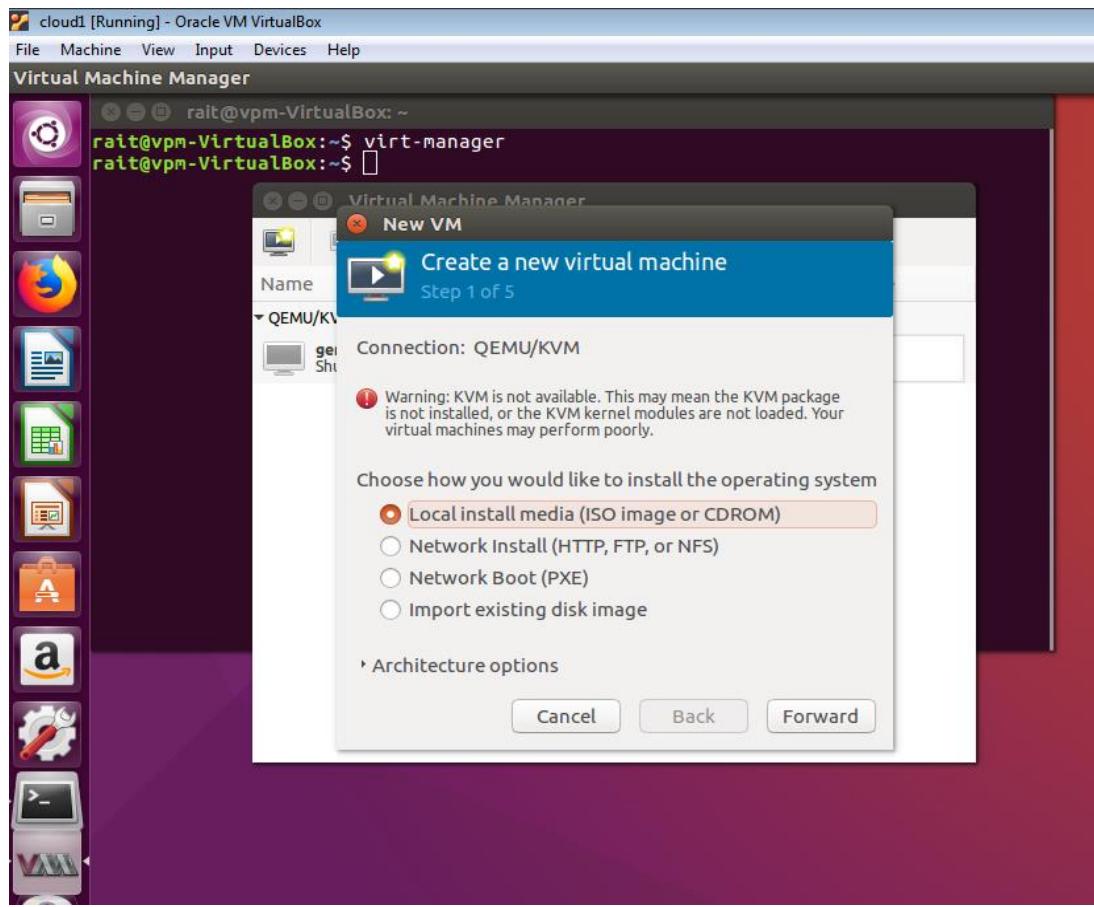
```
shraddha@vpm-VirtualBox:~$ virsh -c qemu:///system list
  Id   Name           State
  --  --
shraddha@vpm-VirtualBox:~$
```

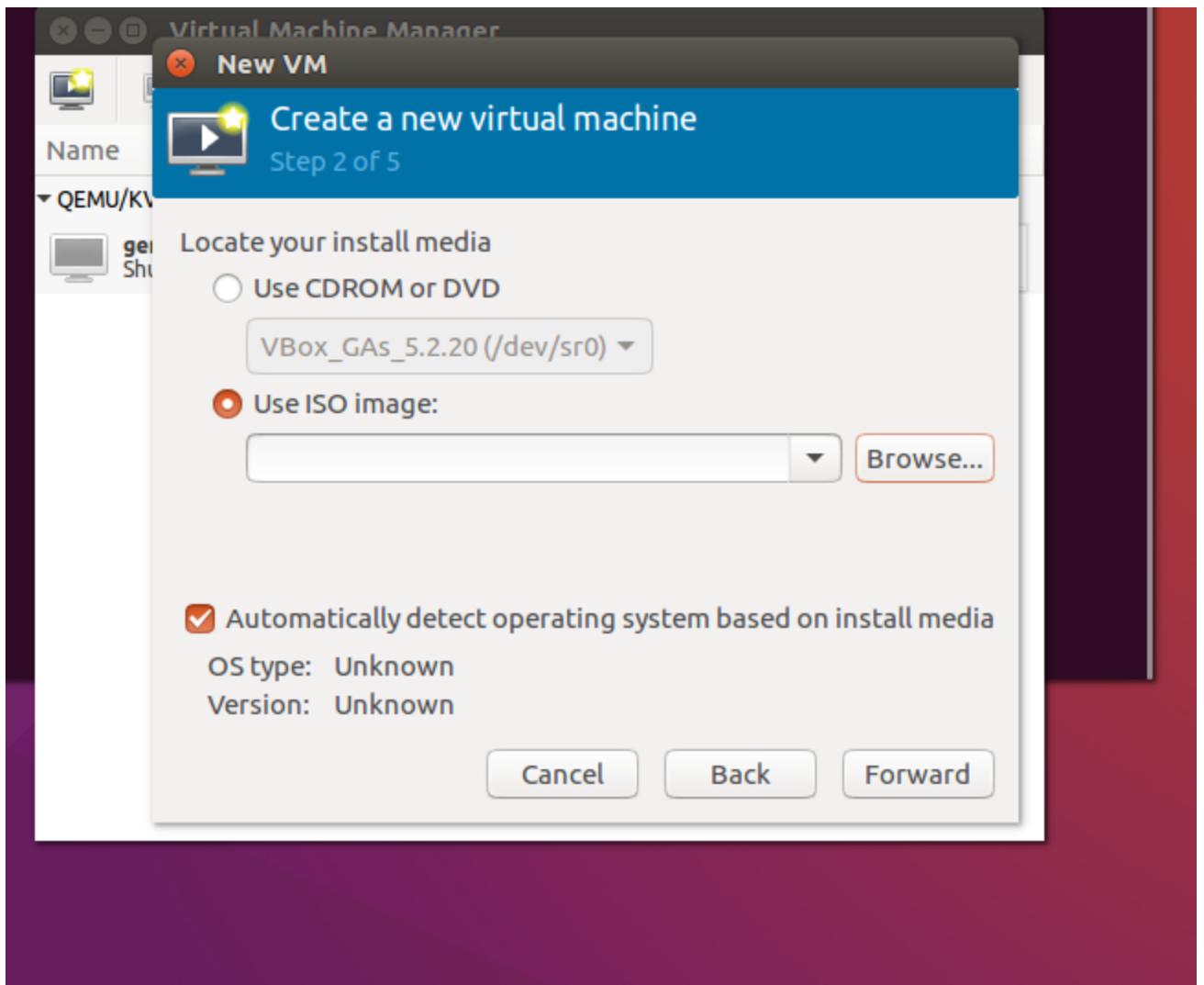
Virt-manager

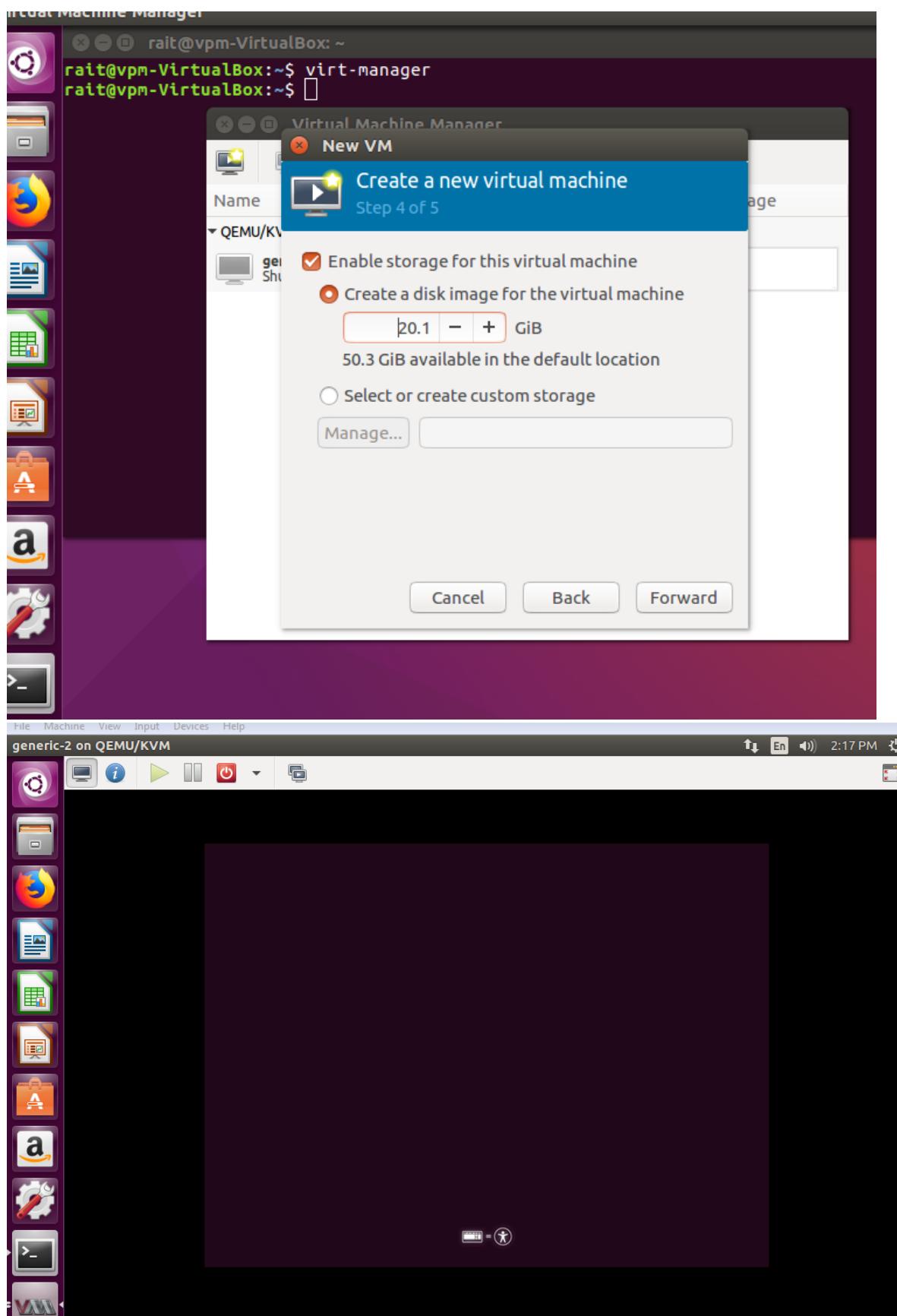
```
shraddha@vpm-VirtualBox:~$ virt-manager
shraddha@vpm-VirtualBox:~$
```

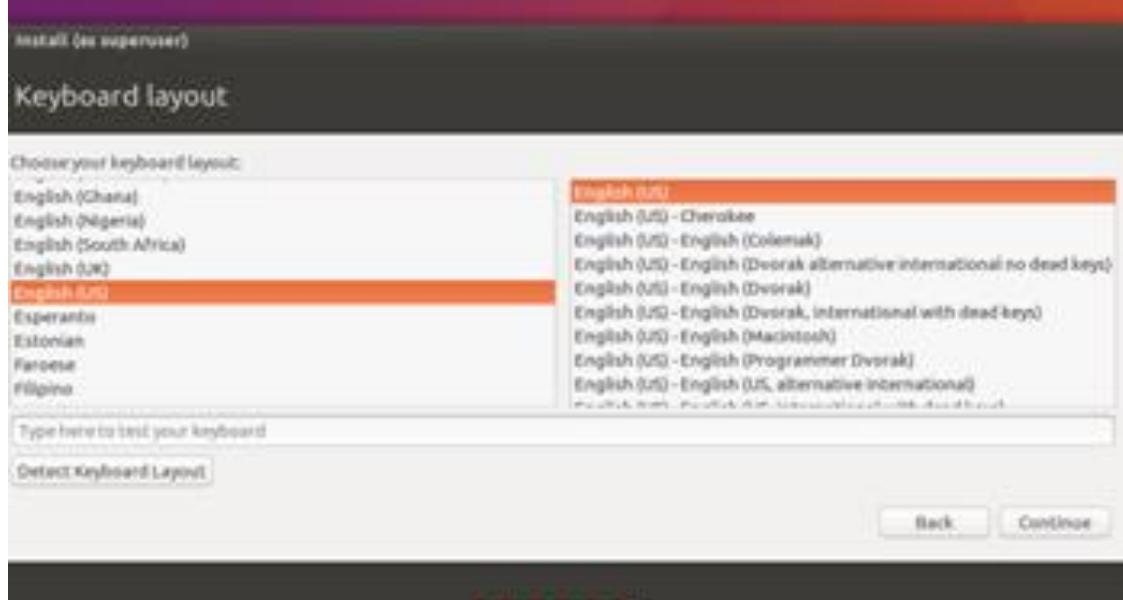


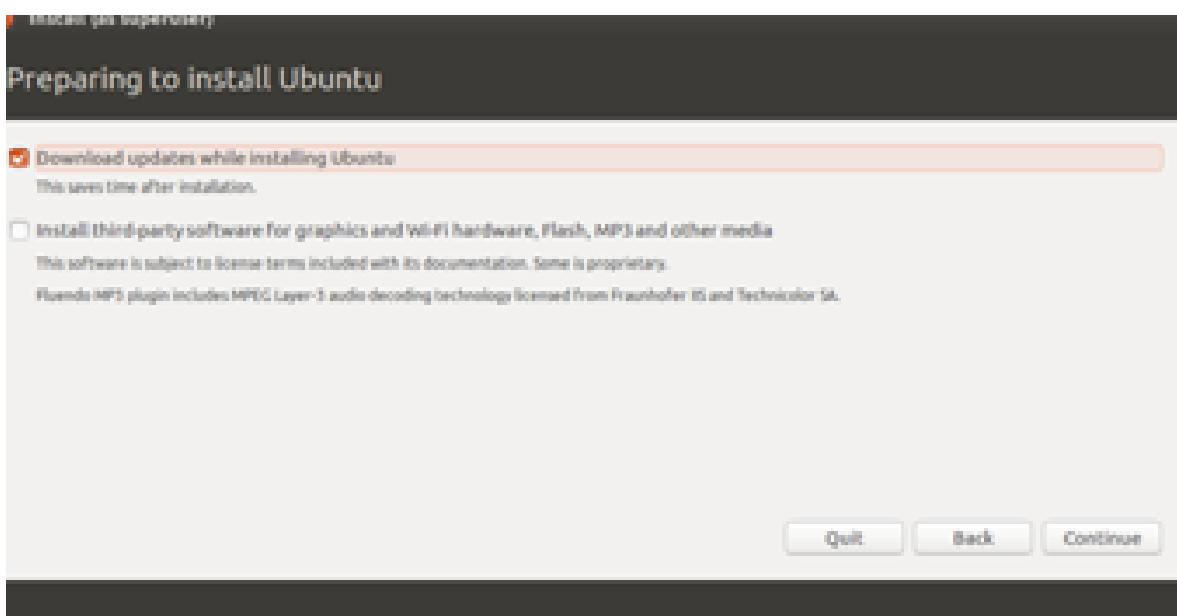
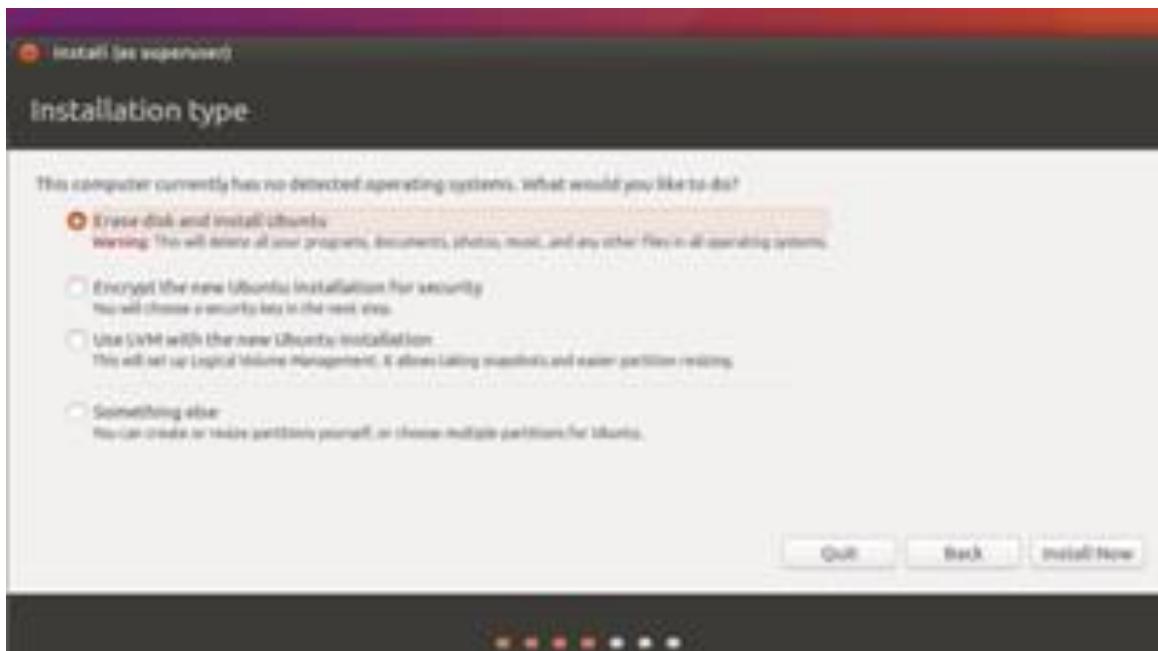
Click on new virtual machine in qemu and perform the following step

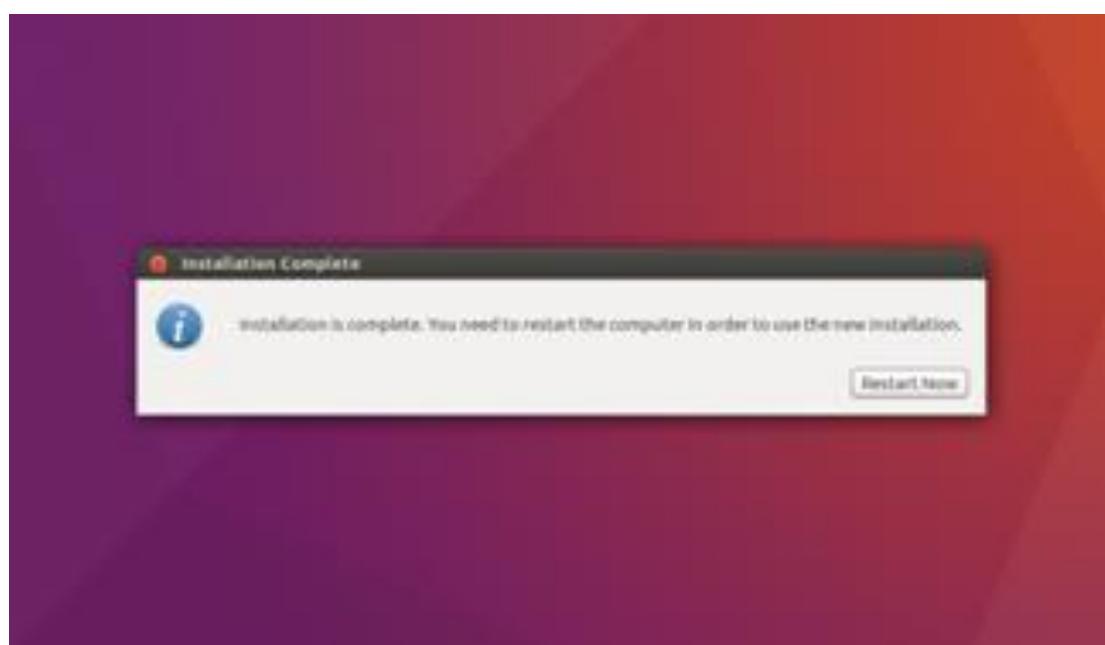




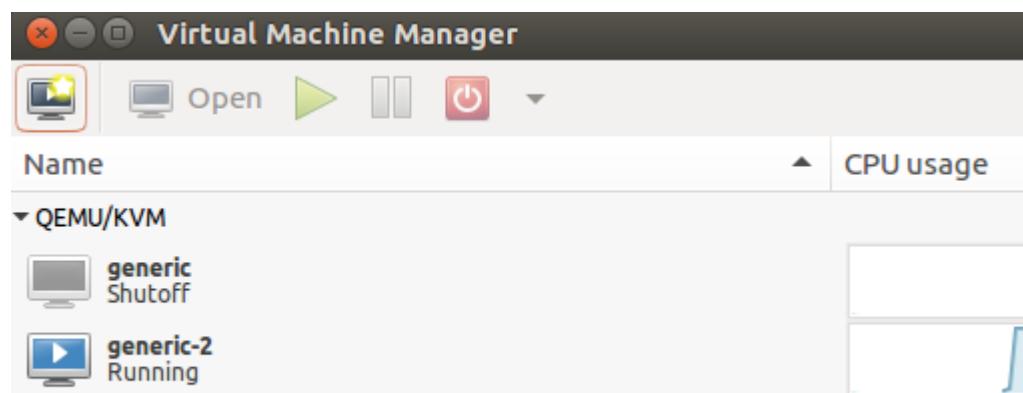








After that you will get final output



PRACTICAL 3

Aim: Study and Implementation of Infrastructure as a Service

Theory:

Infrastructure as a service (IaaS) is a form of cloud computing that provides virtualized computing resources over the internet.

IaaS is one of the three main categories of cloud computing services, alongside software as a service (SaaS) and platform as a service (PaaS)

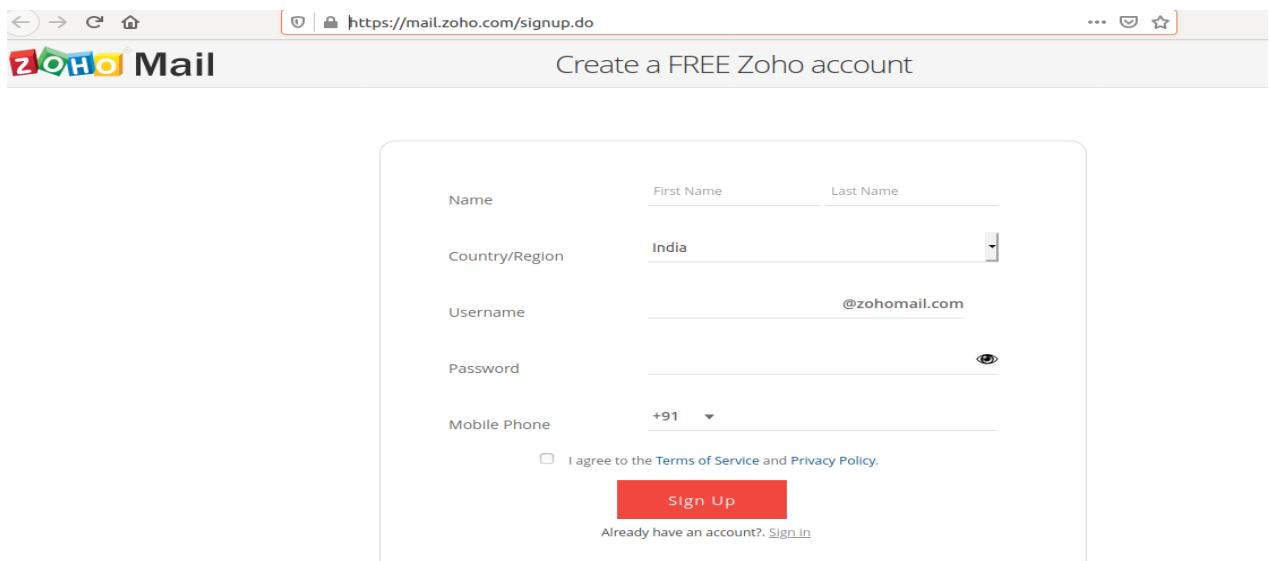
IaaS quickly scales up and down with demand, letting you pay only for what you use. It helps you avoid the expense and complexity of buying and managing your own physical servers and other datacenter infrastructure.

Each resource is offered as a separate service component, and you only need to rent a particular one for as long as you need it. A cloud computing service provider, such as Azure, manages the infrastructure, while you purchase, install, configure, and manage your own software—operating systems, middleware, and applications.

Procedure :

Steps:

1. Open link <https://mail.zoho.com/signup.do>

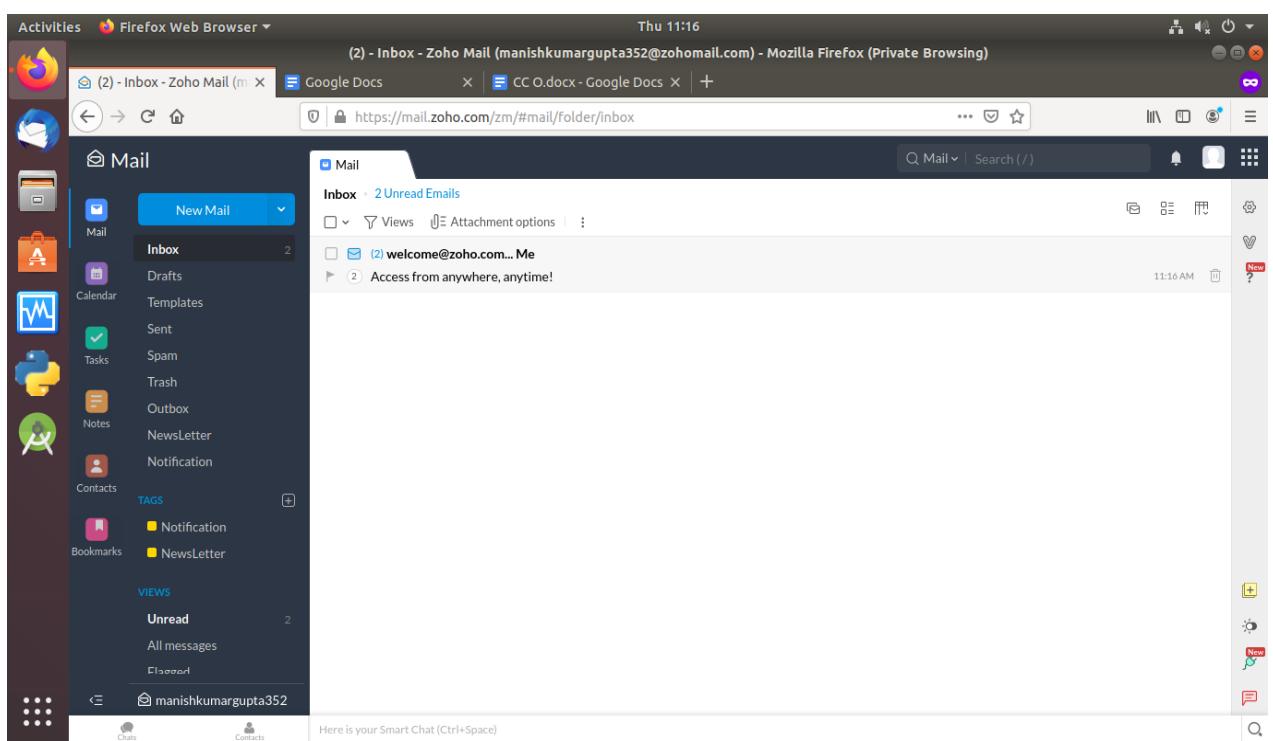


The screenshot shows a web browser displaying the Zoho Mail sign-up page at <https://mail.zoho.com/signup.do>. The page has a light gray header with the Zoho logo and the text "Create a FREE Zoho account". Below the header is a large white form with fields for Name, Country/Region, Username, Password, and Mobile Phone. There is also a checkbox for agreeing to Terms of Service and Privacy Policy, and a "Sign Up" button. At the bottom right of the form, there is a link to "Already have an account? [Sign in](#)".

2. Fill data

Name	Manish Gupta
Country/Region	India
Username	manishkumargupta352 @zohomail.com
Password	
Mobile Phone	+91 8888888885
<input checked="" type="checkbox"/> I agree to the Terms of Service and Privacy Policy .	
Sign Up	
Already have an account? Sign in	

3. Verify the otp
4. After that 'Remind me later'
5. Creating a zoho account is done



The screenshot shows the Zoho Mail interface within a Mozilla Firefox browser window. The title bar indicates it's a private browsing session. The main area displays the inbox with two unread emails from 'welcome@zoho.com'. The sidebar on the left provides navigation links for various Zoho services like Mail, Drafts, Templates, Sent, and others. The status bar at the bottom shows the user's name 'manishkumargupta352'.

6. Now open <https://platform9.com/>

platform9.com

Report: 2022 Enterprise Trends in Cloud-Native [Download Now](#)

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7. click on sign up for free

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PLATFORM9

Tell us more about yourself

FIRST NAME: Babita

LAST NAME: Doda

PLATFORM9 ACCOUNT NAME: babita6

ACCOUNT EMAIL: babita6666@zohomail.com

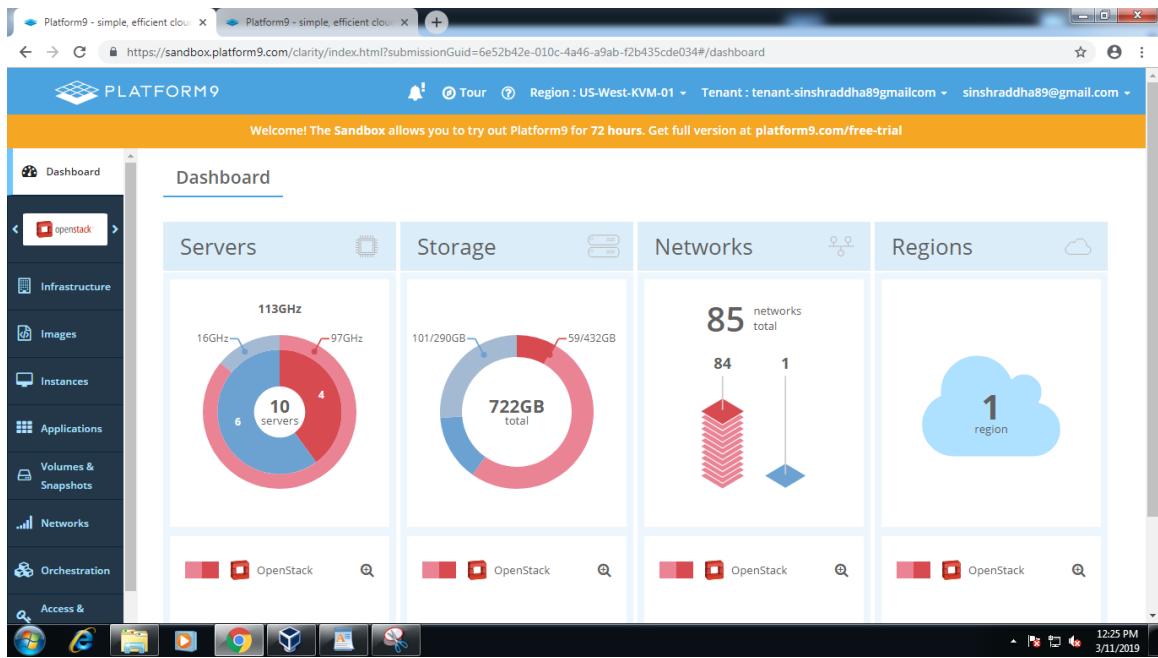
By signing up, I agree to the [Terms of Service](#) and [Privacy Policy](#)

Continue →



8. Now click on continue

9. fill all the details and click on start
10. Give the User Name and Password and click on login
11. Give business email(Zoho Email id), you will receive mail from platform9. I with the url will be given.
12. Click on that url and login to platform9
13. openstack platform look like this



14. Now click on Instance on left side

The screenshot shows the Instances page with the following interface elements:

- Header:** Welcome! The Sandbox allows you to try out Platform9 for 72 hours. Get full version at p
- Left Sidebar:** Includes links for Dashboard, Infrastructure, Images, Instances (highlighted with a blue circle), Applications, Volumes & Snapshots, Networks, and Orchestration.
- Top Navigation:** Instances (selected) and Server Groups.
- Main Content:**
 - Instances:** Shows 0 instances.
 - States:** Shows 0 selected instances with buttons for Start, Stop, Reboot, Snapshot, Console, Delete, Power, and Setting.
 - Flavors:** (Empty)
- Message:** No instances were found.

15. And click on Add VM instance

Welcome! The Sandbox allows you to try out Platform9 for 72 hours. Get full version at platform9.com/free-trial

Server Groups

States Flavors Images

Start Stop Reboot Snapshot Console Delete Power Settings Network Refresh More

Rows: 10

were found.

select Ubuntu 16.0.4 and click on next

click m1.small and click on next

select Auto allocate network and click on next

give instance name and click on next

Basic Configuration

Configure the Instance to suit your requirements

Instance Name* TYCS

SSH Key None

Server Group None

Security Groups* default Default security group

Create multiple instances?

BACK NEXT FINISH

now click on finish

Instance	tycs
Image	ubuntu-16.04-amd64.img
Flavor	m1.small
Networks	auto_allocated_network
SSH Key	
Server Group	
Config Script	

BACK **CREATE INSTANCE**

Now Click on CREATE INSTANCE

✓ Your VM has been scheduled for creation

Cloud-init Password

If this is a **Windows VM**, below will be the default credentials for logging in.

It is important to store this password now as this data will not be accessible once you exit this wizard.

Instance	Windows Username	Password
TYCS	Admin	cZNMs59jgodX

OK

virtual machine created successfully

16. click on Instance tab and check the virtual machine

Instances	States	Flavors	Images
1 instance	1 active	1 m1.small	1 ubuntu-16.04-amd64.img

Instance	Owner	Tenant	IP Addresses	State	Flavor	Created On	Host	Name	Host
TYCS	sinshradha89@gmail.com	tenant-sinshradha89@gmail.com	auto_allocated_network 10.30.1.109	active	m1.small	ubuntu-16.04-amd64.img	3/11/2019 12:34:41 PM +0530	kvm02.sandbox.platform9.net	646d243b8-9b47-08ba5

17. click on that machine it will give all the information

18. For creating Tenant and user Select tenant and user tab present in left side

Name (4)	Description	Compute Usage	Block Storage U
DevOps	DevOps Tenant	Cores 0% - 0/10Cores used RAM 5% - 1.0/19.5GB used Storage 17% - 50/300GB used Instances 0% - 0/10Instances used	Block Storage 1% - 5/500GB us Volumes 0% - 0/10Volume Volume Snapshot 0% - 0/10Volume Max Volume Size GB
Platform Engineering	Platform Engineering Tenant	Cores 68% - 27/40Cores used	Block Storage 80 used / unlimit

now click on a Create new Tenant

+ SET DEFAULT QUOTAS + CREATE A NEW TENANT

Compute Usage	Block Storage Usage	Network Usage
Cores 0%	Block Storage 4%	Networks 20%

fill the details and click on next

Welcome! The Sandbox allows you to try out Platform9 for 72 hours. Get full version at platform9.com/free-trial

Tenants

Add Tenant

Basic > Quotas > Networks > Flavors > Users

Name*

Description

US-West-KVM-01 region

VM Lease Policy No Lease Default Lease Days:Hours:Minutes 0 0 ?

CANCEL **NEXT**

Now click on set Default quota and click on next

Welcome! The Sandbox allows you to try out Platform9 for 72 hours. Get full version at platform9.com/free-trial

Tenants

US-West-KVM-01 region

SET TO DEFAULTS **SET TO 0** **SET TO UNLIMITED**

Compute Quotas

Cores	<input type="text" value="20"/>	<input type="checkbox"/> unlimited
RAM	<input type="text" value="51200"/> MB	<input type="checkbox"/> unlimited
Storage	<input type="text" value="200"/> GB	<input type="checkbox"/> unlimited
Instances	<input type="text" value="10"/>	<input type="checkbox"/> unlimited

Block Storage Quotas

CANCEL **BACK** **NEXT**

select the network and click on next

Tenants

Add Tenant

Basic > Quotas > Networks > Flavors > Users

US-West-KVM-01 region

This tenant will have access to the following networks. To add a new network you will need to create a new network in this region and assign it to this tenant after tenant creation.

External Networks

- Public Internet

CANCEL BACK NEXT

select the public flavor and click on next

Private Flavors

Public Flavors

Flavor	Host Aggregate Tags	VCPUs	RAM (MB)	Disk (GB)
m1.large		4	8192	80
m1.medium		2	4096	40
m1.small		1	2048	20
m1.tiny		1	512	1
m1.xlarge		8	16384	160

CANCEL BACK NEXT

click on create tenant

ADD TENANT

Basic > Quotas > Networks > Flavors > Users

Del Which users can access this tenant?

User sinshraddha89@gmail.com Role Administrator

CANCEL BACK CREATE TENANT

Netw
20
Su
46
Re
40
Po
20
Fl
20
Se
50
Se
50

Practical 4

Aim: Study and implementation of Storage as a Service

- 1. Aim:** To study and implementation of Storage as a Service
- 2. Objectives:** From this experiment, the student will be able to
 - To make the students understand use of cloud as Platform, Storage as a service.
 - To learn the efficient tools to implement the technique
- 3. Outcomes:** The learner will be able to
 - Implement Infrastructure , storage as a Service.
 - To understand, identify, analyze and design the problem, implement and validate the solution including both hardware and software.
 - To use cloud techniques, and tools necessary for computing practice.
- 4. Hardware / Software Required:**Ubuntu operating system, Virtual machine, WAMP/ZAMP server, Any tool or technology can be used for implementation of web application e.g., JAVA, PHP, etc
- 5. Theory:**

Collaborating on Word Processing:

You use your word processor most likely some version of Microsoft Word—to write memos, letters, thank you notes, fax coversheets, reports, newsletters, you name it. The word processor is an essential part of our computing lives. There are a number of web-based replacements for Microsoft's venerable Word program available. All of these programs let you write your letters and memos and reports from any computer, no installed software necessary, as long as that computer has a connection to the Internet. And every document you create is housed on the web, so you don't have to worry about taking your work with you. It's cloud computing at its most useful, and it's here today.

Exploring Web-Based Word Processors:

There are a half-dozen or so really good web-based word processing applications, led by the ever-popular Google Docs. We'll start our look at these applications with Google's application and work through the rest in alphabetic order.

Google Docs:

Google Docs (docs.google.com) is the most popular web-based word processor available today. Docs is actually a suite of applications that also includes Google Spreadsheets and Google Presentations; the Docs part of the Docs suite is the actual word processing application. Like all things Google, the Google Docs interface is clean and, most important, it works well without imposing a steep

learning curve. Basic formatting is easy enough to do, storage space for your documents is generous, and sharing collaboration version control is a snap to do. When you log in to Google Docs with your Google account, you see the page. This is the home page for all the Docs applications (word processing, spreadsheets, and presentations); all your previously created documents are listed on this page. The leftmost pane helps you organize your documents. You can store files in folders, view documents by type (word processing document or spreadsheet), and display documents shared with specific people.

Collaborating on Spreadsheets :

If the word processor is the most-used office application, the spreadsheet is the second most-important app. Office users and home users alike use spreadsheets to prepare budgets, create expense reports, perform “what if” analyses, and otherwise crunch their numbers. And thus we come to those spreadsheets in the cloud, the web-based spreadsheets that let you share your numbers with other users via the Internet. All the advantages of webbased word processors apply to web-based spreadsheets— group collaboration, anywhere/anytime access, portability, and so on.

Exploring Web-Based Spreadsheets:

Several web-based spreadsheet applications are worthy competitors to Microsoft Excel. Chief among these is Google Spreadsheets, which we'll discuss first, but there are many other apps that also warrant your attention. If you're at all interested in moving your number crunching and financial analysis into the cloud, these web-based applications are worth checking out.

Google Spreadsheets

Google Spreadsheets was Google's first application in the cloud office suite first known as Google Docs & Spreadsheets and now just known as Google Docs. As befits its longevity, Google Spreadsheets is Google's most sophisticated web-based application. You access your existing and create new spreadsheets from the main Google Docs page (docs.google.com). To create a new spreadsheet, click the New button and select Spreadsheet; the new spreadsheet opens in a new window and you can edit it.

Collaborating on Presentations:

One of the last components of the traditional office suite to move into the cloud is the presentation application. Microsoft PowerPoint has ruled the desktop forever, and it's proven difficult to offer competitive functionality in a web-based application; if nothing else, slides with large graphics are slow to upload and download in an efficient manner. That said, there is a new crop of web-based presentation applications that aim to give PowerPoint a run for its money. The big players, as might be expected, are Google and Zoho, but there are several other applications that are worth considering if you need to take your presentations with you on the road—or collaborate with users in other locations.

Google Presentations:

If there's a leader in the online presentations market, it's probably Google Presentations, simply because of Google's dominant position with other

webbased office apps. Google Presentations is the latest addition to the Google Docs suite of apps, joining the Google Docs word processor and Google Spreadsheets spreadsheet application. Users can create new presentations and open existing ones from the main Google Docs page (docs.google.com). Open a presentation by clicking its title or icon. Create a new presentation by selecting New, then Presentation. Your presentation now opens in a new window on your desktop. What you do get is the ability to add title, text, and blank slides; a PowerPoint-like slide sorter pane; a selection of predesigned themes. the ability to publish your file to the web or export as a PowerPoint PPT or Adobe PDF file; and quick and easy sharing and collaboration, the same as with Google's other web-based apps.

Collaborating on Databases:

A database does many of the same things that a spreadsheet does, but in a different and often more efficient manner. In fact, many small businesses use spreadsheets for database-like functions. A local database is one in which all the data is stored on an individual computer. A networked database is one in which the data is stored on a computer or server connected to a network, and accessible by all computers connected to that network. Finally, an online or web-based database stores data on a cloud of servers somewhere on the Internet, which is accessible by any authorized user with an Internet connection. The primary advantage of a web-based database is that data can easily be shared with a large number of other users, no matter where they may be located. When your employee database is in the cloud.

Exploring Web-Based Databases:

In the desktop computing world, the leading database program today is Microsoft Access. (This wasn't always the case; dBase used to rule the database roost, but things change over time.) In larger enterprises, you're likely to encounter more sophisticated software from Microsoft, Oracle, and other companies. Interestingly, none of the major database software developers currently provide web-based database applications. Instead, you have to turn to a handful of start-up companies (and one big established name) for your online database needs.

Cebase

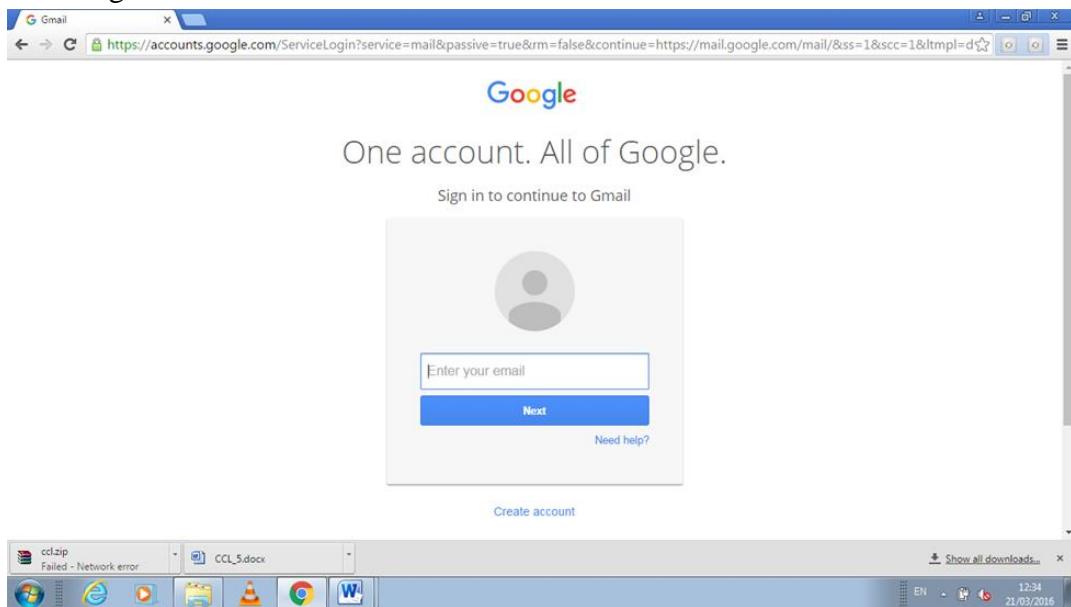
Cebase (www.cebase.com) lets you create new database applications with a few clicks of your mouse; all you have to do is fill in a few forms and make a few choices from some pull-down lists. Data entry is via web forms, and then your data is displayed in a spreadsheet-like layout. You can then sort, filter, and group your data as you like. Sharing is accomplished by clicking the Share link at the top of any data page. You invite users to share your database via email, and then adjust their permissions after they've accepted your invitation.

6. Result:

SNAPSHOTS

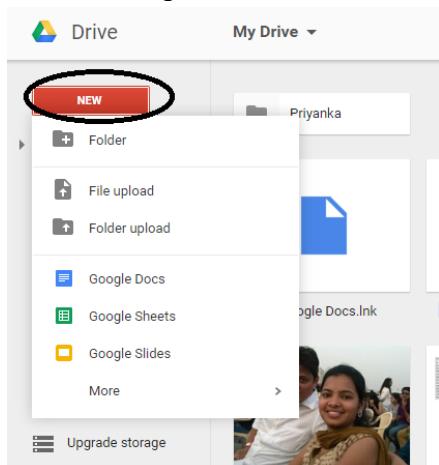
Step 1: Sign into the Google Drive website with your Google account.

If you don't have a Google account, you can create one for free. Google Drive will allow you to store your files in the cloud, as well as create documents and forms through the Google Drive web interface.



Step 2: Add files to your drive.

There are two ways to add files to your drive. You can create Google Drive documents, or you can upload files from your computer. To create a new file, click the CREATE button. To upload a file, click the "Up Arrow" button next to the CREATE button.



Step 3: Change the way your files are displayed.

You can choose to display files by large icons (Grid) or as a list (List). The List mode will show you at a glance the owner of the document and when it was last modified. The Grid mode will show each file as a preview of its first page. You can change the mode by clicking the buttons next to the gear icon in the upper right corner of the page.
// List Mode

Google Drive - My Drive

Name	Owner	Last modified	File size
Priyanka	me	Mar 14, 2016 me	-
Google Docs.lnk	me	Mar 5, 2015 me	2 KB
Google Sheets.lnk	me	Mar 5, 2015 me	2 KB
Google Slides.lnk	me	Mar 5, 2015 me	2 KB
How to get started with Drive	me	Jan 23, 2015 me	3 MB
SA List of Experiments (1)	me	Jul 29, 2015 me	-
sa-writeups	me	Jul 29, 2015 me	-
WP_20150405_006.jpg	me	Dec 18, 2015 me	1 MB
परवेत team.xlsx	me	Apr 27, 2015 me	11 KB
महिला सक्षमीकरण विषय.docx	me	Apr 27, 2015 me	14 KB

Inbox (3,589) - sheetal.lah... My Drive - Google Drive

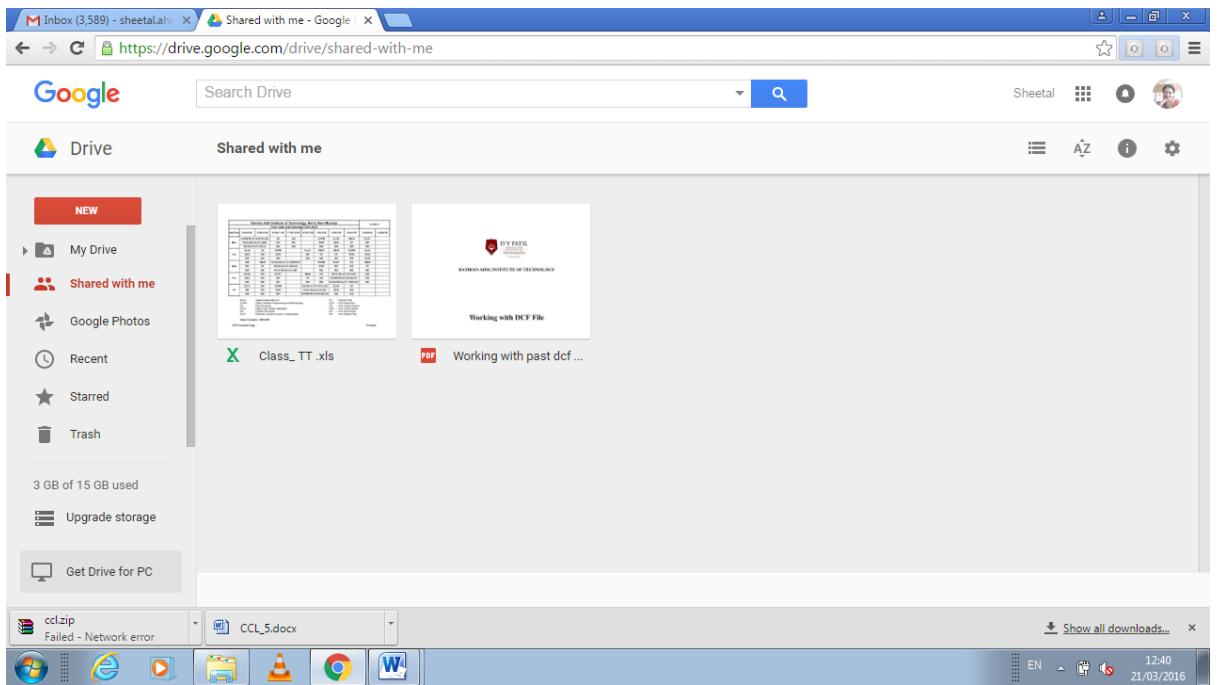
Name	Owner	Last modified	File size
Network Protocols and Networking	Sheetal	01-Lect-09-09-11	-
TCP/IP Protocol	Sheetal	02-Lect-10-08-11	-
Finding the block	Sheetal	05-Lect-23-08-11	-
Network Addresses	Sheetal	3-Lect-16-08-11	-
baby2.JPG	Sheetal	4-Lect-17-08-11	-
Comparison of agent ...	Sheetal	copy of dessertation t...	-
copy of dessertation t...	Sheetal	copy of dessertation t...	-
domain	Sheetal		-

Step 4: Use the navigation bar on the left side to browse your files.

“My Drive” is where all of your uploaded files and folders are stored. “Shared with Me” are documents and files that have been shared with you by other Drive users. “Starred” files are files that you have marked as important, and “Recent” files are the ones you have most recently edited.

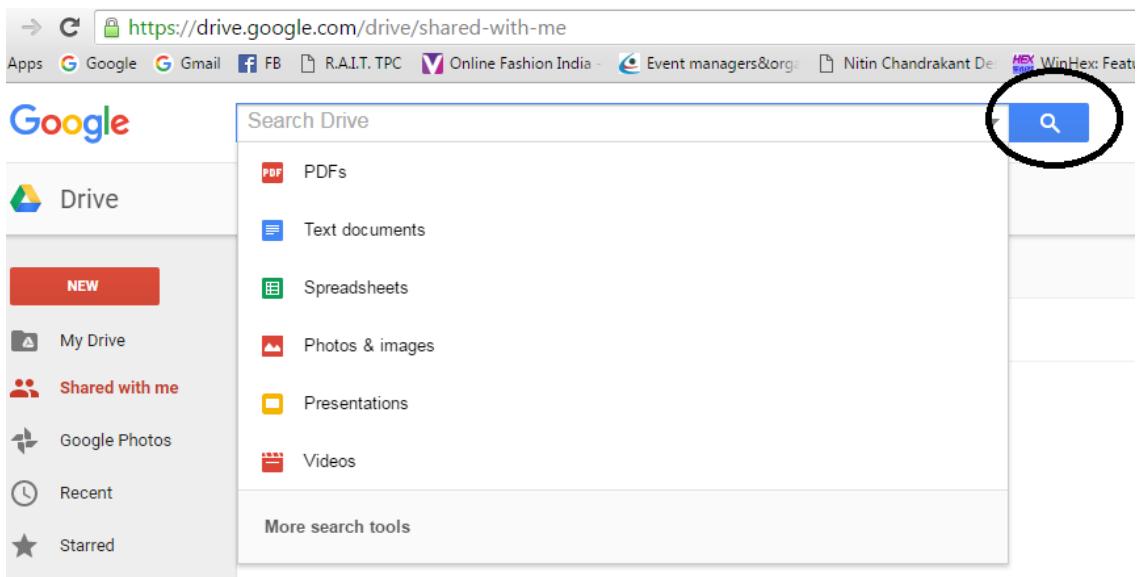
- You can drag and drop files and folders around your Drive to organize them as you see fit.

- Click the Folder icon with a “+” sign to create a new folder in your Drive. You can create folders inside of other folders to organize your files.



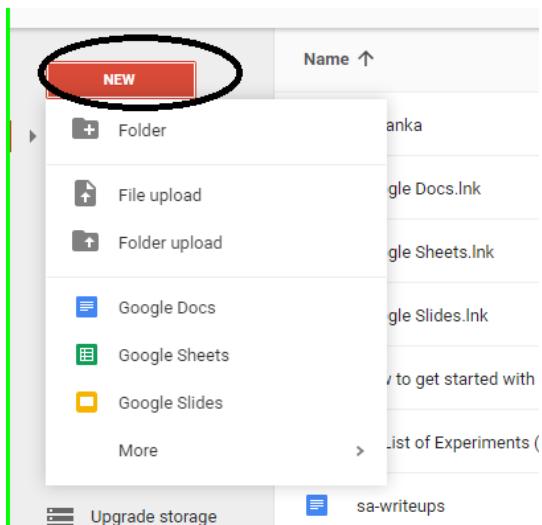
Step 5: Search for files.

You can search through your Google Drive documents and folders using the search bar at the top of your page. Google Drive will search through titles, content, and owners. If a file is found with the exact term in the title, it will appear under the search bar as you type so that you can quickly select it.



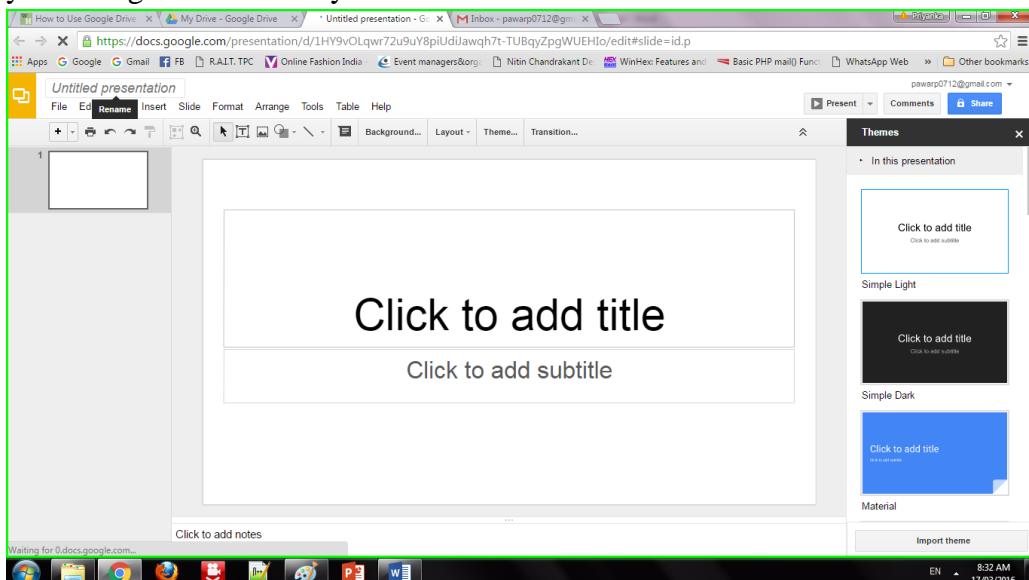
Step 1: Click the NEW button.

A menu will appear that allows you to choose what type of document you want to create. You have several options by default, and more can be added by clicking the “More” link at the bottom of the menu:



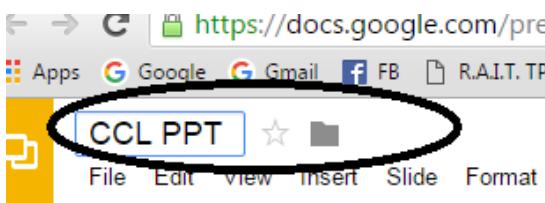
Step 2: Create a new file.

Once you've selected your document type, you will be taken to your blank document. If you chose Google Docs/Sheets/Slides , you will be greeted by a wizard that will help you configure the feel of your document.



Step 3: Name the file.

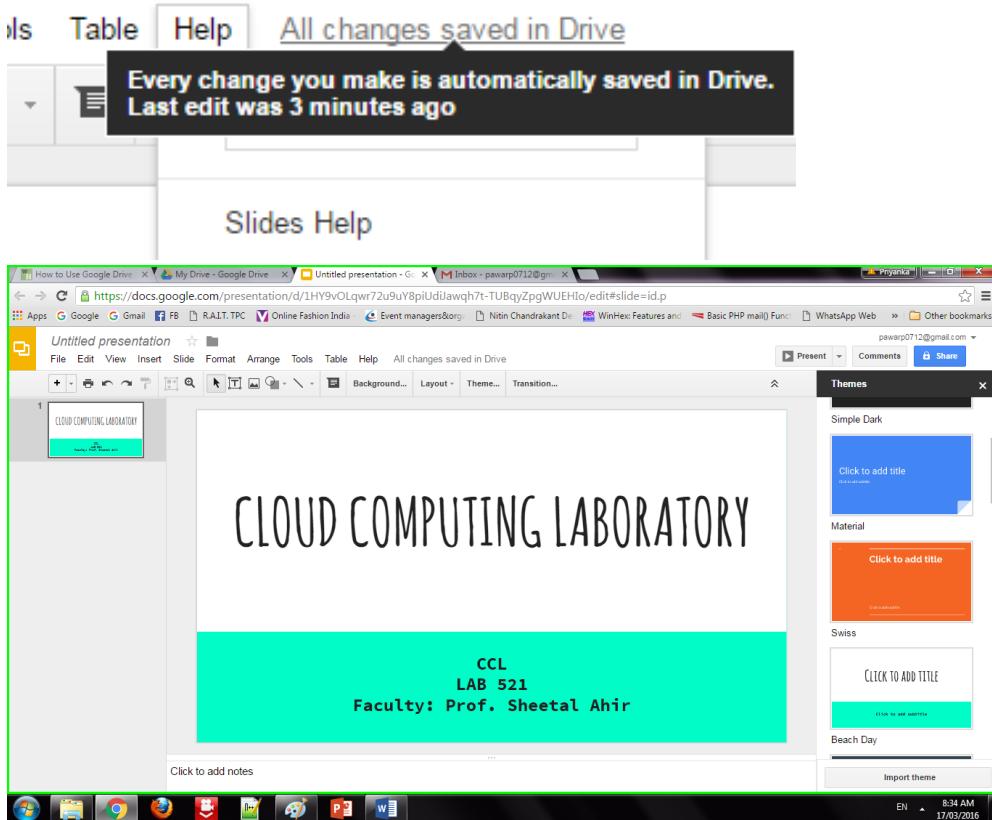
At the top of the page, click the italic gray text that says “Untitled <file type>”. When you click it, the “Rename document” window will appear, allowing you to change the name of your file.



Step 4: Edit your document.

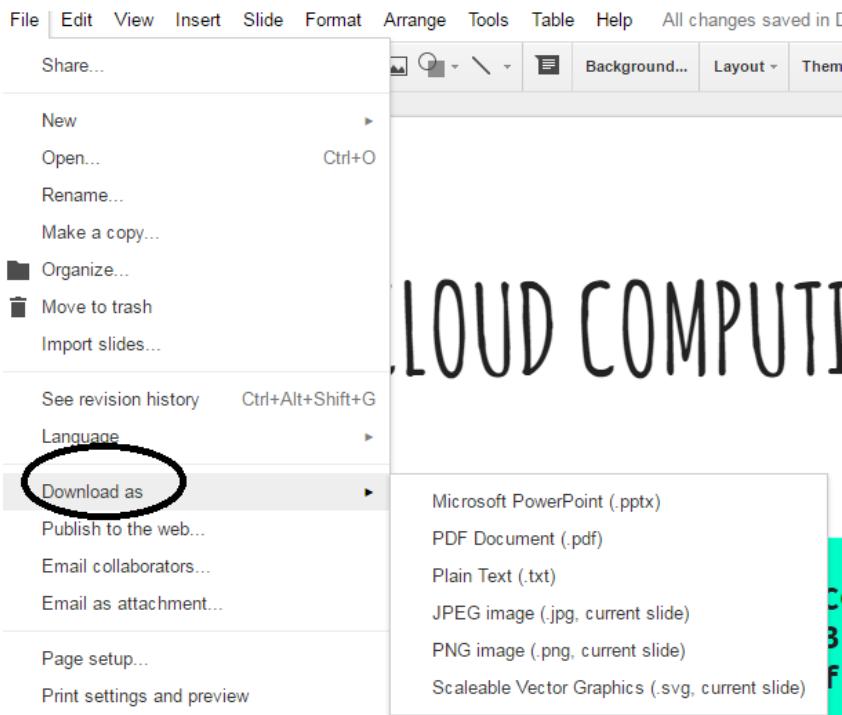
Begin writing your document as you would in its commercially-equivalent. You will most likely find that Google Drive has most of the basic features, but advanced features you may be used to are not available.

1. Your document saves automatically as you work on it.



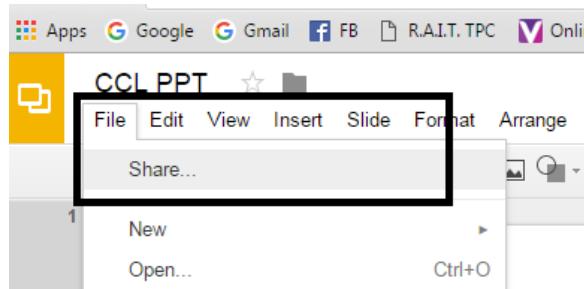
Step 5: Export and convert the file.

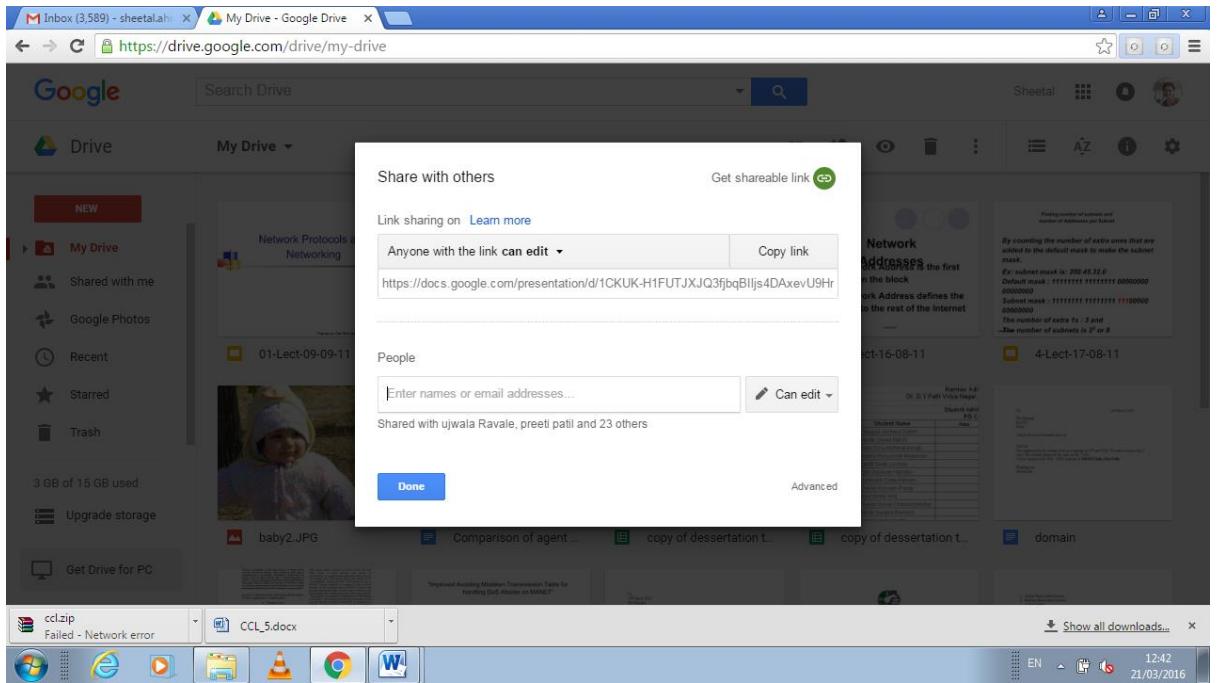
If you want to make your file compatible with similar programs, click File and place your cursor over “Download As”. A menu will appear with the available formats. Choose the format that best suits your needs. You will be asked to name the file and select a download location. When the file is downloaded, it will be in the format you chose.



Step 6: Share your document.

Click File and select Share, or click the blue Share button in the upper right corner to open the Sharing settings. You can specify who can see the file as well as who can edit it.





Other Capabilities

Connect apps to Drive

All ▾ pixlr

Pixlr Editor
from pixlr.com
Full featured in browser photo editor!

Pixlr Express
from pixlr.com
A powerful photo editor that lets you crop, resize, and enhance in a completely ad-free experience.

Picto for me AAC Communication Boards
from pictoforme.com
AAC Communication Boards for Google Drive

wikiHow to Use Google Drive

- 1. Edit photos
- 2. Listen Music
- 3. Do drawings
- 4. Merge PDFs

7. Conclusion:

Google Docs provide an efficient way for storage of data. It fits well in Storage as a service (SaaS). It has varied options to create documents, presentations and also spreadsheets. It saves documents automatically after a few seconds and can be shared anywhere on the Internet at the click of a button.

Practical 5

Aim : Study and implementation of identity management

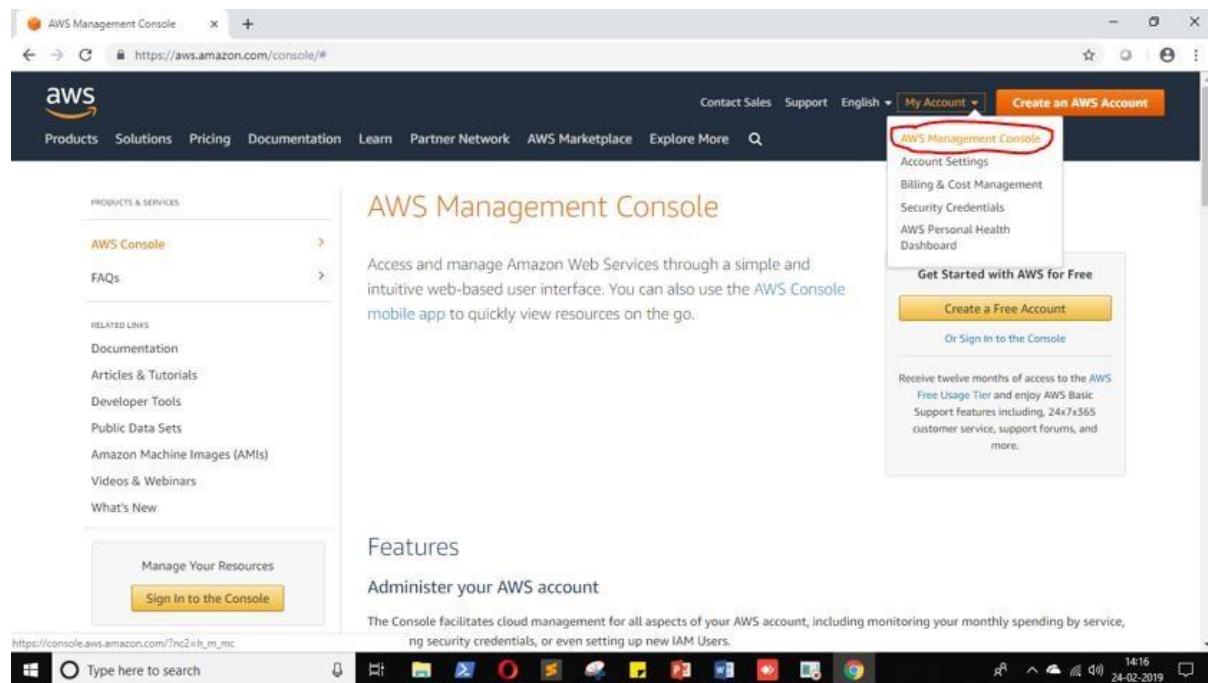
Step1 write amazon free account in google

or

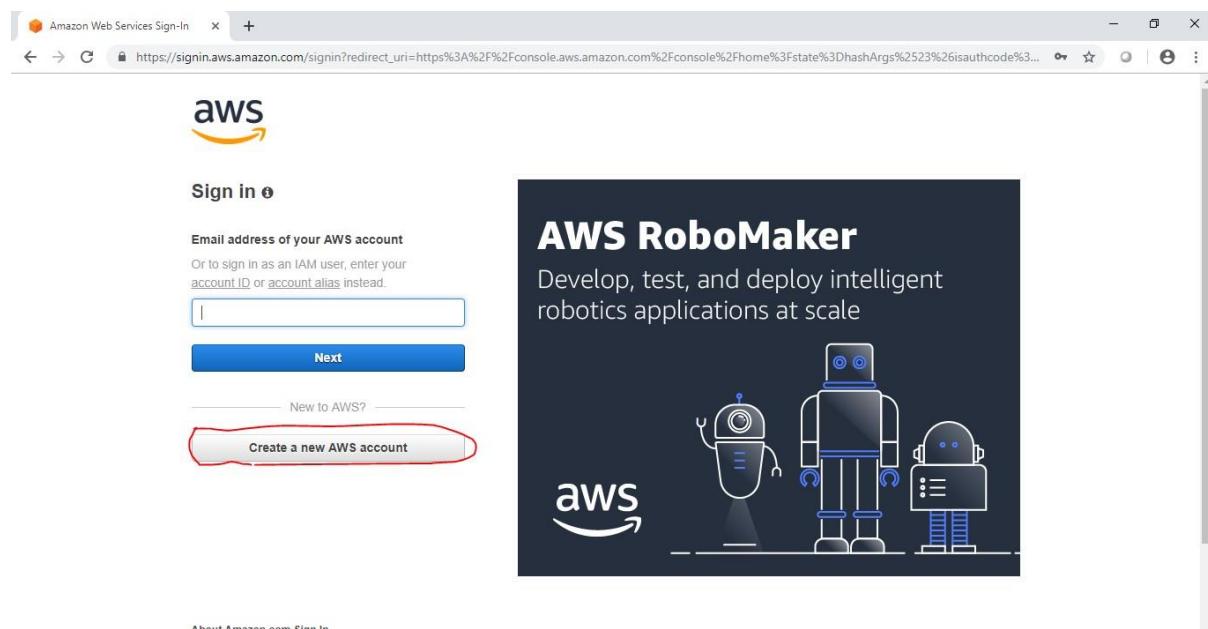
Click on link below.

<https://aws.amazon.com/console/>

Go to “My Account” > “AWS Management Console”.



Click on “Create a new AWS account”.



Fill the form and click “Continue”.

The screenshot shows the 'Create an AWS account' page. It includes a section titled 'AWS Accounts Include 12 Months of Free Tier Access' with a note about EC2, S3, and DynamoDB usage. The main form fields are: Email address (rawoolvijay30@gmail.com), Password (*****), Confirm password (*****), and AWS account name (rawoolvijay). A yellow 'Continue' button is at the bottom, and a link to 'Sign in to an existing AWS account' is also present.

Fill other details (**fake details**) and click on “Create Account and Continue”.

The screenshot shows the 'Create Account and Continue' page. It asks for account type (Professional selected), full name (rawoolvijay), company name (xyz), phone number (9856423861), country/region (India), address (latur), city (latur), state/province (maharashtra), and postal code (428602). Below these fields is a note about India contact addresses and a link to the AWS Customer Agreement. A checkbox is checked, indicating acceptance of the terms. A yellow 'Create Account and Continue' button is at the bottom.

Now most curtail step AWS will ask for credit card details and other details.

You have to close the browser.

Payment Information

Please type your payment information so we can verify your identity. We will not charge you unless your usage exceeds the AWS Free Tier Limits. Review frequently asked questions for more information.

As part of our card verification process we will charge \$0.25 to your card when you click the 'Next Step' button below. This will be refunded once your card has been validated. Your bank may take 3-5 business days to show the refund. MasterCard/Visa customers may be restricted to your bank website to authorize the charge.

Credit/Debit card number:

Expiration date: 02 2019

Cardholder's name: ravovijay

Billing address:

Use my contact address
latur
latur maharashtra 426302
IN

Use a new address

Do you have a PAN? Yes No

Secure Submit

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Now again navigate to link below. <https://aws.amazon.com/console/>

Go to “My Account” > “AWS Management Console”.

AWS Management Console

Access and manage Amazon Web Services through a simple and intuitive web-based user interface. You can also use the AWS Console mobile app to quickly view resources on the go.

Features

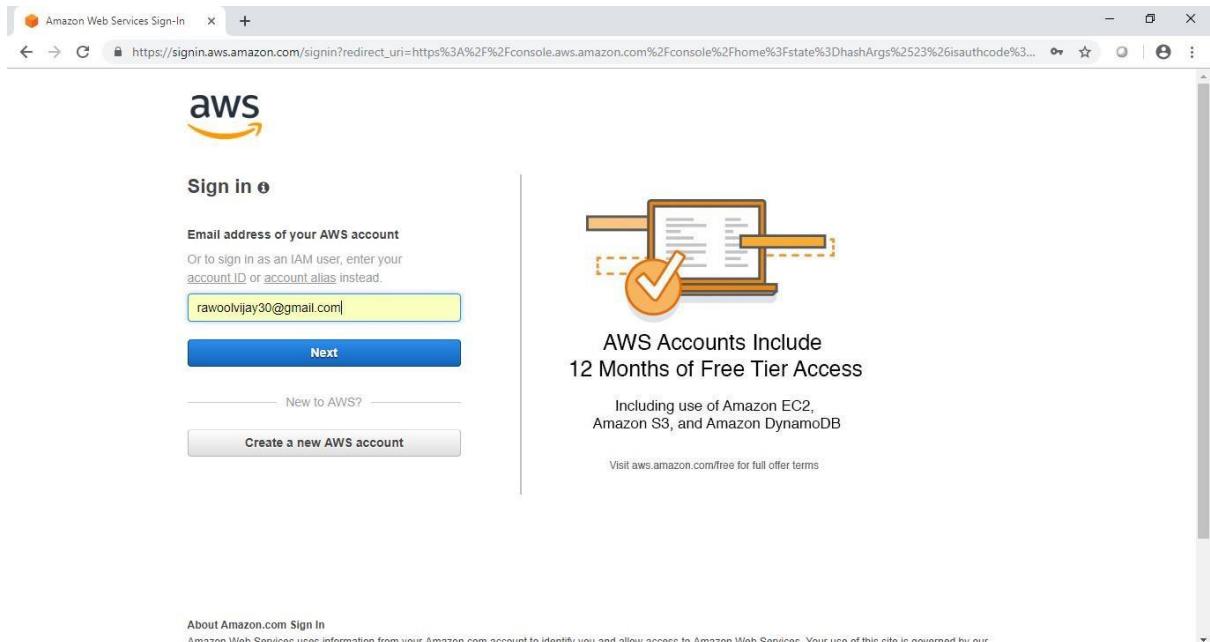
Administer your AWS account

The Console facilitates cloud management for all aspects of your AWS account, including monitoring your monthly spending by service, managing security credentials, or even setting up new IAM Users.

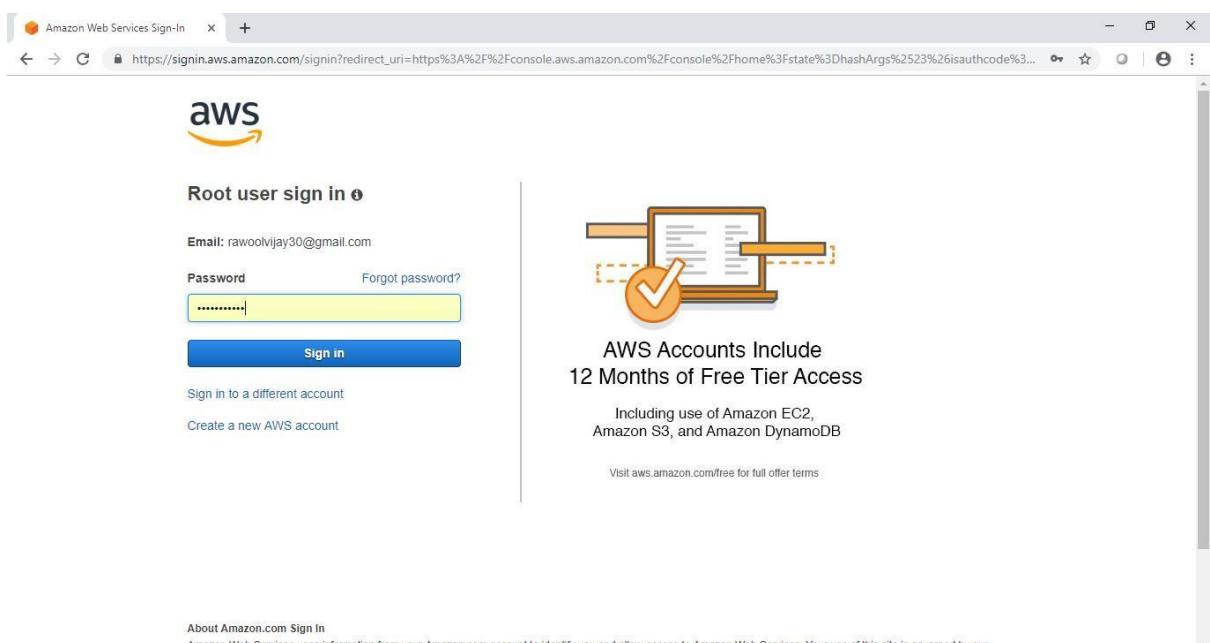
[Create a Free Account](#) [Or Sign In to the Console](#)

Receive twelve months of access to the AWS Free Usage Tier and enjoy AWS Basic Support features including, 24x7x365 customer service, support forums, and more.

Enter your ID and click on “Next”.



Enter your password and click on “Sign in”.



Now it will redirect you to home page without asking any other details. Now we have to add user and group and assign them privileges.

The screenshot shows the AWS Management Console home page. The top navigation bar includes links for Services, Resource Groups, and Support, along with account information for rawoolvijay and Ohio. The main content area features a sidebar titled "AWS services" with sections for "Find Services" (containing a search bar), "Recently visited services" (listing IAM), and "All services". Below this is a "Build a solution" section with options for "Launch a virtual machine", "Build a web app", and "Build using virtual servers". To the right, there are two panels: "Access resources on the go" (with a link to the AWS Console Mobile App) and "Explore AWS" (listing Amazon SageMaker, AWS Marketplace, and Amazon RDS). A vertical scroll bar is visible on the right side of the page.

Go to “My Security Credentials”.

This screenshot is identical to the one above, showing the AWS Management Console home page. However, the "My Security Credentials" link in the "Access resources" sidebar is circled in red, drawing attention to it.

Your Security Credentials

This page lists various security credentials for your AWS account:

- >Password
- Multi-factor authentication (MFA)
- Access keys (access key ID and secret access key)
- CloudFront key pairs
- X.509 certificate
- Account identifiers

Use this page to manage the credentials for your AWS account. To manage credentials for AWS Identity and Access Management (IAM) users, use the IAM Console.

Click on “**Users**”.

Add user Delete user

Find users by username or access key

User name	Groups	Access key age	Password age	Last activity	MFA
Showing 0 results					
There are no IAM users. Learn more					

Feedback English (US)

Click on “**Add user**”.

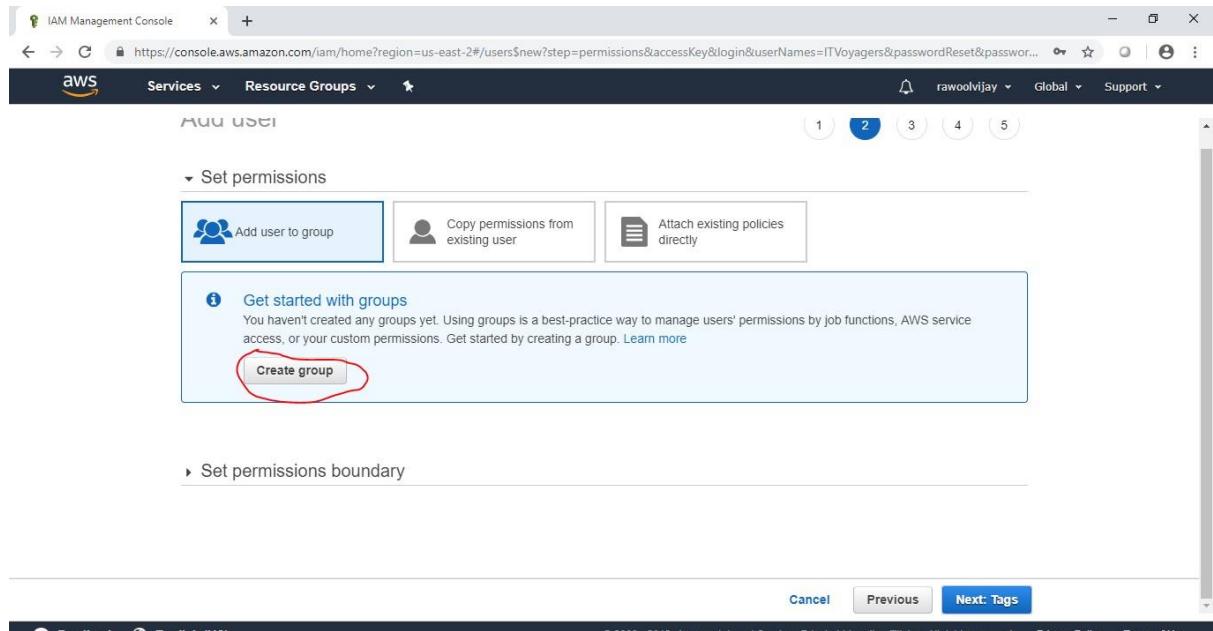
Enter the name for the user. Check the check box in front of “**Programmatic access**” and “**AWS Management Console access**”.

Screenshot of the AWS IAM Management Console showing the "Add user" step. The "User name" field contains "ITVoyagers" and is circled in red. Below it, under "Select AWS access type", two checkboxes are checked: "Programmatic access" and "AWS Management Console access". The "Console password" field is set to "Autogenerated password". At the bottom right, the "Next: Permissions" button is highlighted.

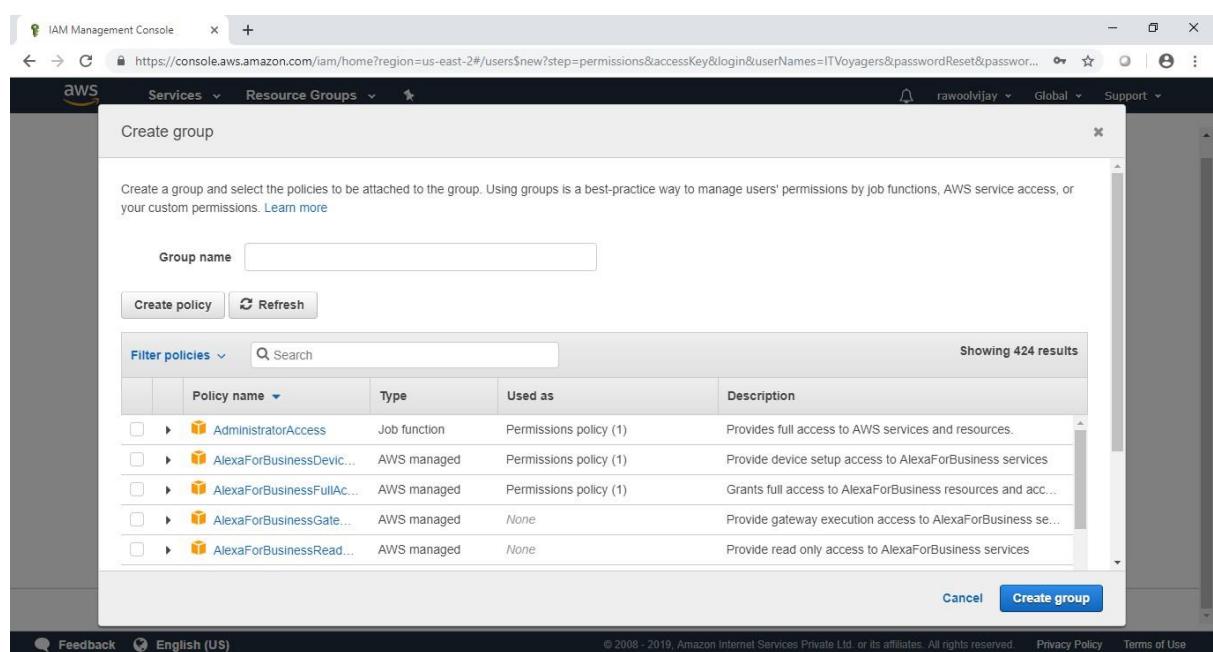
Scroll down and select “Custom password” and enter the password for the new user and click on “Next: Permissions”.

Screenshot of the AWS IAM Management Console showing the "Add user" step. The "Console password" field has "Custom password" selected and is circled in red. A password "P@ssw0rd" is entered in the input field. Below it, the "Require password reset" checkbox is checked. At the bottom right, the "Next: Permissions" button is highlighted.

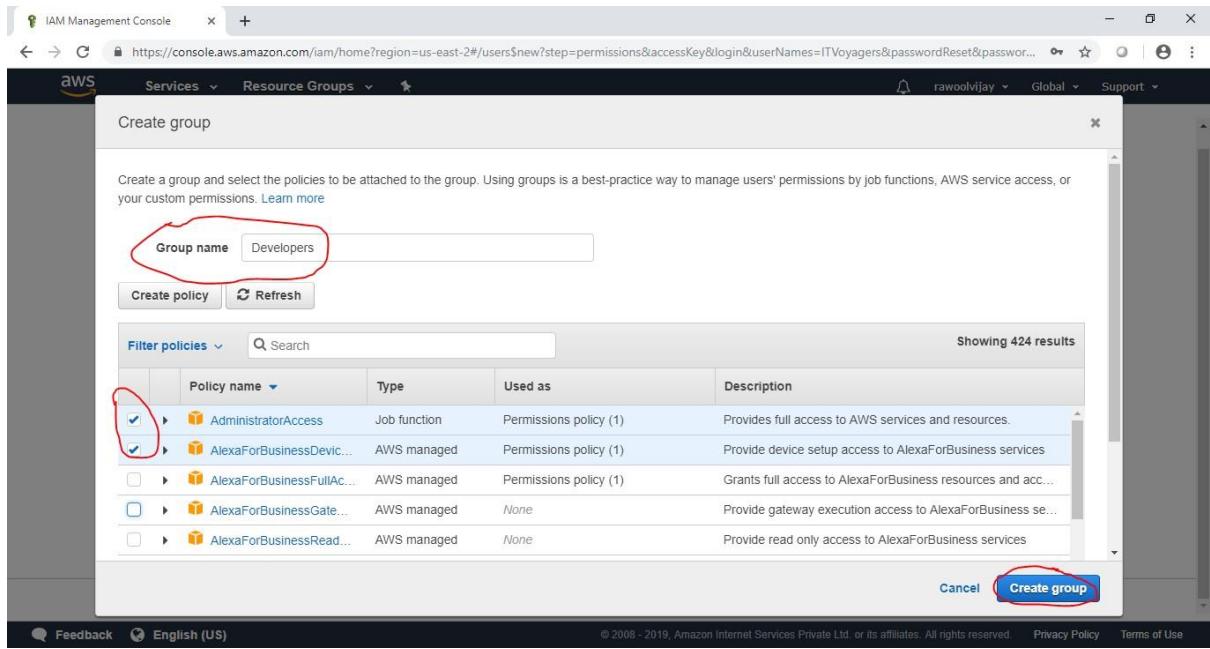
Next it allow you to create group or you can just pass it. We are going to create group click on “Create group”.



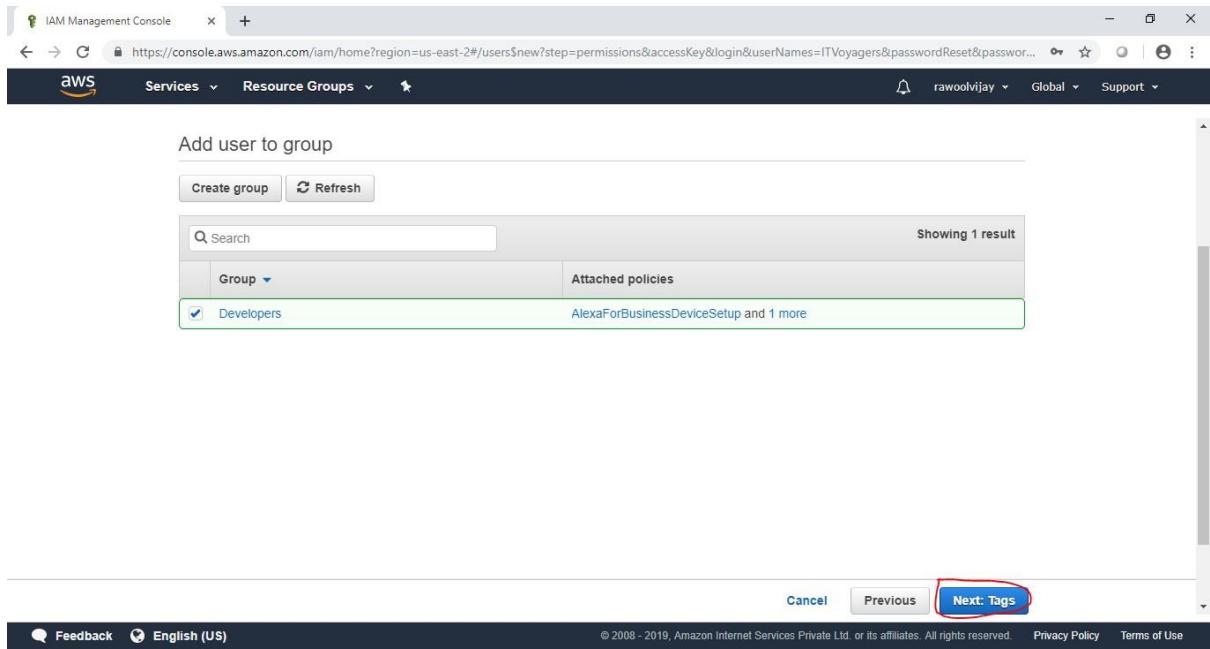
Following window will appear.



Give name to group, assign the their permissions and click on “**Create group**”.



Your group is created now click on “**Next: Tags**”.



Click on “**Next: Review**”.

IAM Management Console

Add user

Add tags (optional)

IAM tags are key-value pairs you can add to your user. Tags can include user information, such as an email address, or can be descriptive, such as a job title. You can use the tags to organize, track, or control access for this user. [Learn more](#)

Key	Value (optional)	Remove
Add new key		

You can add 50 more tags.

1 2 3 4 5

Cancel Previous **Next: Review**

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Check the Review for the user and click on “**Create user**”.

IAM Management Console

Services Resource Groups

Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

User name	ITVoyagers
AWS access type	Programmatic access and AWS Management Console access
Console password type	Custom
Require password reset	Yes
Permissions boundary	Permissions boundary is not set

Permissions summary

The user shown above will be added to the following groups.

Type	Name
Group	Developers
Managed policy	IAMUserChangePassword

Cancel Previous **Create user**

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Click on “**Close**”.

Screenshot of the AWS IAM Management Console showing the success message after creating a user.

Success
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://433943313412.signin.aws.amazon.com/console>

Download .csv

	User	Access key ID	Secret access key	Email login instructions
	ITVoyagers	AKIAILOKO4VZV3TBB4UA	***** Show	Send email

Close

Screenshot of the AWS IAM Management Console showing the user list.

Add user **Delete user**

Find users by username or access key

Showing 1 result

<input type="checkbox"/> User name	Groups	Access key age	Password age	Last activity	MFA
<input type="checkbox"/> ITVoyagers	Developers	None	Today	None	Not enabled

Feedback **English (US)**

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Click on “**Group**”. You will see the group you just created.

The screenshot shows the AWS IAM Management Console. The left sidebar has 'Groups' selected. The main area displays a table of users:

User name	Groups	Access key age	Password age	Last activity	MFA
ITVoyagers	Developers	None	Today	None	Not enabled

The screenshot shows the AWS IAM Management Console. The left sidebar has 'Groups' selected. The main area displays a table of groups:

Group Name	Users	Inline Policy	Creation Time
Developers	1		2019-02-24 15:41 UTC+0530

Now log out of admin account and try to login as user (newly created).

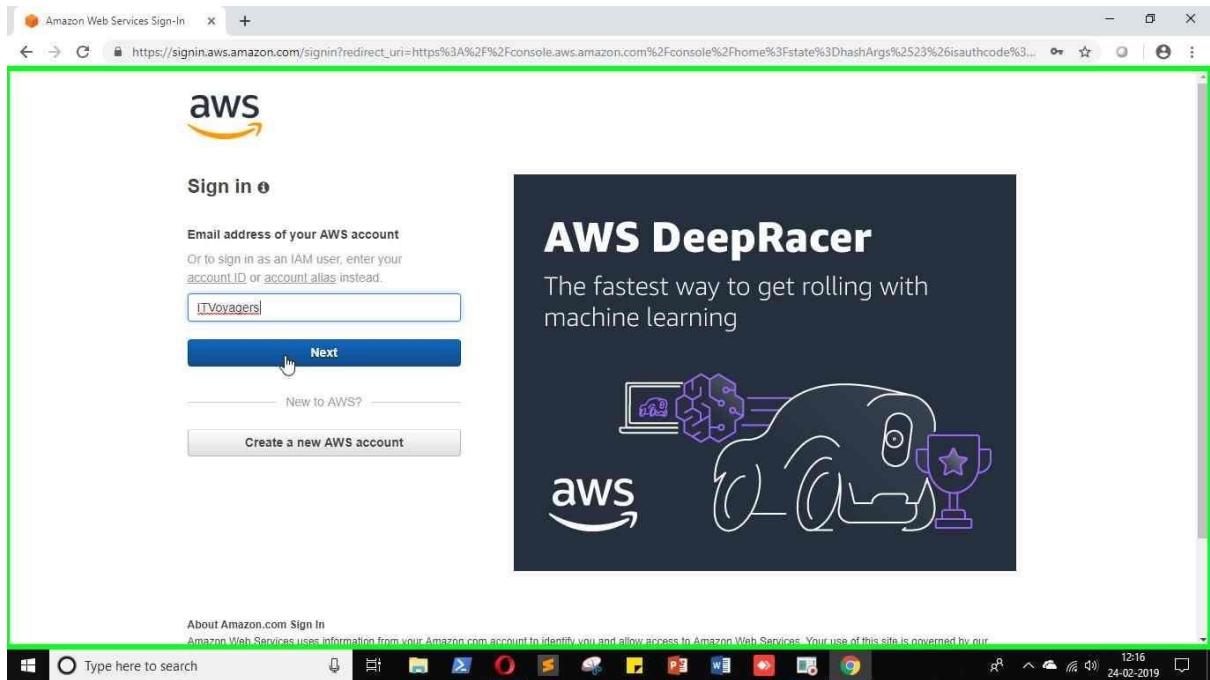
The screenshot shows the AWS IAM Management Console. On the left, there's a sidebar with options like Dashboard, Groups (which is selected), Users, Roles, Policies, Identity providers, Account settings, Credential report, and Encryption keys. The main area shows a table with a single row for a group named 'Developers'. The table has columns for Group Name, Users (showing 1), and Inline Policy. A red circle highlights the 'Sign Out' link in the top right corner of the table row. The top navigation bar includes services like Services and Resource Groups, and account information like rawoolvijay, Global, Support, and a sign-in status showing 5:41 UTC+0530.

Navigate to link below.

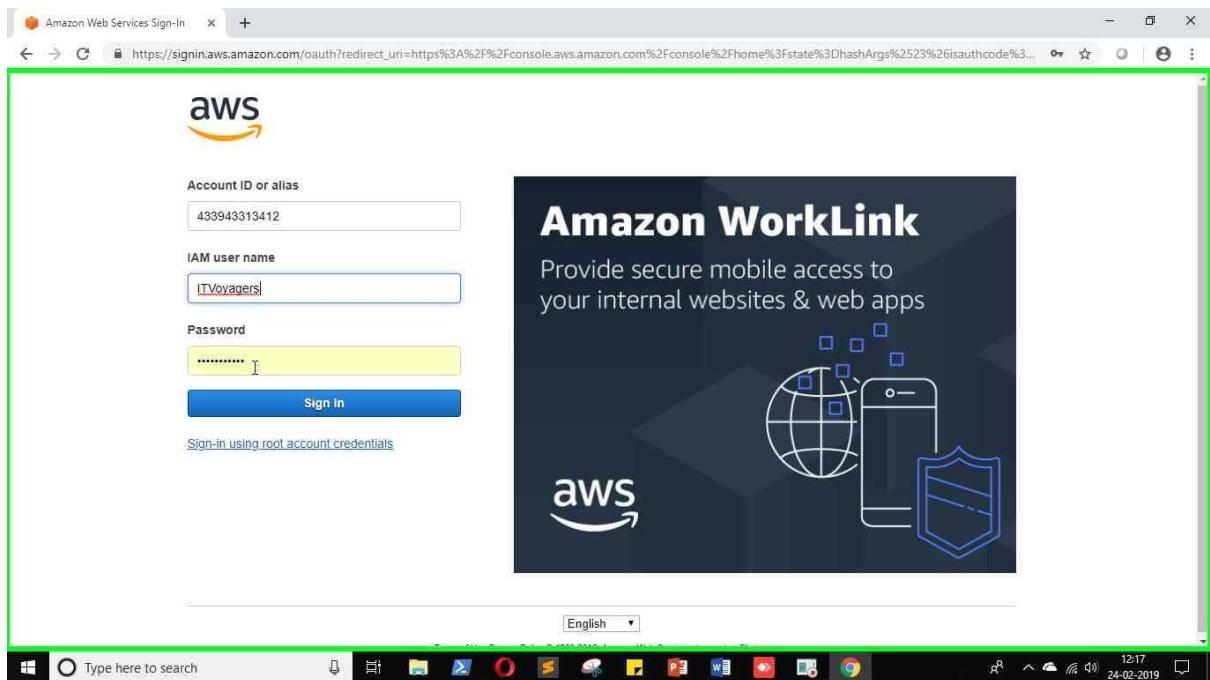
<https://aws.amazon.com/console/>

Go to “My Account” > “AWS Management Console

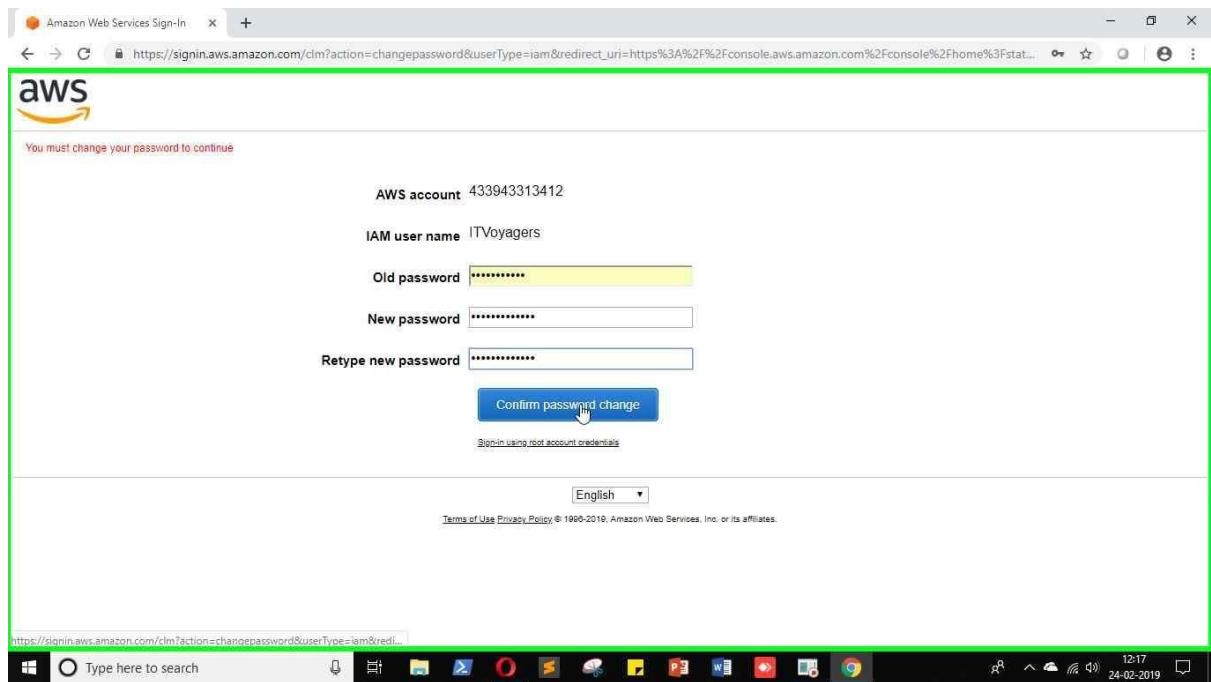
The screenshot shows the AWS Management Console homepage. The top navigation bar includes Contact Sales, Support, English, My Account (with a red circle around it), and Create an AWS Account. Below the navigation, there's a sidebar with links like Products, Solutions, Pricing, Documentation, Learn, Partner Network, AWS Marketplace, Explore More, and a search bar. The main content area features a section titled "AWS Management Console" with a sub-section about accessing and managing AWS services through the web-based interface or mobile app. A call-to-action button "Create a Free Account" is visible. The bottom of the screen shows a Windows taskbar with various pinned icons and the date/time 24-02-2019 14:16.



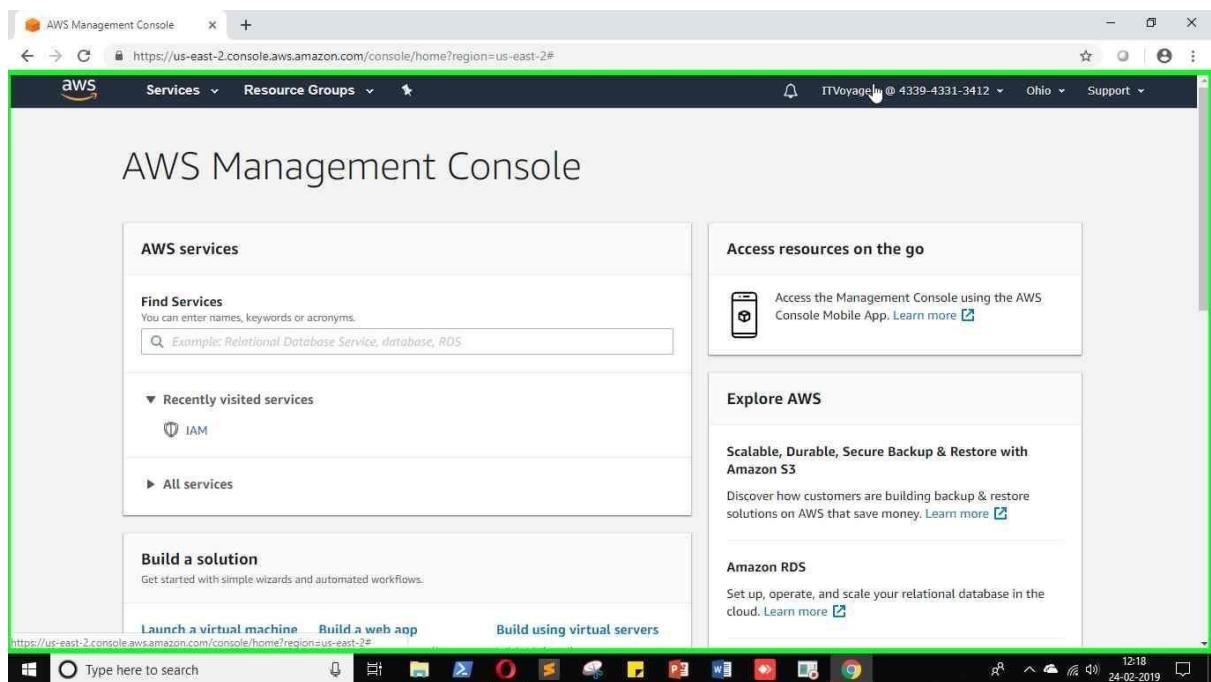
Just login to your users account.



It will ask you to change the password which is been set by administrator.



You will be redirected to home screen.



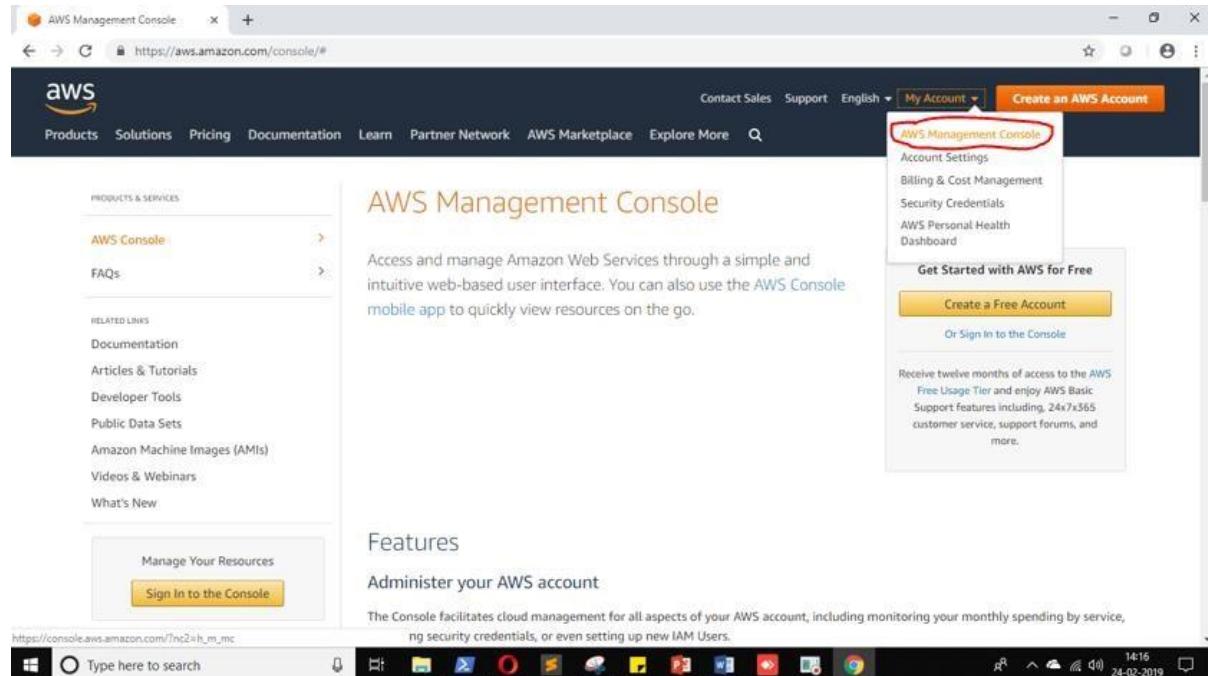
Practical 6

AIM: Study Cloud Security management.

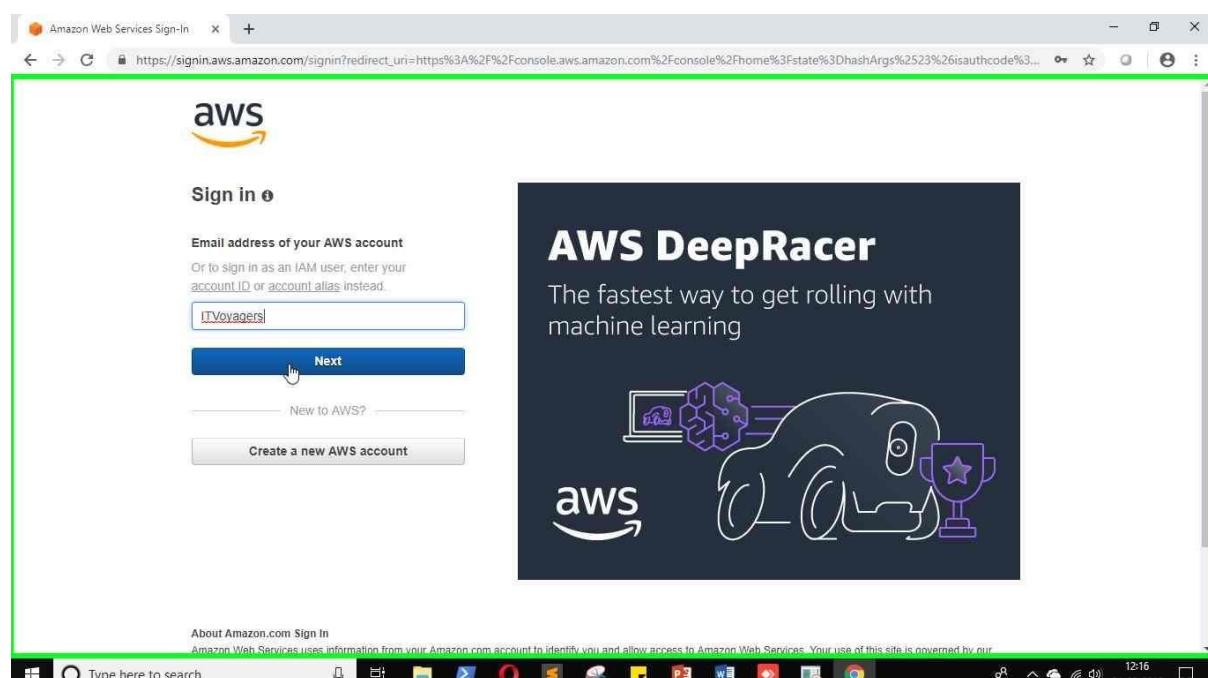
Click on link below.

<https://aws.amazon.com/console/>

Go to “My Account” > “AWS Management Console”.

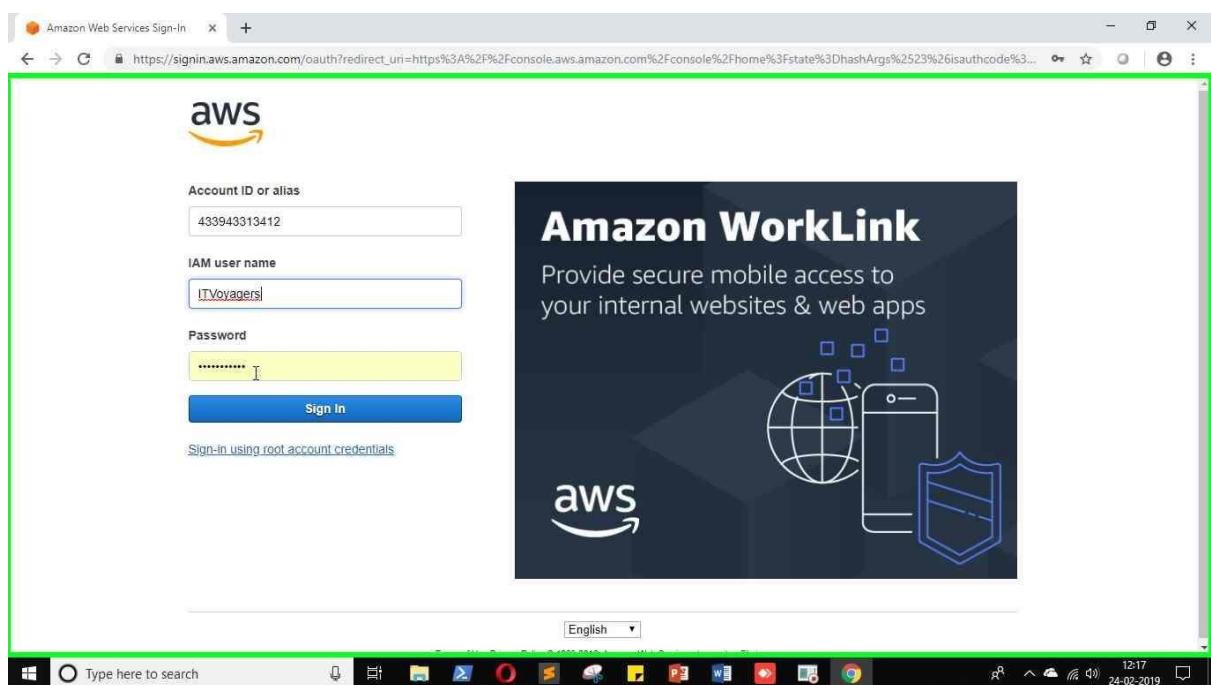
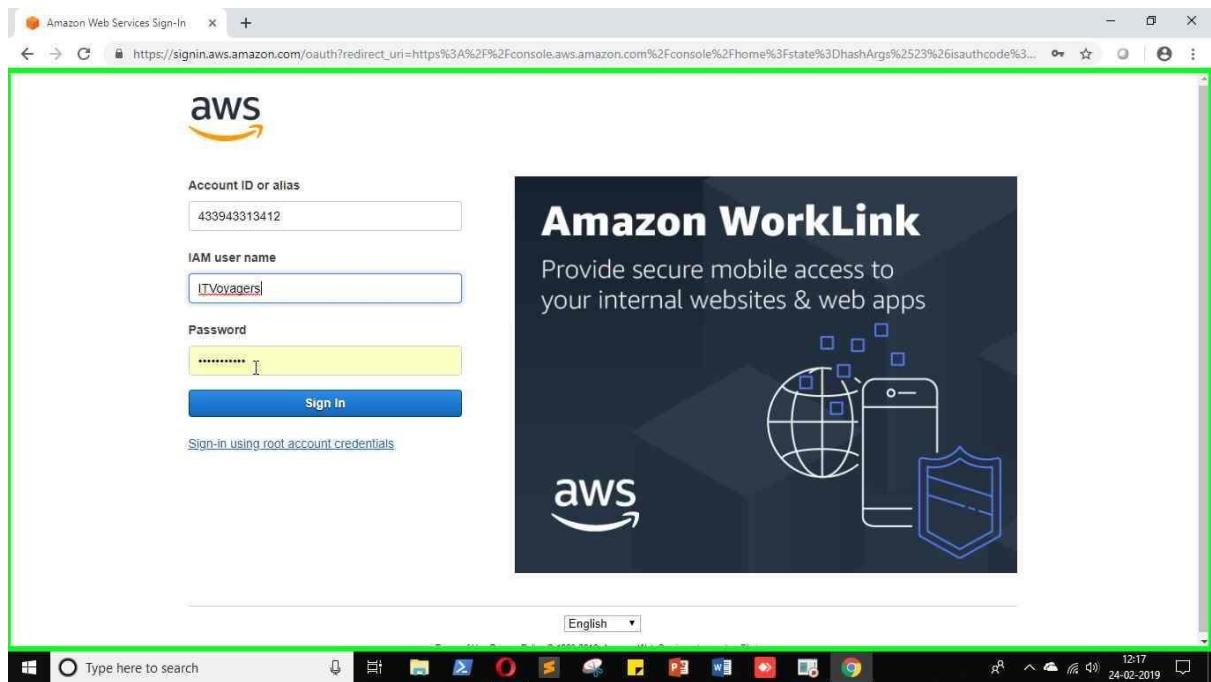


The screenshot shows the AWS Management Console homepage. The top navigation bar includes links for Contact Sales, Support, English, My Account (with a dropdown menu), and Create an AWS Account. The main content area features the AWS logo and the heading "AWS Management Console". It describes the service as a simple and intuitive web-based user interface for managing Amazon Web Services. A sidebar on the left contains links for Products & Services, AWS Console, FAQs, Documentation, Articles & Tutorials, Developer Tools, Public Data Sets, Amazon Machine Images (AMIs), Videos & Webinars, and What's New. A central section titled "Features" includes a "Manage Your Resources" button and a "Sign In to the Console" button. The bottom of the page shows a Windows taskbar with various pinned icons and the date/time as 14:16 24-02-2019.



The screenshot shows the AWS Sign-in page for AWS DeepRacer. The page has a dark background with the AWS logo at the top. It features a large "AWS DeepRacer" logo and the text "The fastest way to get rolling with machine learning". On the left, there's a form with an input field containing "ITVoyagers" and a "Next" button. Below the input field are links for "New to AWS?" and "Create a new AWS account". To the right, there's a graphic of a brain connected to a racing car cockpit, with a star-shaped trophy nearby. At the bottom, there's a link for "About Amazon.com Sign In" and a note about using Amazon Web Services. The bottom of the page shows a Windows taskbar with the date/time as 12:16 24-02-2019.

Just login to your users account.



Once you logged in go to "**My Security Credentials**".

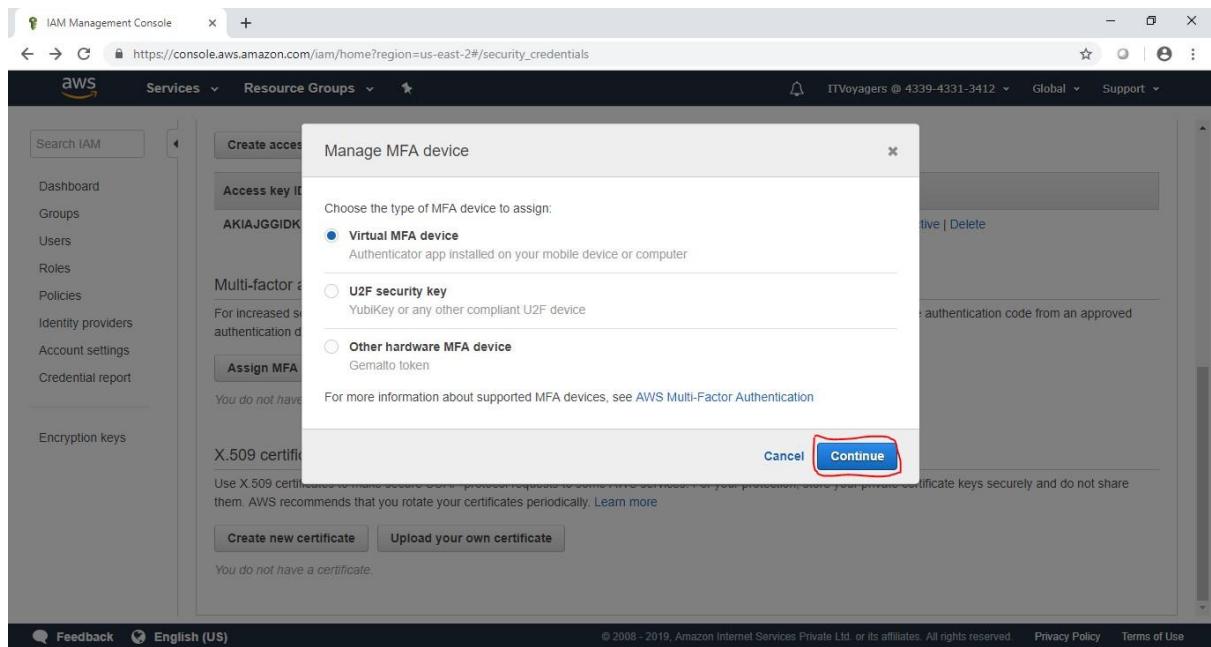
The screenshot shows the AWS Management Console with the URL <https://us-east-2.console.aws.amazon.com/console/home?region=us-east-2>. The top navigation bar includes 'Services', 'Resource Groups', and 'Support'. On the right, it shows 'ITVoyagers @ 4339-4331-3412' and 'Ohio'. A dropdown menu for the IAM user 'ITVoyagers' is open, showing options like 'My Account', 'My Organization', 'My Billing Dashboard', 'My Security Credentials' (which is circled in red), 'Switch Role', and 'Sign Out'. The main content area displays sections for 'AWS services', 'Find Services', 'Recently visited services' (with 'IAM' listed), and 'All services'. Below this are sections for 'Build a solution', 'Launch a virtual machine', 'Build a web app', and 'Build using virtual servers'.

Scroll down you will find “Multi-factor authentication (MFA)”

Click on “Assign MFA device”

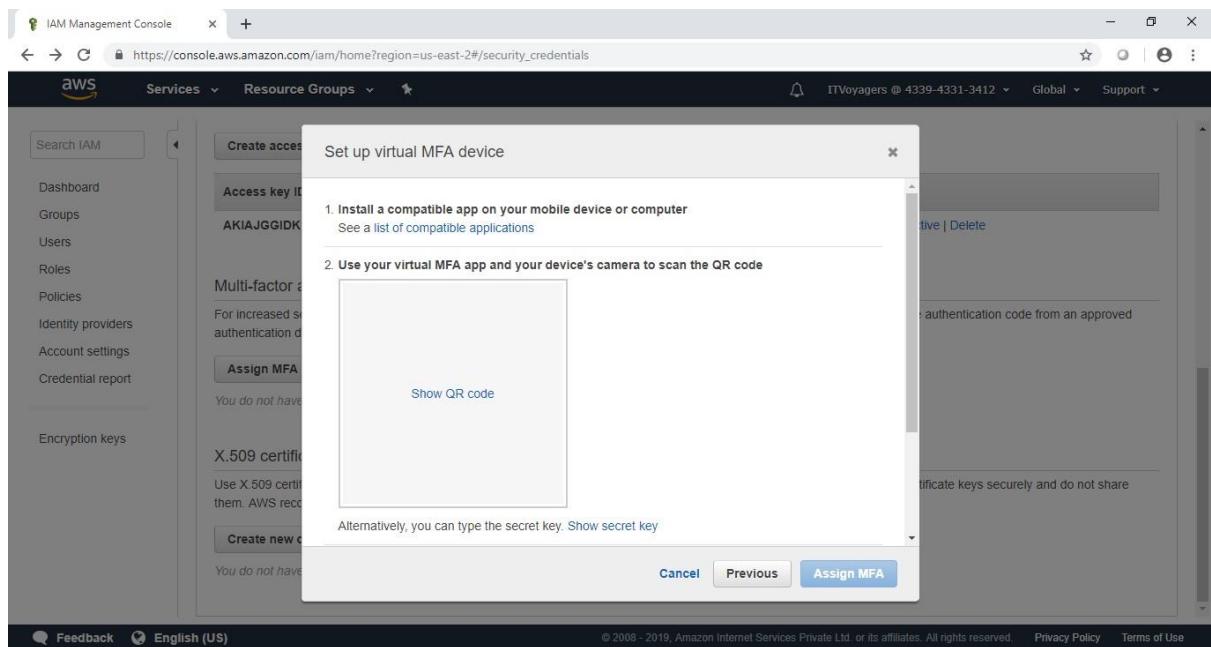
The screenshot shows the IAM Management Console with the URL https://console.aws.amazon.com/iam/home?region=us-east-2#/security_credentials. The top navigation bar includes 'Services', 'Resource Groups', and 'Support'. On the right, it shows 'ITVoyagers @ 4339-4331-3412' and 'Global'. A sidebar on the left lists 'Dashboard', 'Groups', 'Users', 'Roles', 'Policies', 'Identity providers', 'Account settings', 'Credential report', and 'Encryption keys'. The main content area shows a table for 'Create access key' with one entry: 'AKIAJGGIDKFAWYELOCOTQ' (Status: Active, Created: 2019-02-24 12:15 UTC+0530, Last used: N/A). Below this is a section for 'Multi-factor authentication (MFA)'. It includes a note about increased security and a link to learn more. A button labeled 'Assign MFA device' is circled in red. Below this, there is a note: 'You do not have an assigned MFA device.' At the bottom, there is a section for 'X.509 certificate' with buttons for 'Create new certificate' and 'Upload your own certificate', and a note: 'You do not have a certificate.' The footer includes links for 'Feedback', 'English (US)', 'Privacy Policy', and 'Terms of Use'.

We will select first option “Virtual MFA device” and click on “Continue”

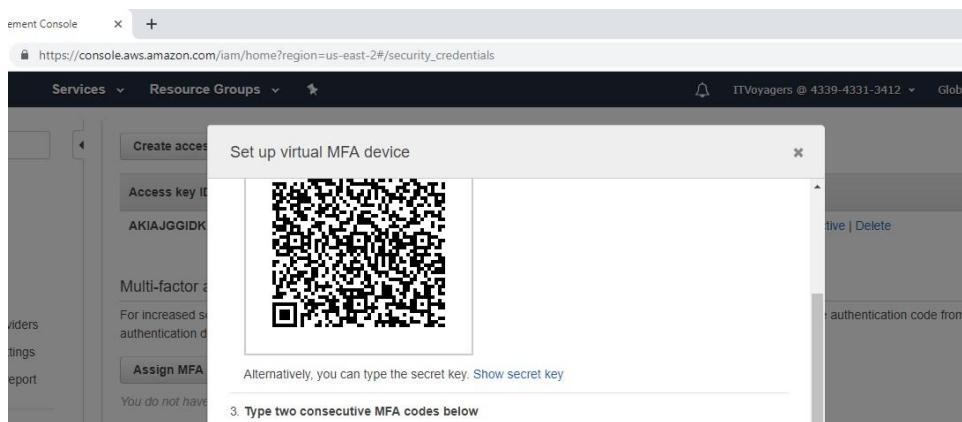
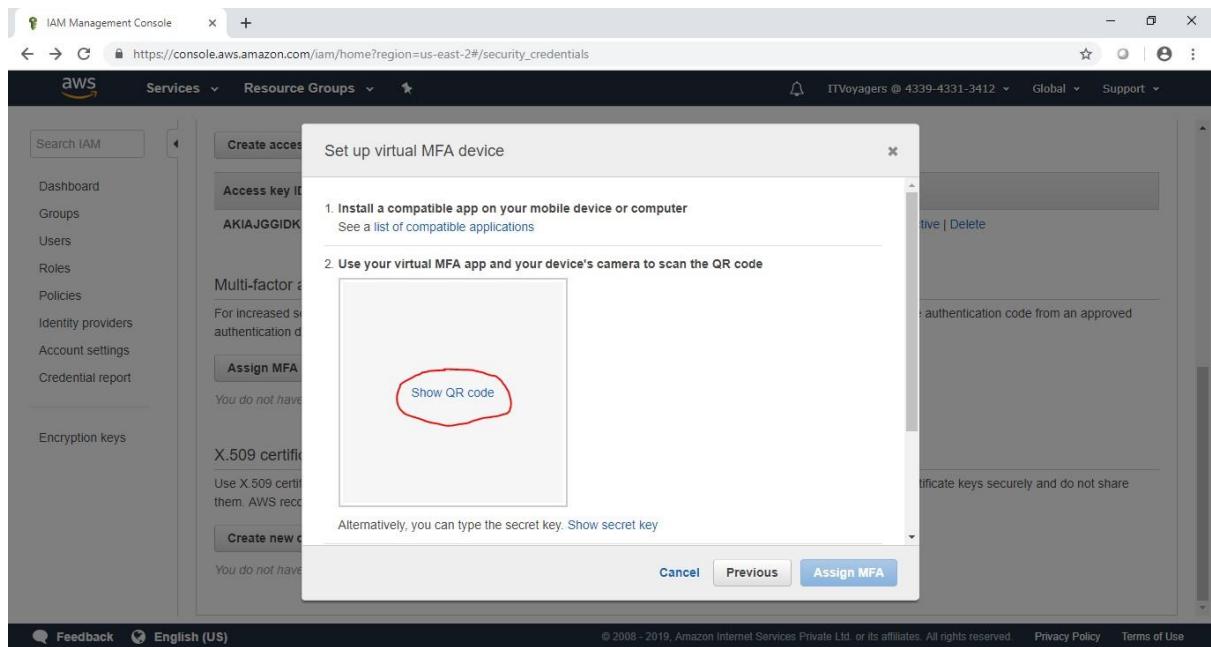


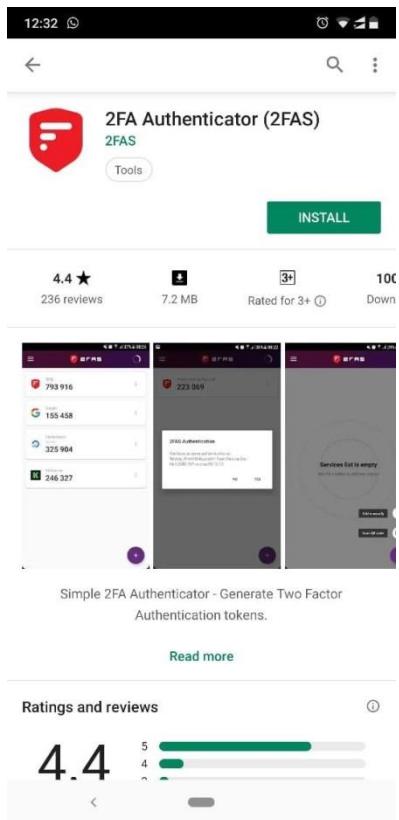
So concept is we will use third party app to generate OTP which will help us to authenticate ourselves during logging in. It will add a security layer to our account.

Now we have to download “**2FA Authenticator (2FAS)**” app on our mobile.

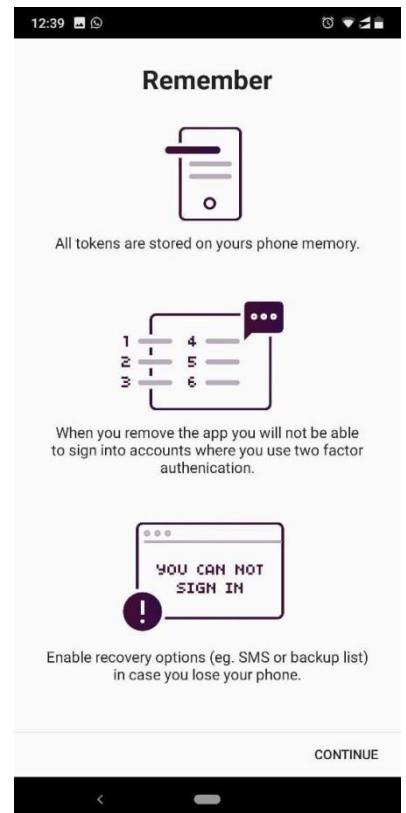


Click on “**Show QR code**” to display QR code.

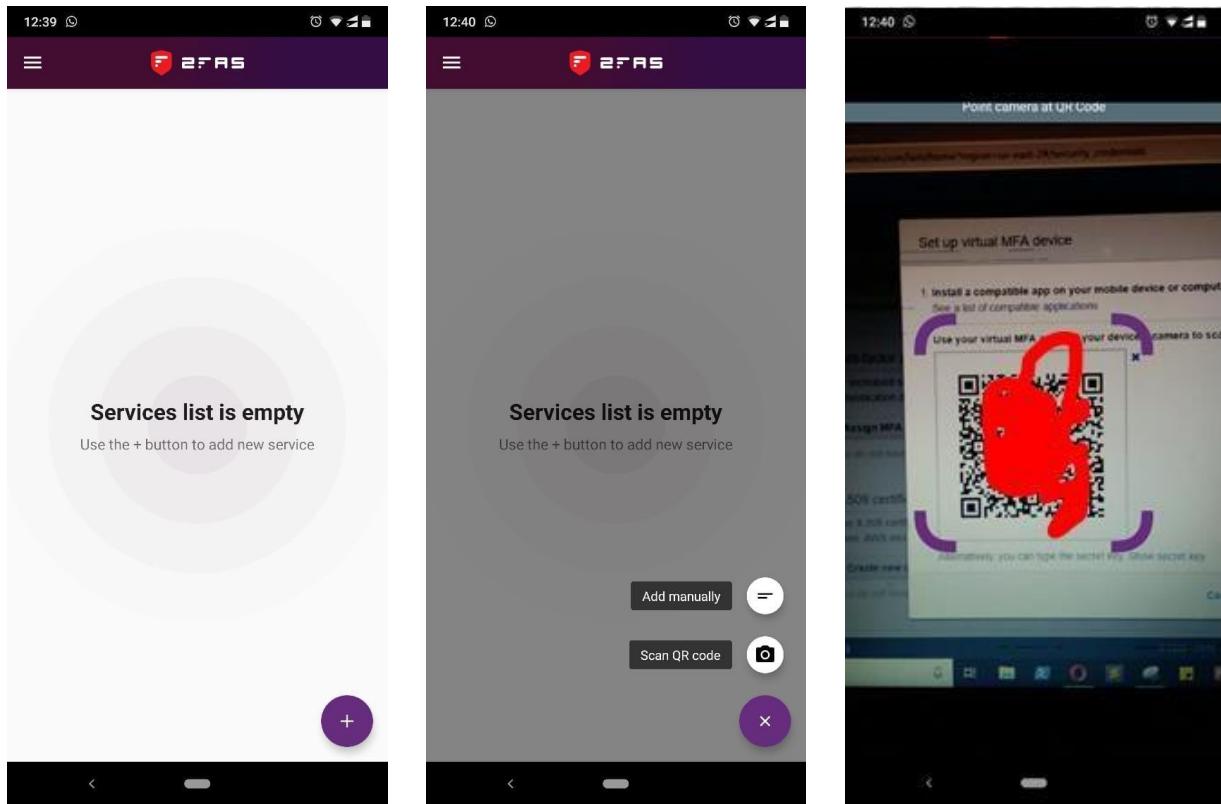




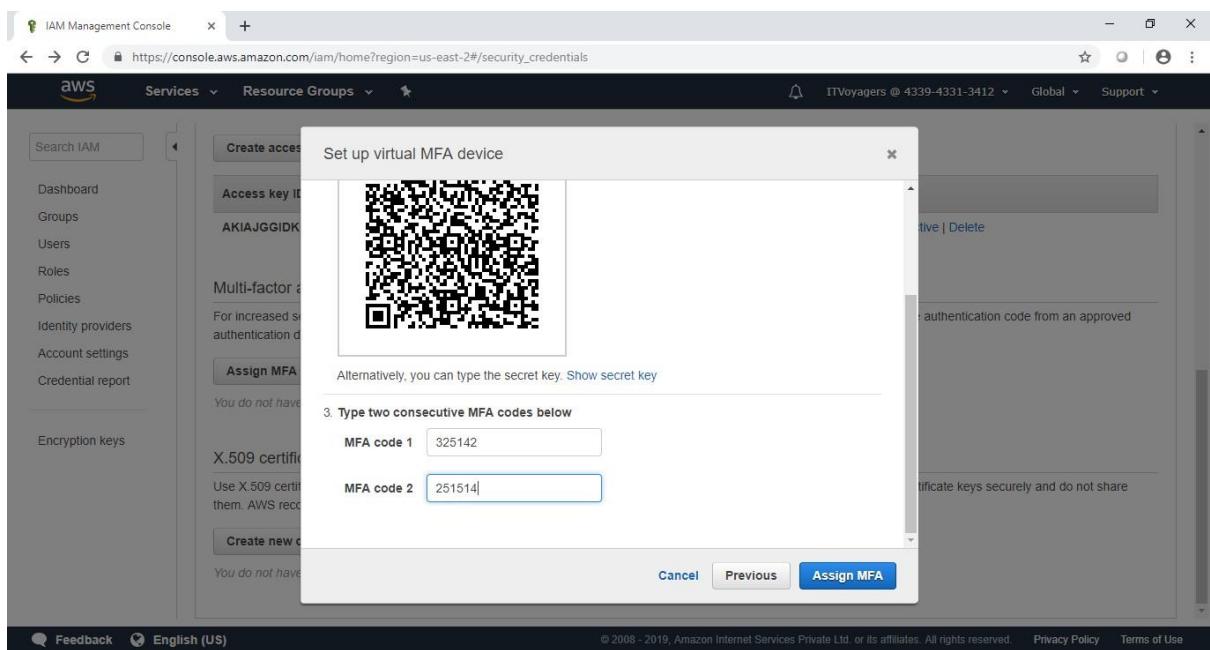
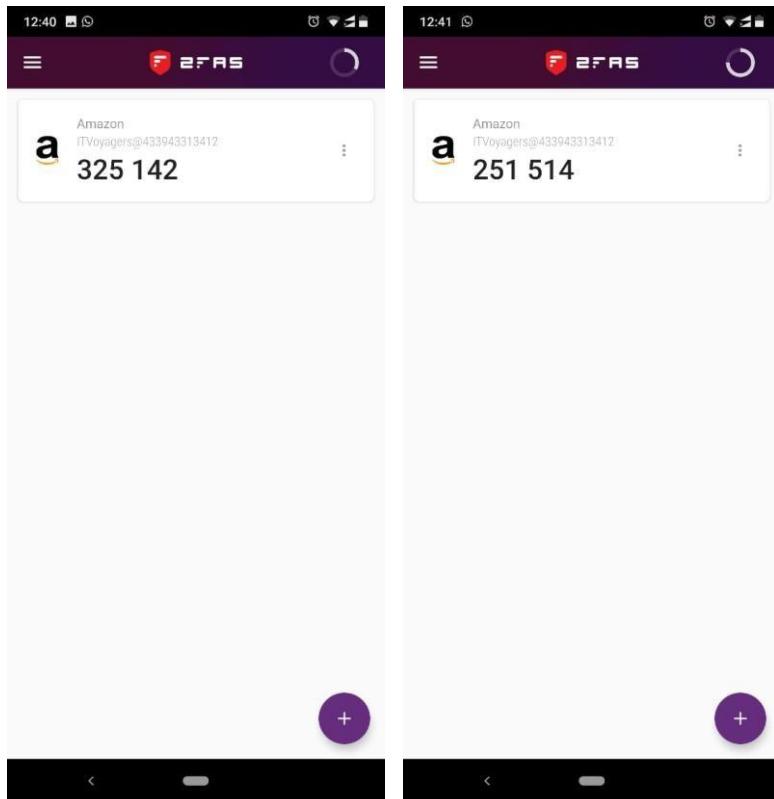
Open the app click on
“Continue”



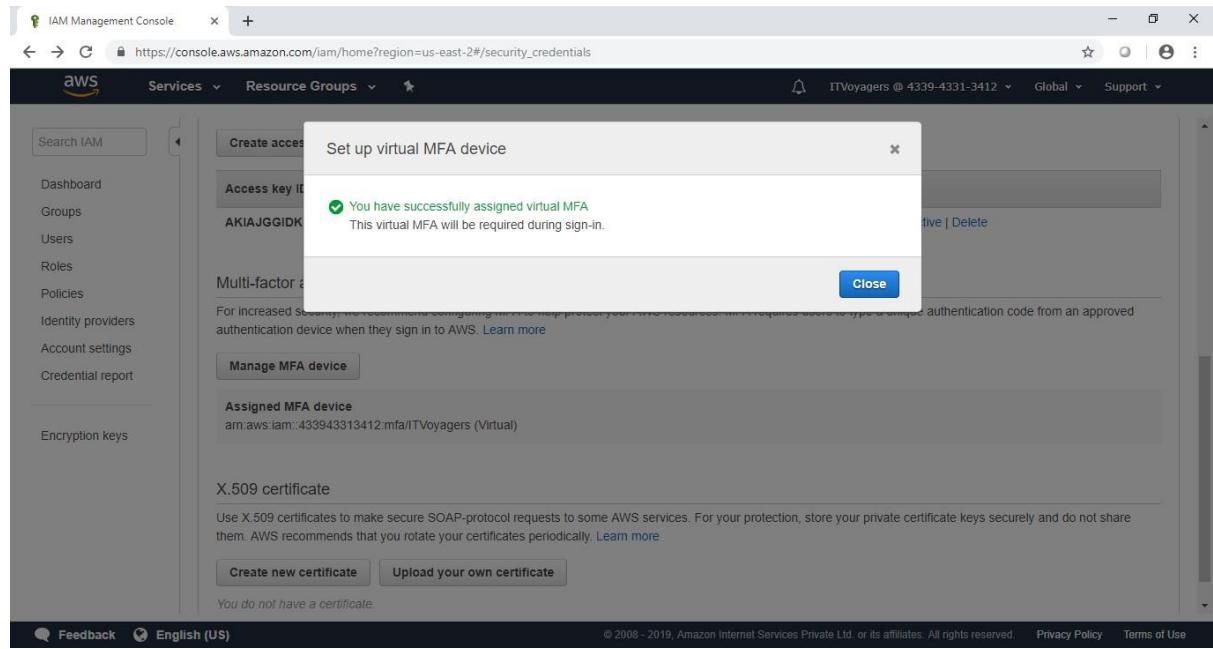
Now click on and click on “Scan QR code”.



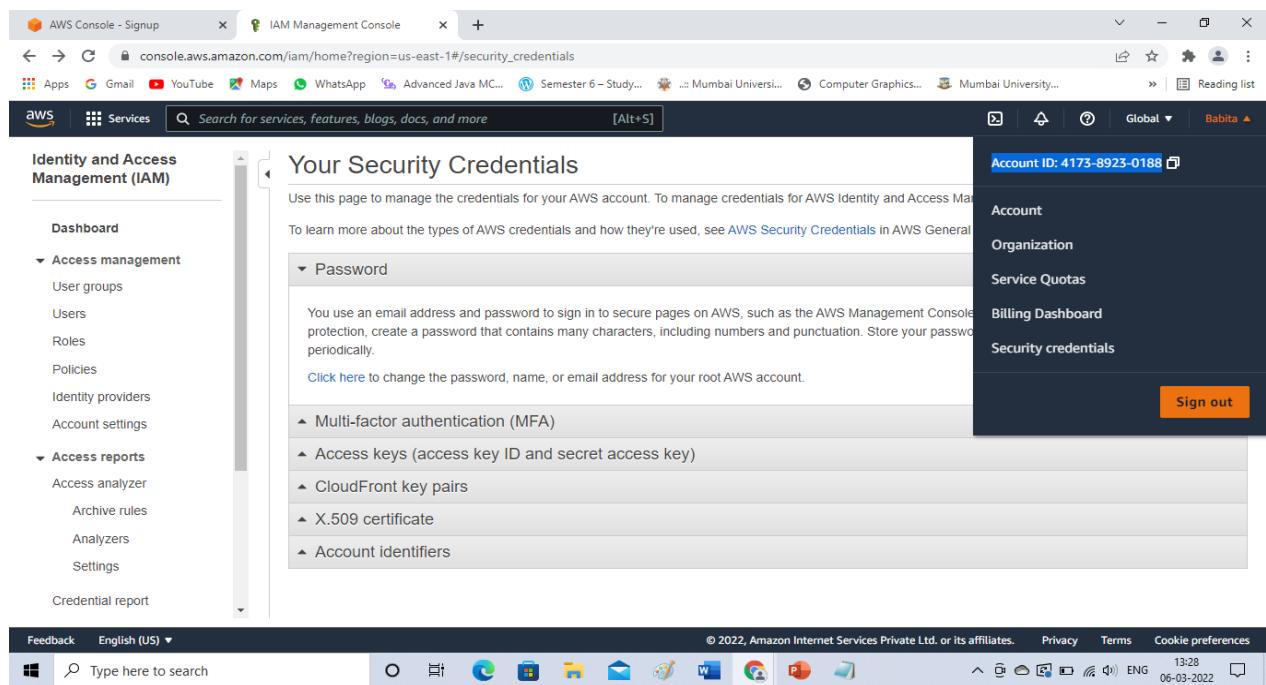
First we have to enter 2 OTP which we will receive on app and click “[Assign MFA](#)”.



Click on “Close”



Copy your Account ID Account ID: 4173-8923-0188



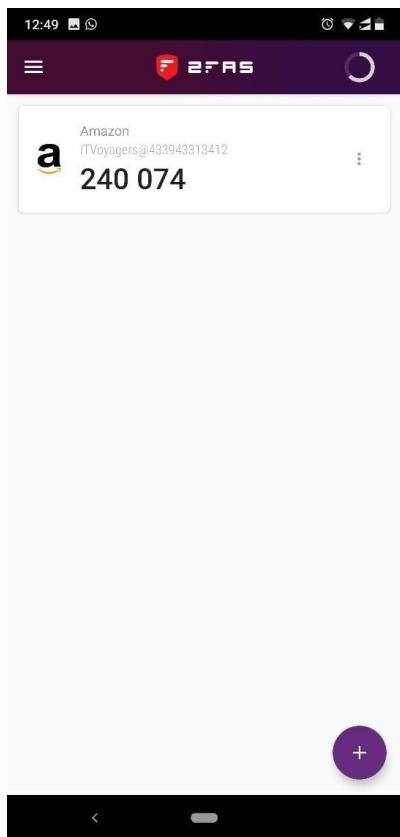
[Log out from the account.](#)

Screenshot of the AWS IAM Management Console showing the Security Credentials page. The left sidebar includes options like Dashboard, Groups, Users, Roles, Policies, Identity providers, Account settings, Credential report, and Encryption keys. The main content area shows a table of access keys, with one entry for 'AKIAJGGIDKFAWYEOCOTQ' marked as Active. It also includes sections for Multi-factor authentication (MFA) and X.509 certificates. A red circle highlights the 'Sign Out' button in the top right corner of the main content area.

Now again try to log in to your account.

Screenshot of the AWS Sign-In page. The left side shows fields for 'Account ID or alias' (433943313412), 'IAM user name' (ITVoyagers), and 'Password'. The 'Sign In' button is blue. To the right, there is a promotional banner for 'AWS Transfer for SFTP' with the text 'Fully managed, secure file transfer with storage in Amazon S3' and an illustration of a cloud, a bucket, and a folder. At the bottom, there is a language selection dropdown set to 'English'.

It will ask for MFA code. You get new code after every 30 seconds, just enter the valid MFA code and click on “Submit” to login.



English ▾
[Terms of Use](#) [Privacy Policy](#) © 1996-2019, Amazon Web Services, Inc. or its affiliates.

AWS Management Console

https://us-east-2.console.aws.amazon.com/console/home?region=us-east-2#

Services Resource Groups

ITVoyagers @ 4339-4331-3412 Ohio Support

AWS Management Console

AWS services

Find Services
You can enter names, keywords or acronyms.
Example: Relational Database Service, database, RDS

Recently visited services: IAM

All services

Build a solution
Get started with simple wizards and automated workflows.

Launch a virtual machine Build a web app Build using virtual servers

Access resources on the go

Access the Management Console using the AWS Console Mobile App. Learn more

Explore AWS

AWS Marketplace
Find, buy, and deploy popular software products that run on AWS. Learn more

Amazon Redshift
Fast, simple, cost-effective data warehouse that can extend queries to your data lake. Learn more

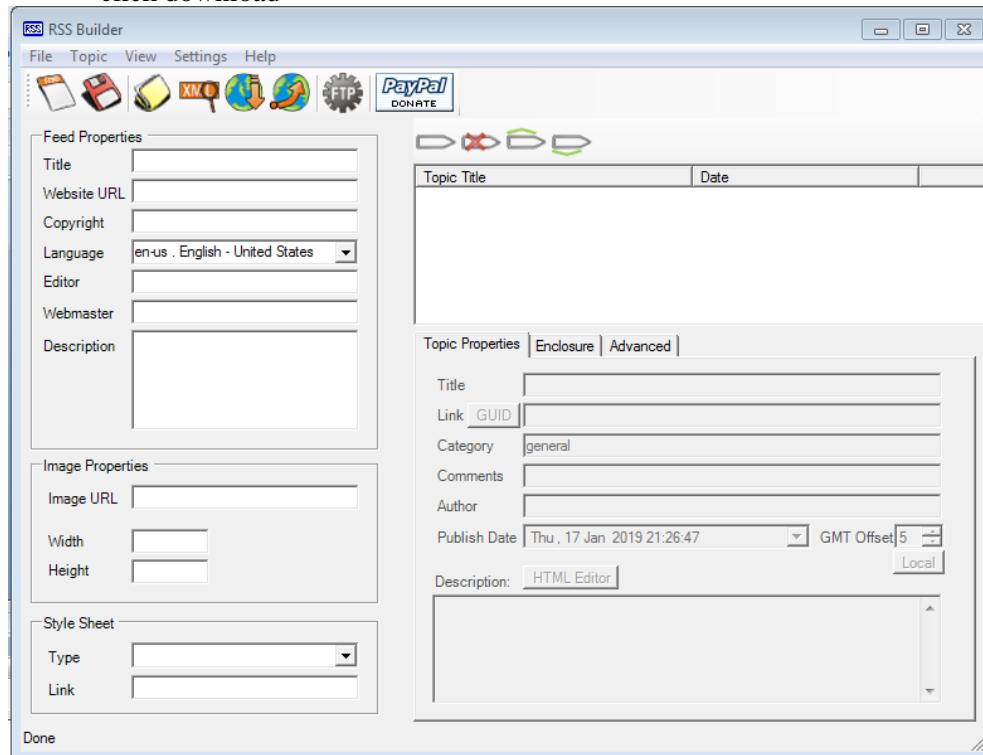
Run Serverless Containers with AWS Fargate

Practical 7

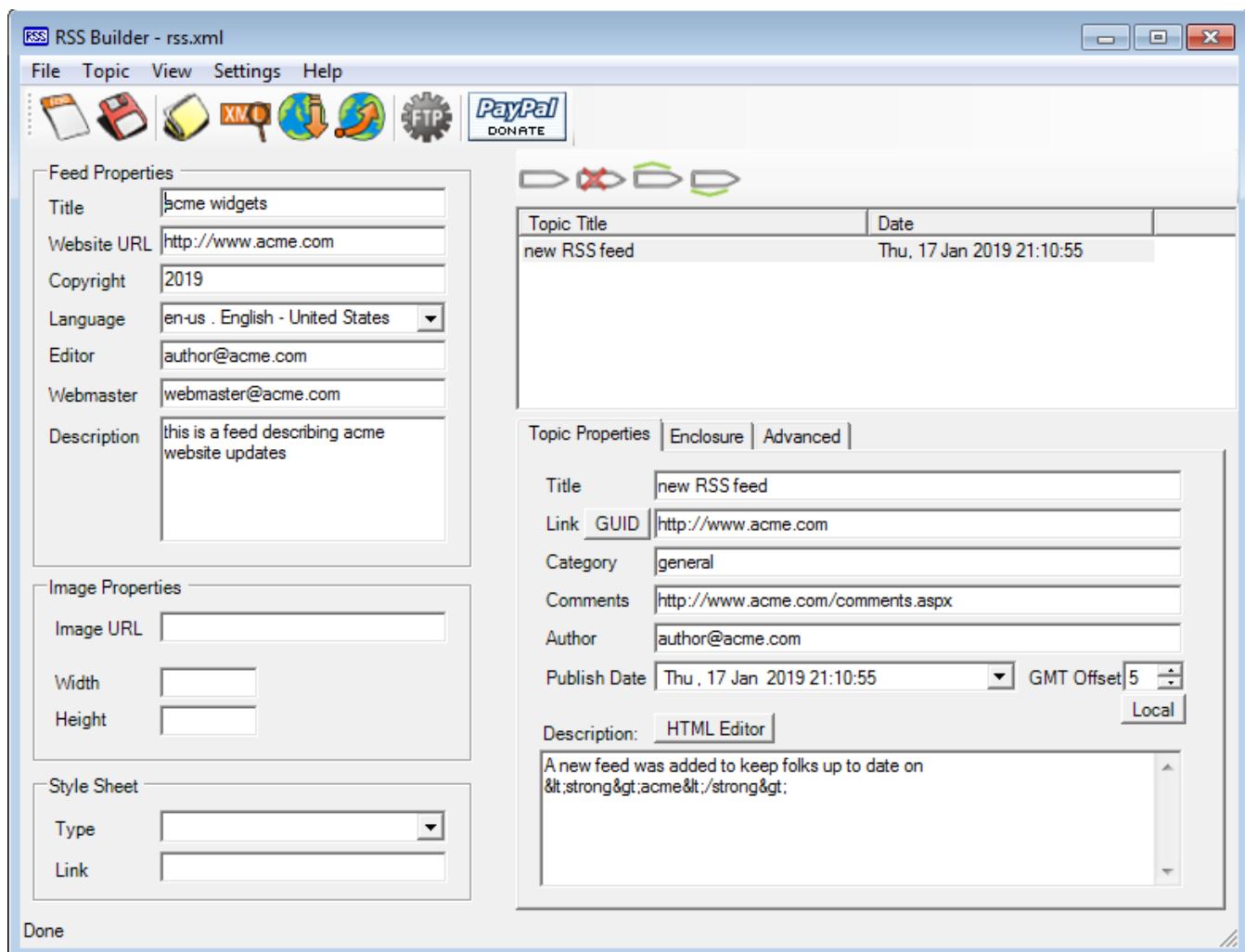
Aim : Write a program for web feed.

STEP 1: Install the software “RSSBuilder”

- open google write rss builder
- open <https://sourceforge.net/projects/rss-builder/>
- click download



STEP 2: Fill it

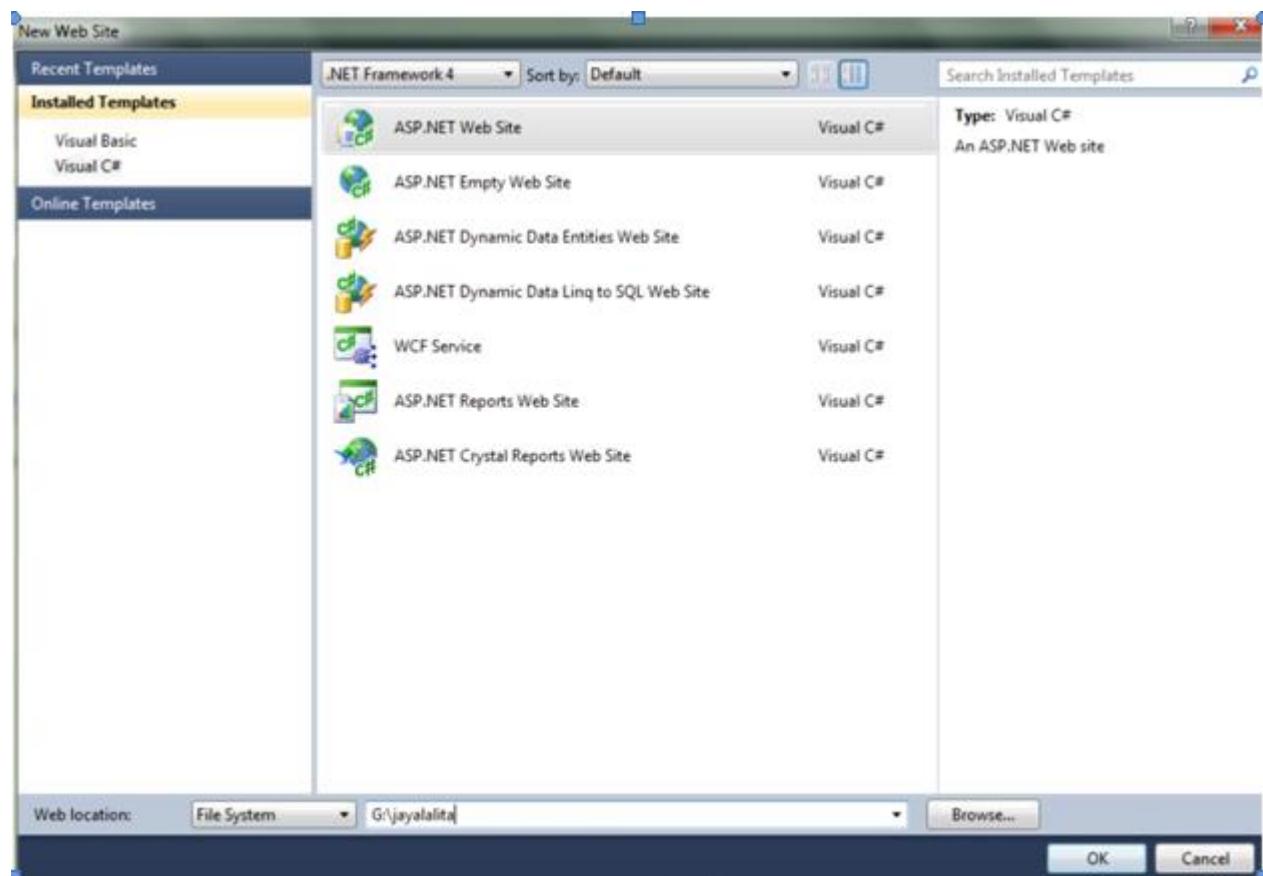


Save With Extension Rss.Xml

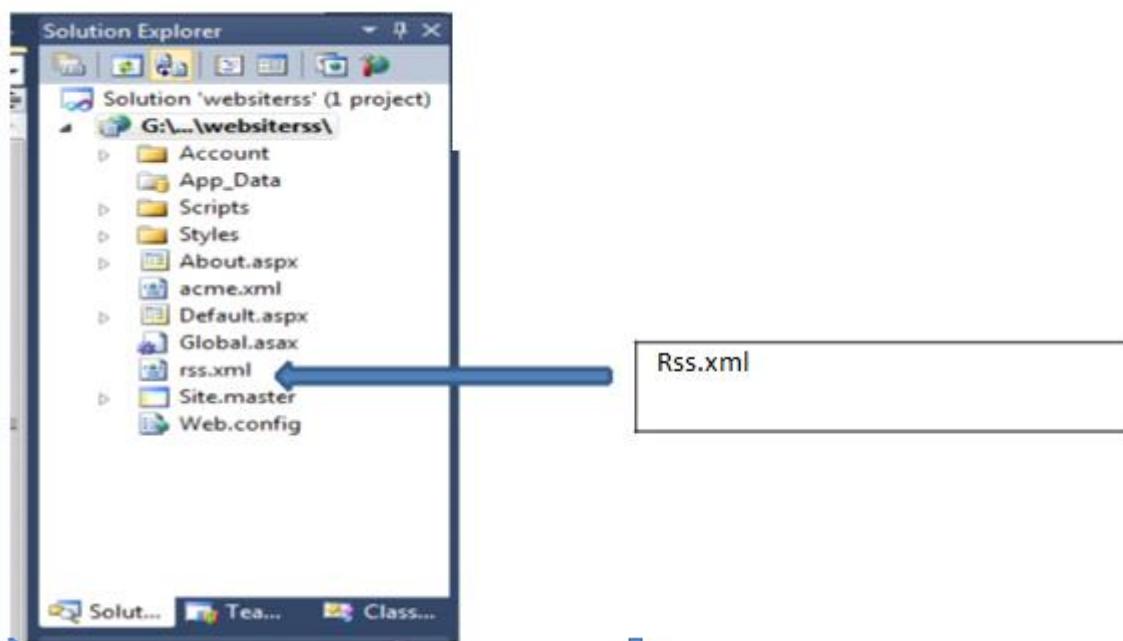
STEP 3: Open the software visual studio 2010

Do the following

File-> new-> website-> visual C#-> ASP.NET website-> OK

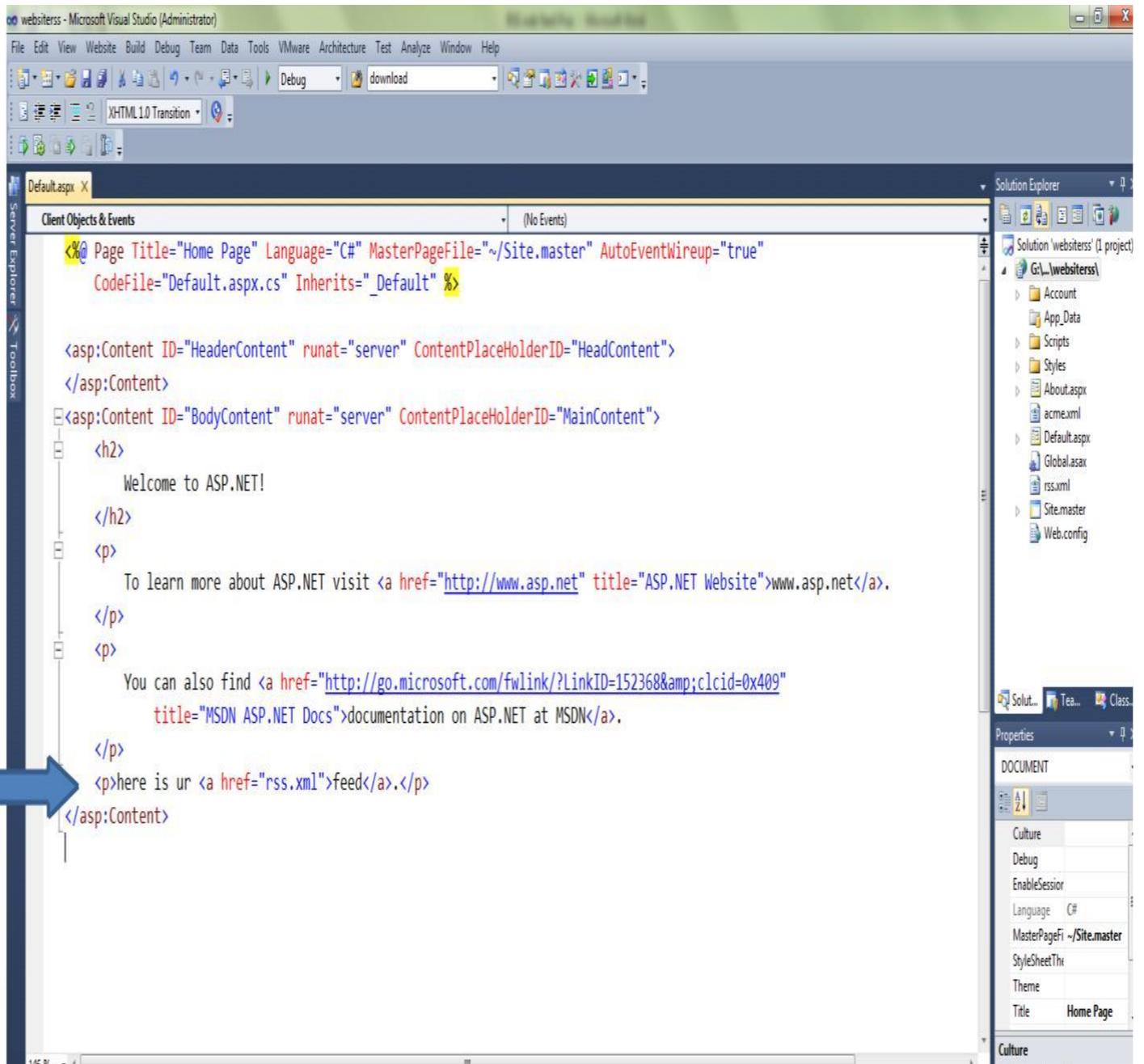


STEP 4: Now copy that rss file which was saved with .xml extention inside your website folder



STEP 5: Type this in default.aspx

```
<p>here is ur <a href="rss.xml">feed</a>.</p>
```



The screenshot shows the Microsoft Visual Studio interface with the 'Default.aspx' file open in the main editor window. The code editor displays the following ASP.NET markup:

```
<%@ Page Title="Home Page" Language="C#" MasterPageFile="~/Site.master" AutoEventWireup="true"
    CodeFile="Default.aspx.cs" Inherits="_Default" %>

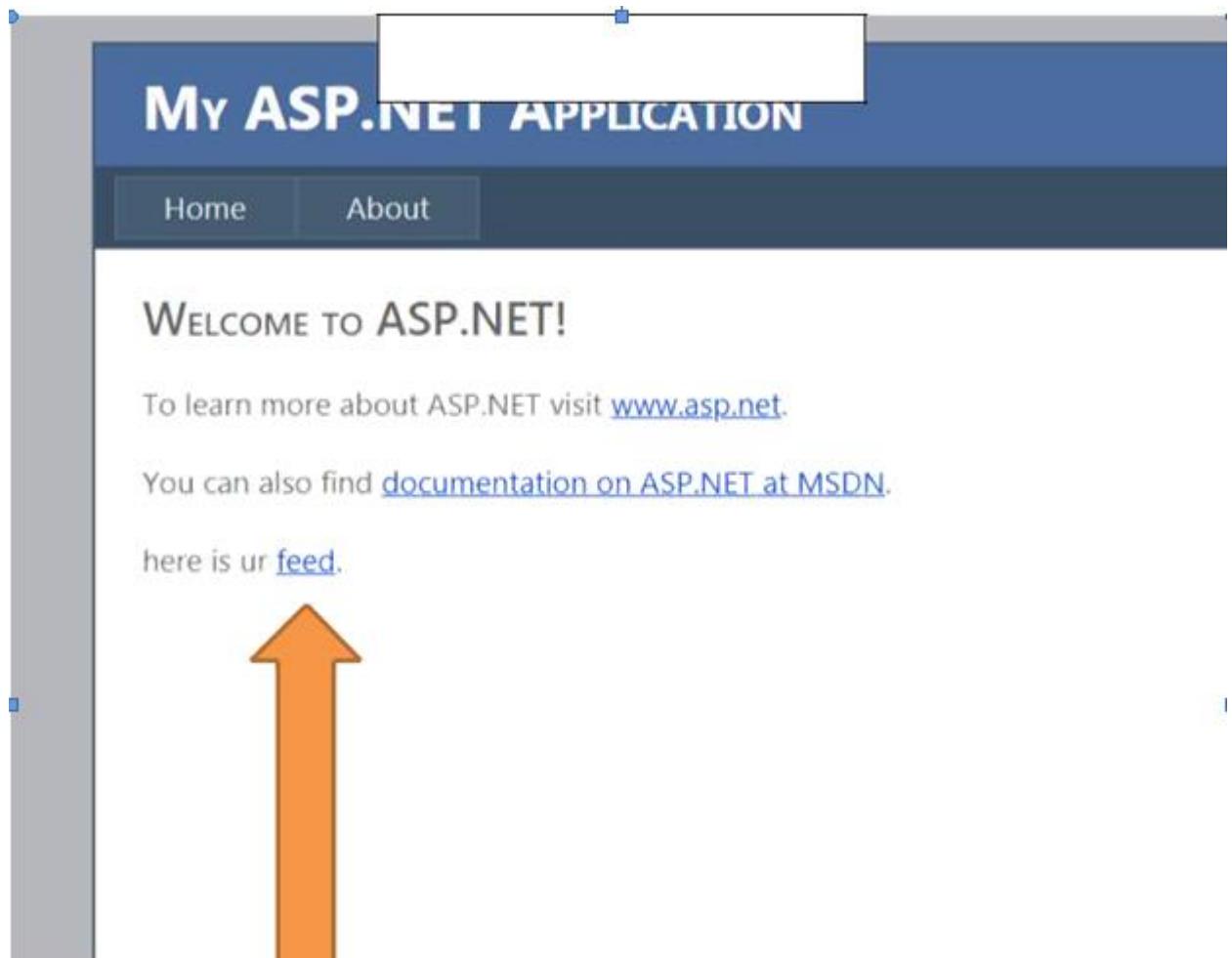
<asp:Content ID="HeaderContent" runat="server" ContentPlaceHolderID="HeadContent">
</asp:Content>

<asp:Content ID="BodyContent" runat="server" ContentPlaceHolderID="MainContent">
    <h2>
        Welcome to ASP.NET!
    </h2>
    <p>
        To learn more about ASP.NET visit <a href="http://www.asp.net" title="ASP.NET Website">www.asp.net</a>.
    </p>
    <p>
        You can also find <a href="http://go.microsoft.com/fwlink/?LinkId=152368&clcid=0x409"
            title="MSDN ASP.NET Docs">documentation on ASP.NET at MSDN</a>.
    </p>
    <p>here is ur <a href="rss.xml">feed</a>.</p>
</asp:Content>
```

The Solution Explorer on the right shows the project structure with files like 'Default.aspx', 'Global.asax', and 'rss.xml'. The Properties window on the far right shows settings for the 'Default.aspx' file, including 'Title' set to 'Home Page'.

STEP 6: Run the page

STEP 7: output



Click On feed

STEP 8: The RSS web feed as output

 Feed for W3Schools Home Page
Subscribe to this feed using: [Bloglines](#) [Subscribe Now](#)
 Always use this reader to subscribe to feeds.

Feed preview

RSS Tutorial
New RSS tutorial on W3Schools

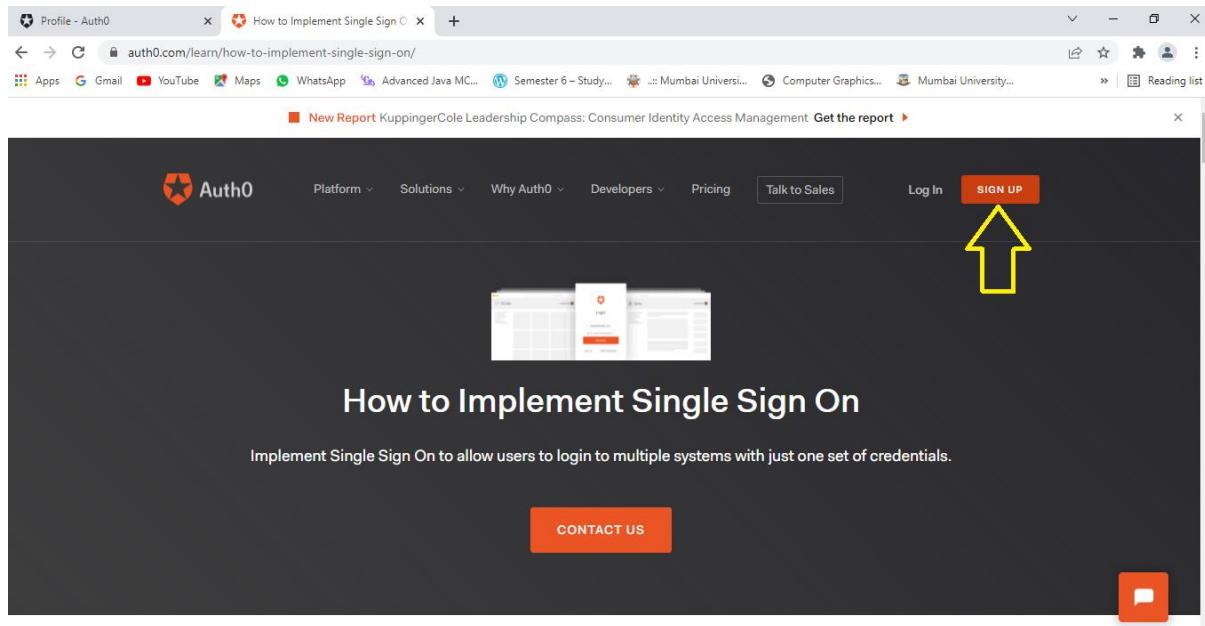
XML Tutorial
New XML tutorial on W3Schools

Practical 8

Aim: Study and implementation of Single-Sing-On.

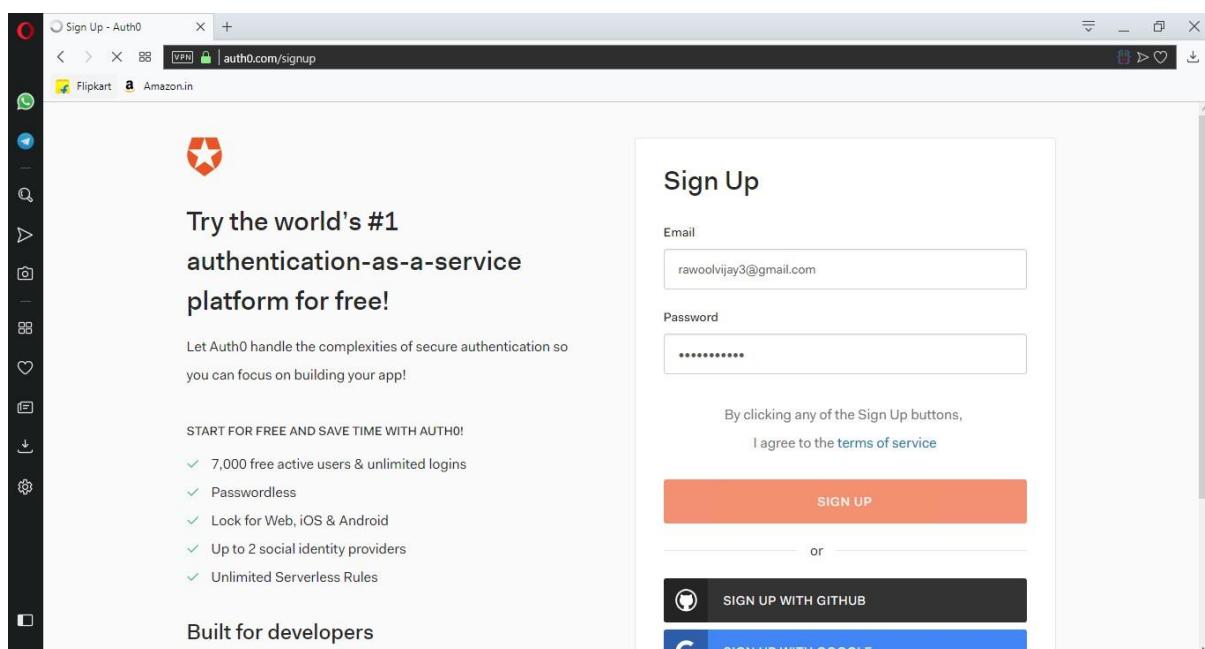
Go to following link.

<https://auth0.com/learn/how-to-implement-single-sign-on/>

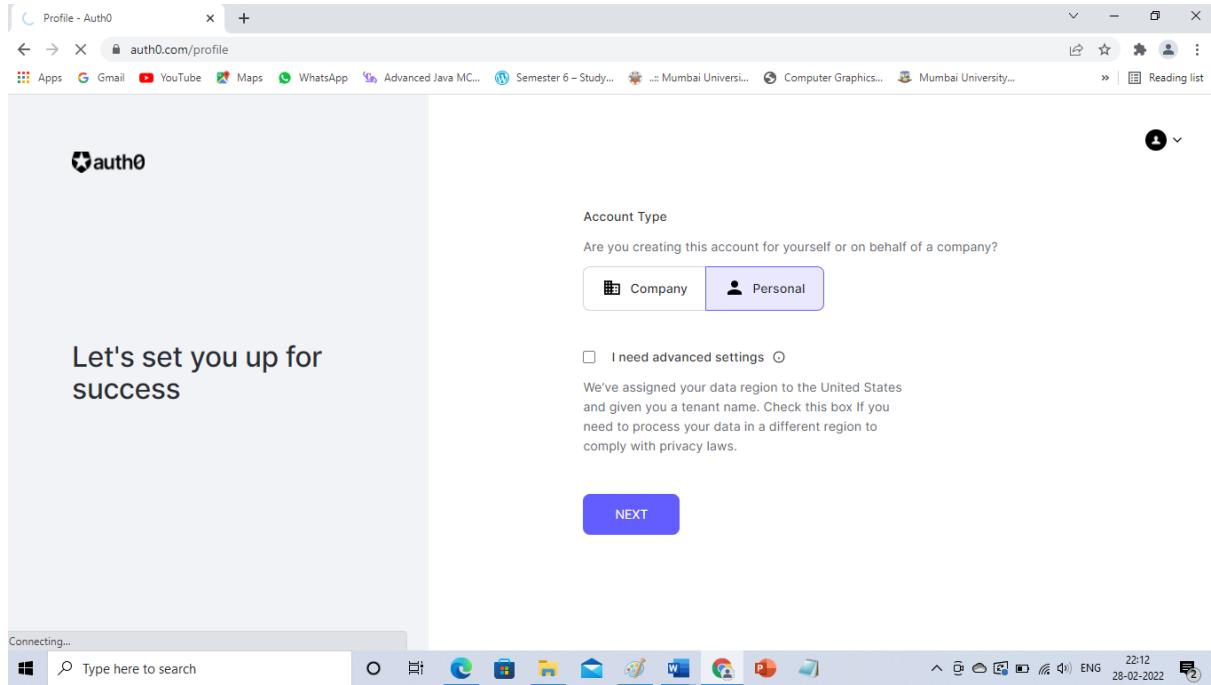


Steps

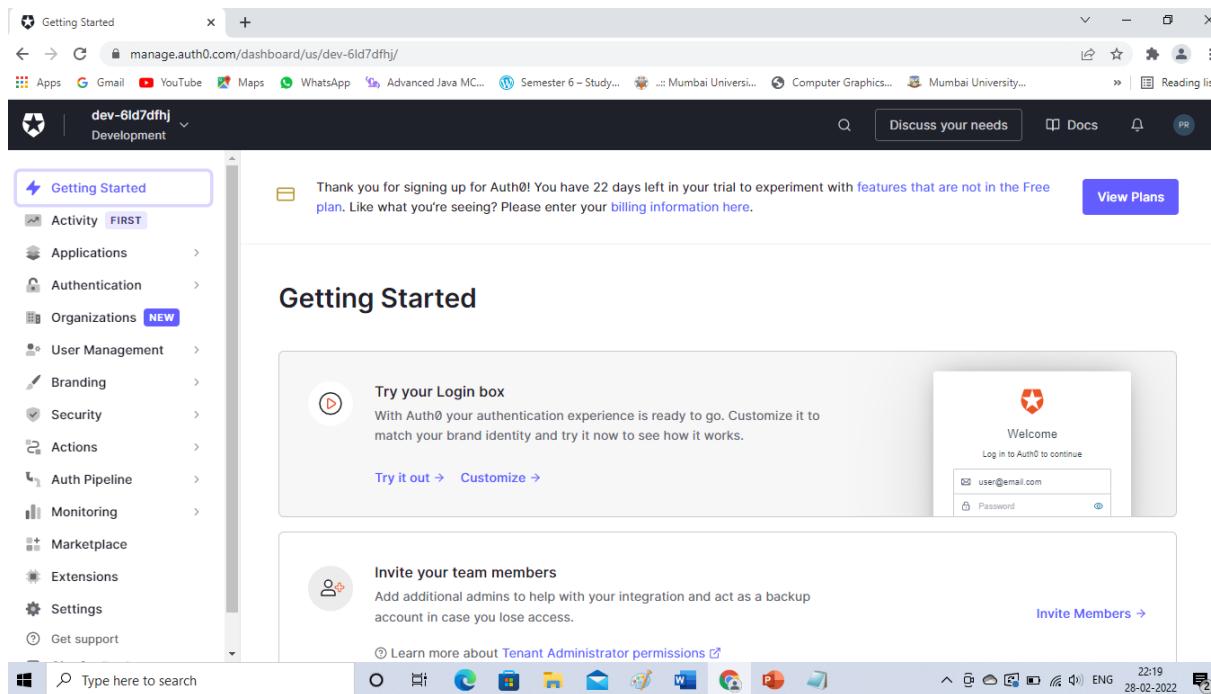
- Click on sign up
- Enter Your Email ID
- Click continue
- Set password



- In “**ACCOUNT TYPE**” panel select “**Personal**” then
- Click next



- You will See the dashboard



- Now go to Authentication-----Social

The screenshot shows the Auth0 dashboard for a new application named 'dev-6ld7dfhj'. The left sidebar is collapsed, and the main content area displays a 'Getting Started' section with two cards:

- Try your Login box:** A card showing a screenshot of a login form with a red star icon and the text 'Welcome'. It includes a 'Log in to Auth0 to continue' button and input fields for 'user@email.com' and 'Password'.
- Invite your team members:** A card with a user icon and the text 'Add additional admins to help with your integration and act as a backup account in case you lose access.' It includes a 'Invite Members' button.

A message at the top of the page says: "Thank you for signing up for Auth0! You have 22 days left in your trial to experiment with features that are not in the Free plan. Like what you're seeing? Please enter your billing information here." A 'View Plans' button is also present.

The screenshot shows the Auth0 dashboard for the same application 'dev-6ld7dfhj'. The left sidebar is collapsed, and the main content area displays a 'Social Connections' section with a single connection listed:

- google-oauth2**: A card showing the Google logo and the text 'Google / Gmail'. It indicates '1 Application enabled'.

A message at the top of the page says: "Thank you for signing up for Auth0! You have 22 days left in your trial to experiment with features that are not in the Free plan. Like what you're seeing? Please enter your billing information here." A 'View Plans' button is also present.

- Now click on google-oauth2
- Click on Try Connection

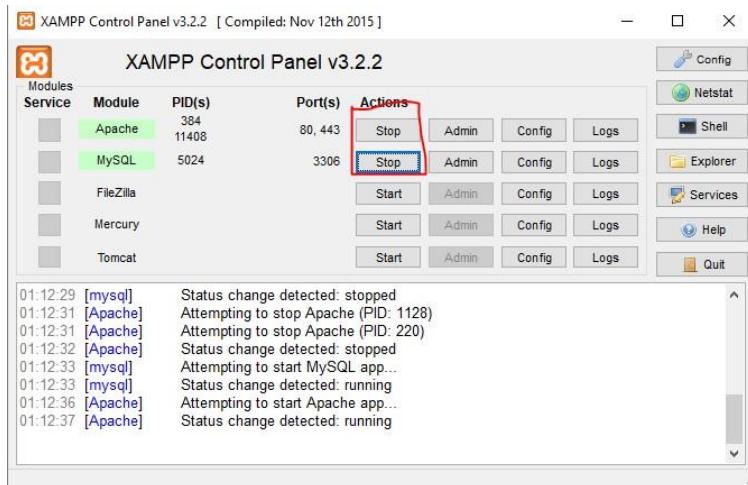
The screenshot shows the Auth0 dashboard with the URL https://manage.auth0.com/dashboard/us/dev-6ld7dfhj/connections/social/con_Lc05RS4QC61Diaau/settings. The left sidebar is open, showing various settings sections like Getting Started, Activity, Applications, Authentication (selected), Organizations (NEW), User Management, Branding, Security, Actions, Auth Pipeline, and Monitoring. The main content area displays a "Social Connections" section for a "google-oauth2" connection. The connection details show "Google / Gmail" and "Identifier con_Lc05RS4QC61Diaau". There are two buttons: "Try Connection" and "Setup guide". A red arrow points to the "Try Connection" button. Below it, a warning message states: "⚠️ This connection is using Auth0 development keys. Auth0 development keys are intended for testing and are not recommended for Production environments. This connection should be configured with your own keys to enable SSO, federated logout, and other features. More information about Social Connection developer keys." The bottom of the screen shows the Windows taskbar with various pinned icons and system status.

- You will get redirected to Google Accounts.
- Now enter your Email ID and password and submit.

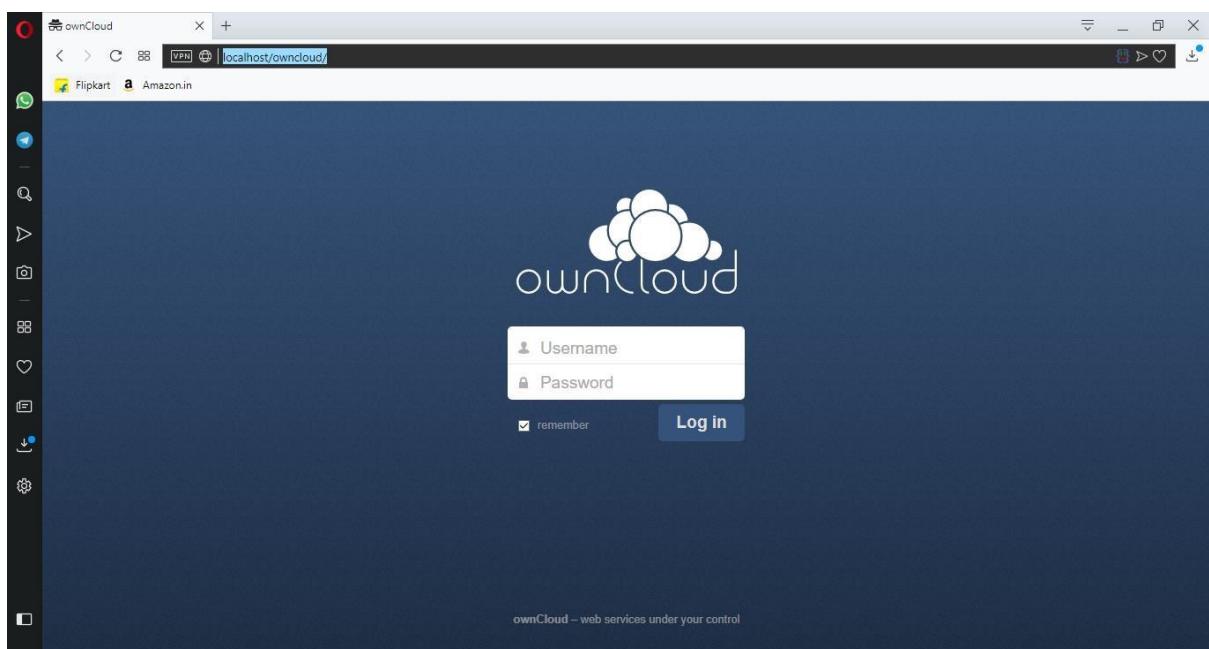
Practical 9

Aim: User Management in Cloud.

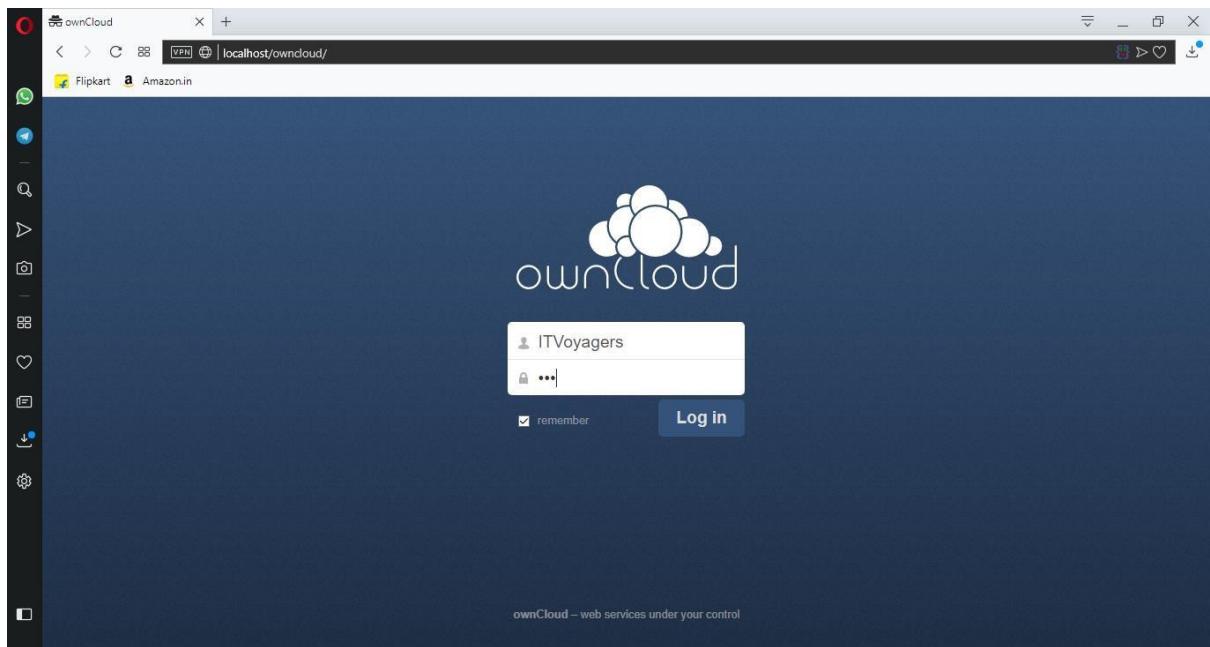
First open XAMPP Control Panel and start “Apache” and “MySQL” services.



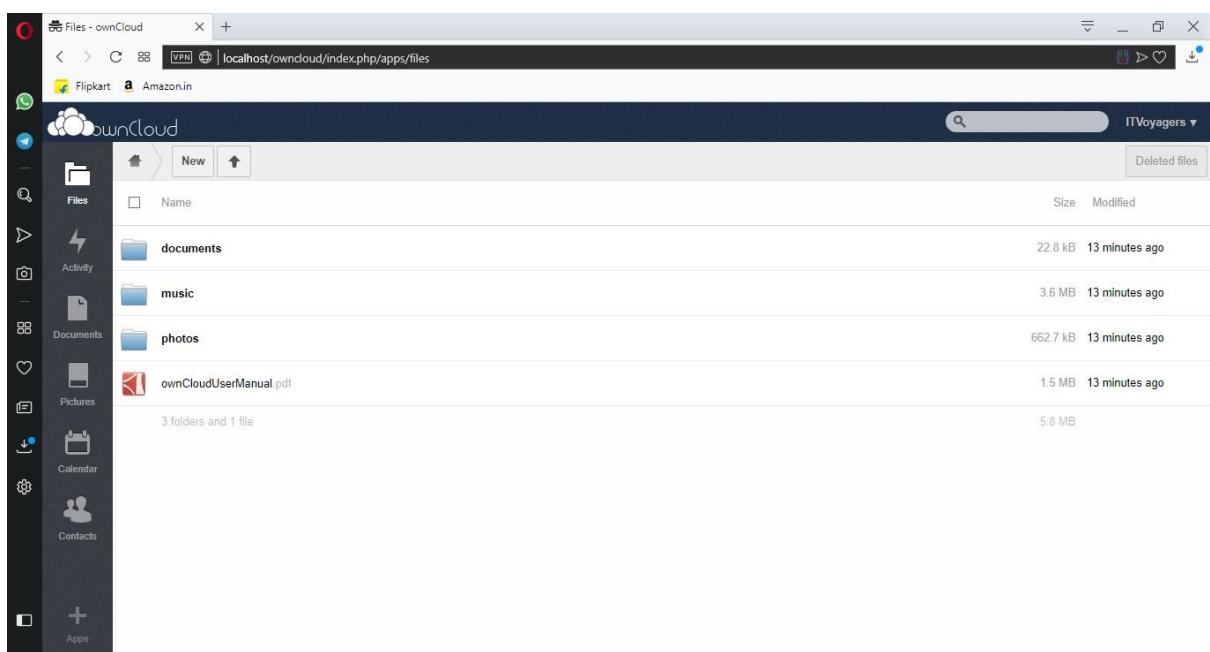
Open browser and type “localhost/owncloud/” in URL bar and press “enter”.



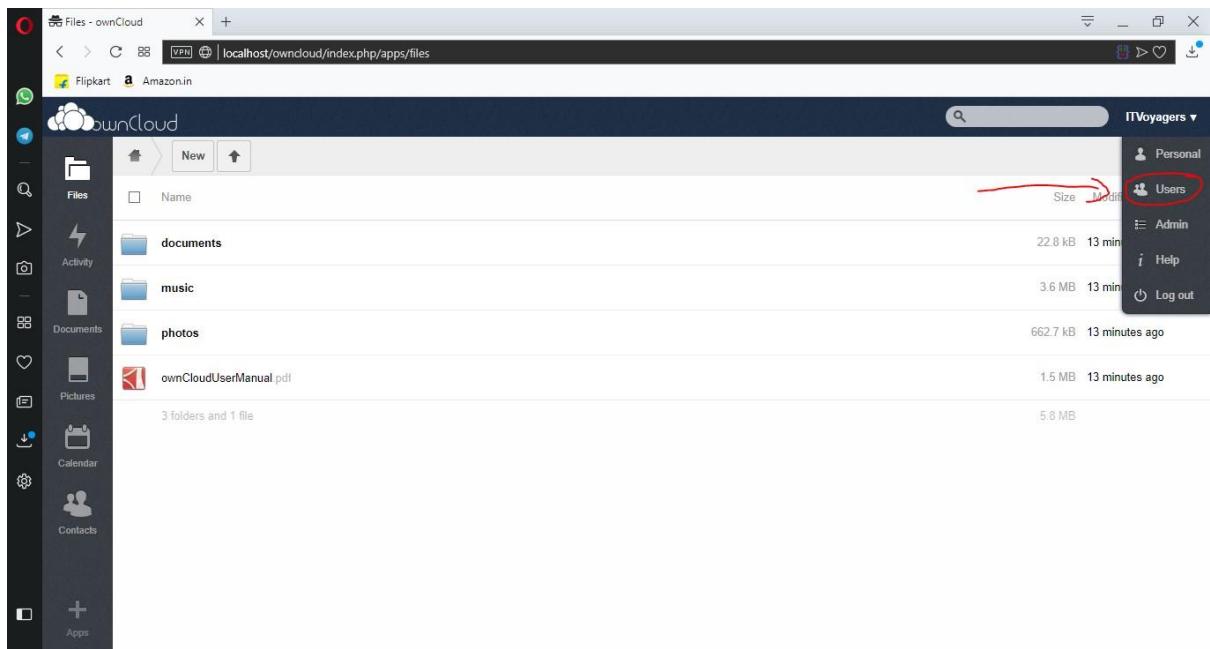
Enter admin name and password which you have set while creating account and click on “Log in”.



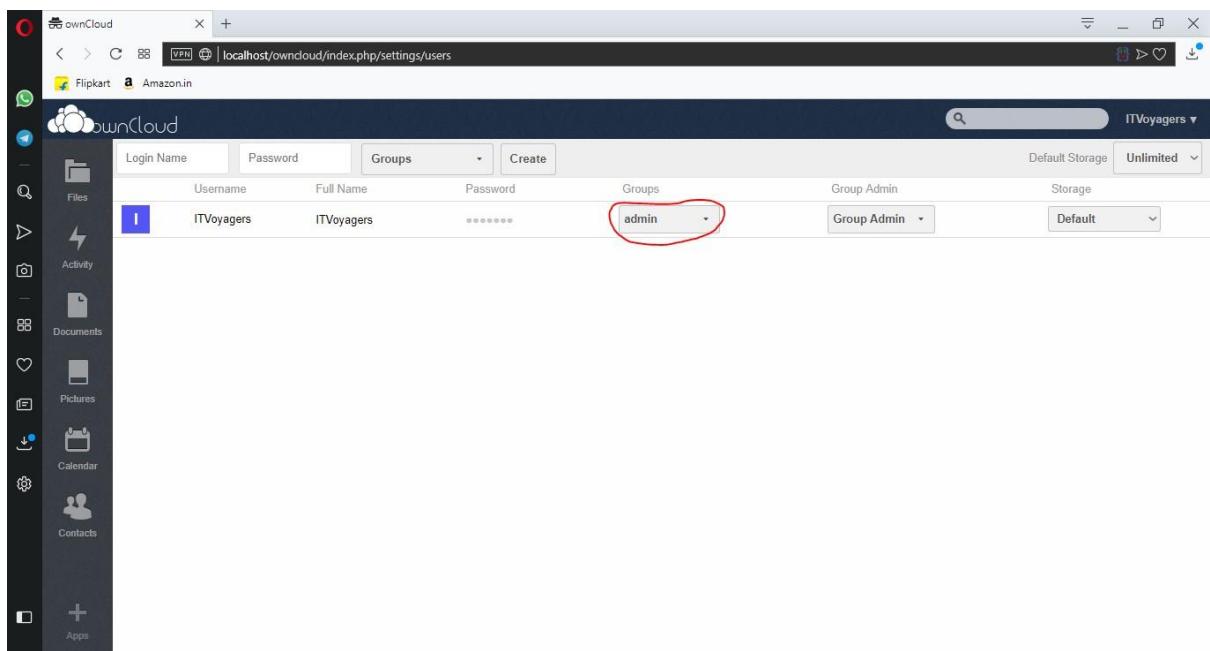
Following dashboard will get load.



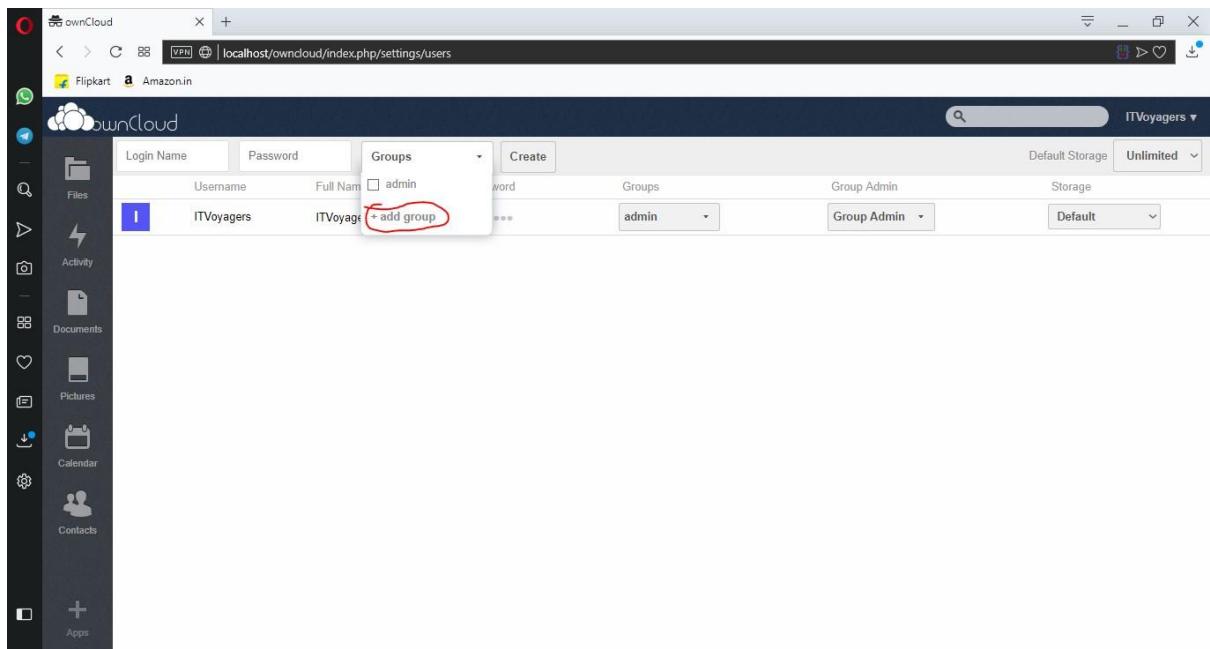
Now go to “Users”.



You can see that there is only user which is admin, which is in Group admin

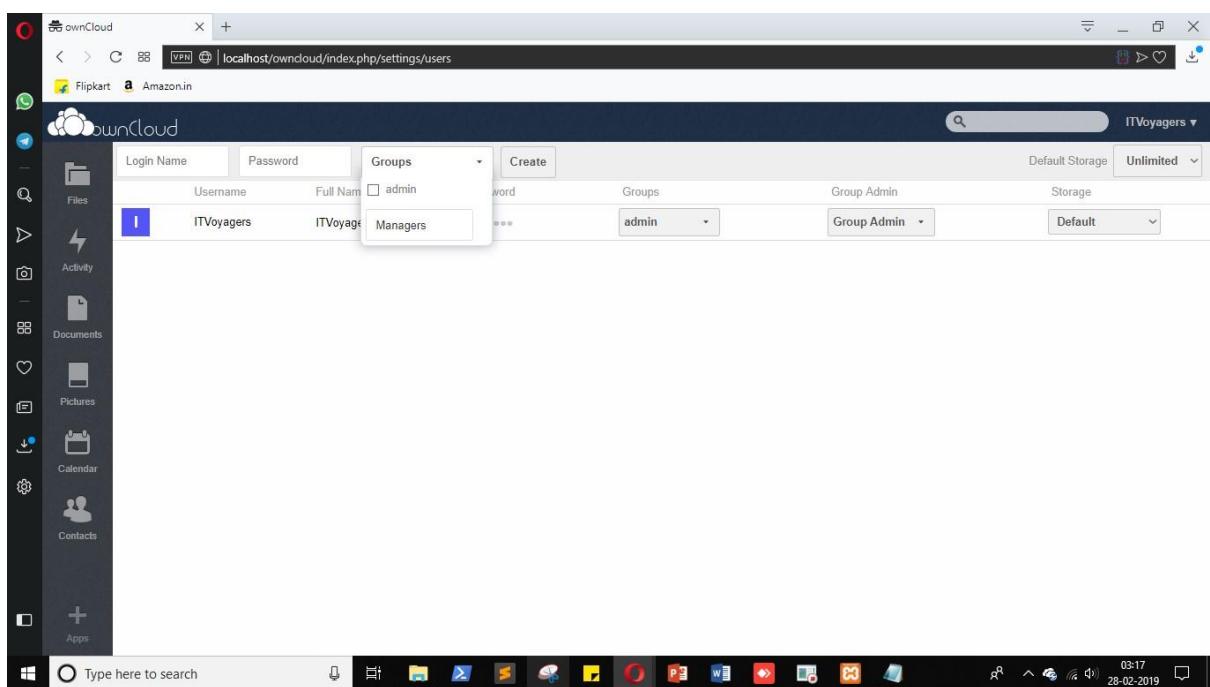


Now let's add group, for that go to "**Group**" > "**add group**".

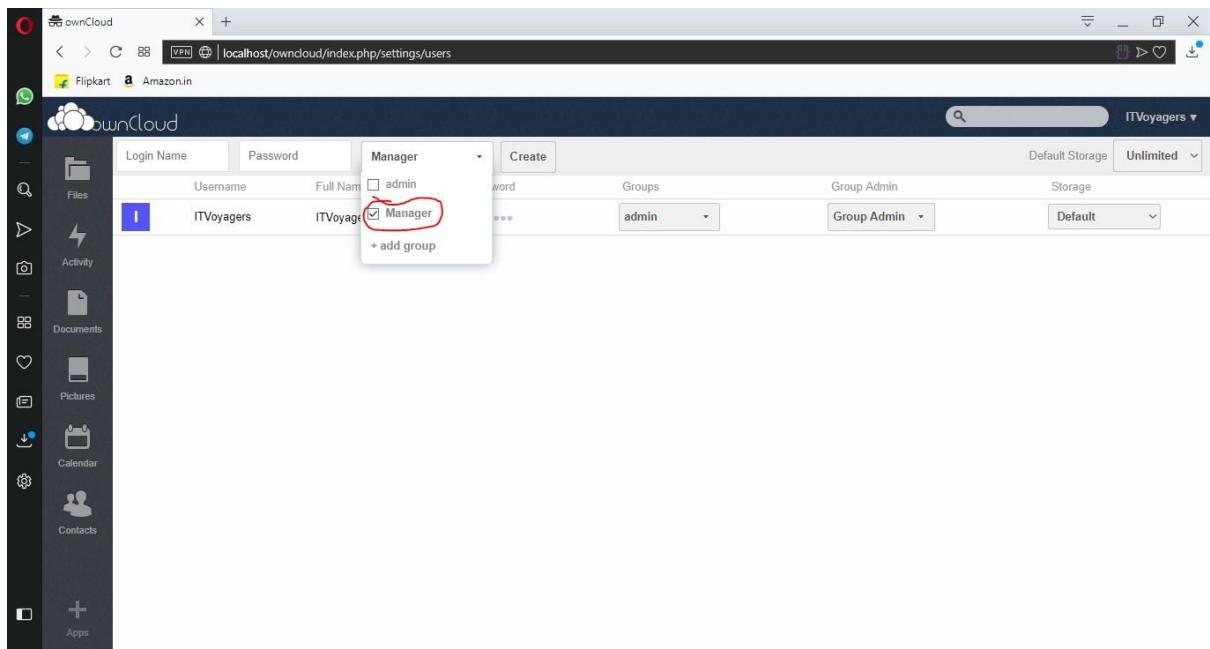


Enter group name and press “enter”.

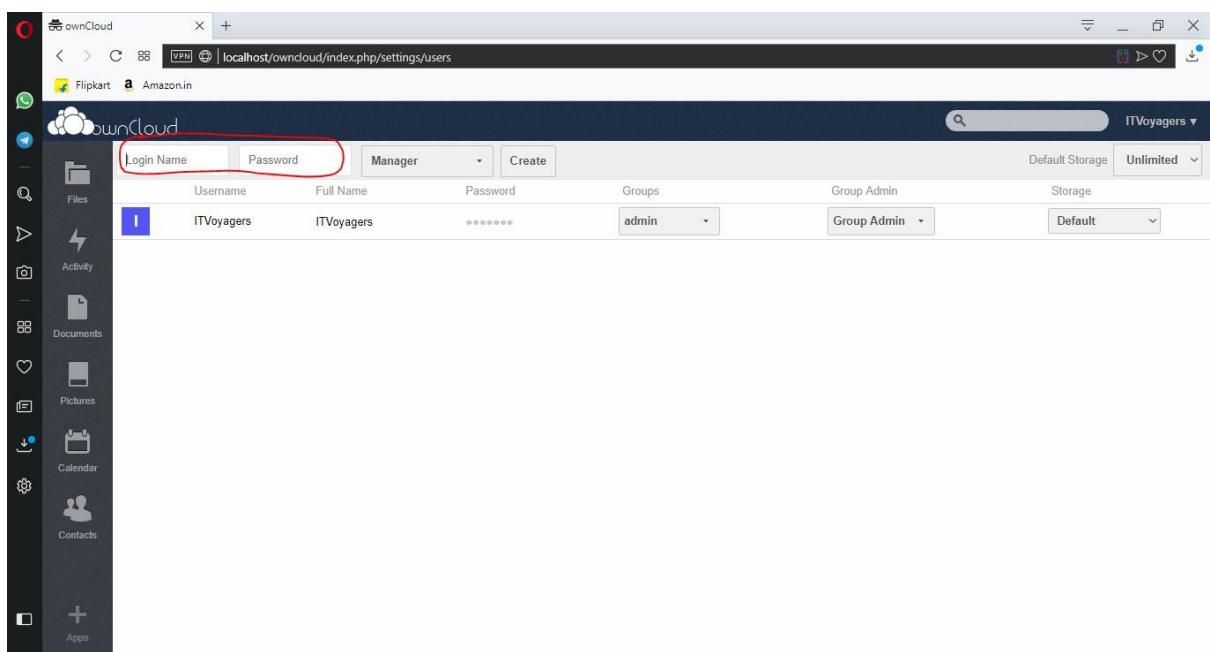
Enter group name and press “enter”.

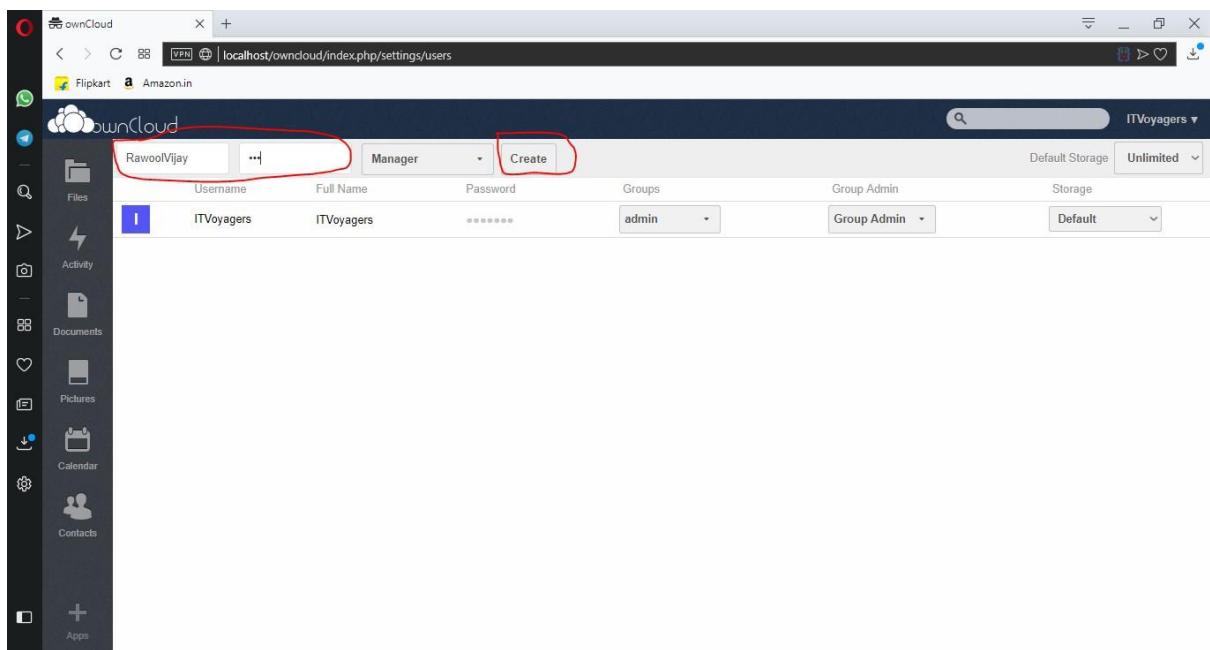
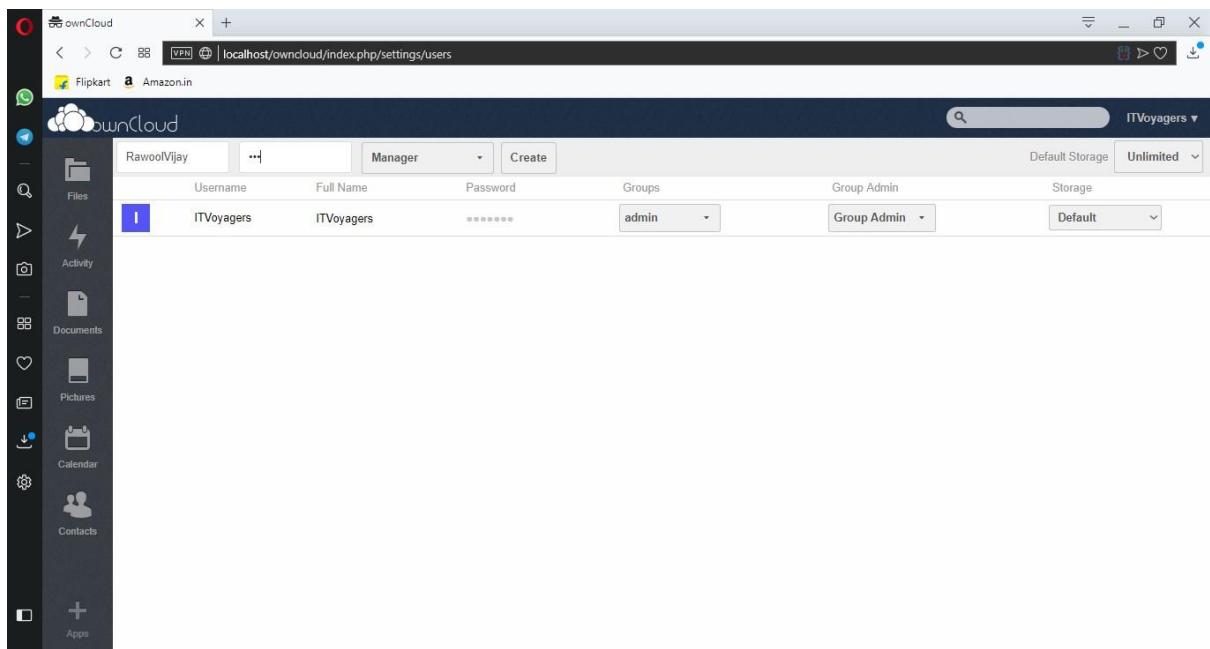


Our group is been added, now select it.



Now enter “Login Name” and “Password” for the user and click on “Create”.





The screenshot shows the ownCloud web interface at `localhost/owncloud/index.php/settings/users`. The sidebar on the left includes icons for Files, Activity, Documents, Pictures, Calendar, and Contacts. The main content area displays a table of users:

	Login Name	Password	Manager	Create	Groups	Group Admin	Default Storage	Storage
I	ITVoyagers	ITVoyagers	*****		admin	Group Admin	Default	Unlimited
R	RawoolVijay	RawoolVijay	*****		Manager	Group Admin	Default	Unlimited

Our user is been added we can change the storage limit for the new user.

The screenshot shows the same ownCloud interface. The 'Storage' dropdown for the user 'RawoolVijay' is open, displaying options: Default, Unlimited, 1 GB, 5 GB, 10 GB, and Other The '1 GB' option is highlighted with a blue selection bar.

Default limit is unlimited as mentioned above.

Username	Full Name	Password	Groups	Group Admin	Storage
I	ITVoyagers	*****	admin	Group Admin	Default
R	RawoolVijay	*****	Manager	Group Admin	1 GB

Let's add another user but this time in “admin” group.

Username	Full Name	Password	Groups	Group Admin	Storage
I	ITVoyagers	*****	admin	Group Admin	Default
R	RawoolVijay	*****	Manager	Group Admin	1 GB

If it shows “admin, admin” in group just click on it and uncheck one “admin”.

Username	Full Name	Password	Groups	Group Admin	Storage
A	Aniket	*****	admin, admin	Group Admin	Default
I	ITVoyagers	*****	admin	Group Admin	Default
R	RawoolVijay	*****	Manager	Group Admin	1 GB

Username	Full Name	Password	Groups	Group Admin	Storage
A	Aniket	*****	<input type="checkbox"/> admin <input checked="" type="checkbox"/> admin <input type="checkbox"/> Manager	Group Admin	Default
I	ITVoyagers	*****	<input type="checkbox"/> admin <input checked="" type="checkbox"/> admin <input type="checkbox"/> Manager	Group Admin	Default
R	RawoolVijay	RawoolVijay	<input type="checkbox"/> admin <input checked="" type="checkbox"/> admin <input type="checkbox"/> Manager	Group Admin	1 GB

Username	Full Name	Password	Groups	Group Admin	Storage
A	Aniket	*****	<input type="checkbox"/> admin <input checked="" type="checkbox"/> admin <input type="checkbox"/> Manager	Group Admin	Default
I	ITVoyagers	*****	<input type="checkbox"/> admin <input checked="" type="checkbox"/> admin <input type="checkbox"/> Manager	Group Admin	Default
R	RawoolVijay	*****	<input type="checkbox"/> admin <input type="checkbox"/> Manager	Group Admin	1 GB

Note: Sometimes it fails to register user in “admin” group so please check before logging out. You can check by refreshing the page.

Now “**Log out**” from the admin account.

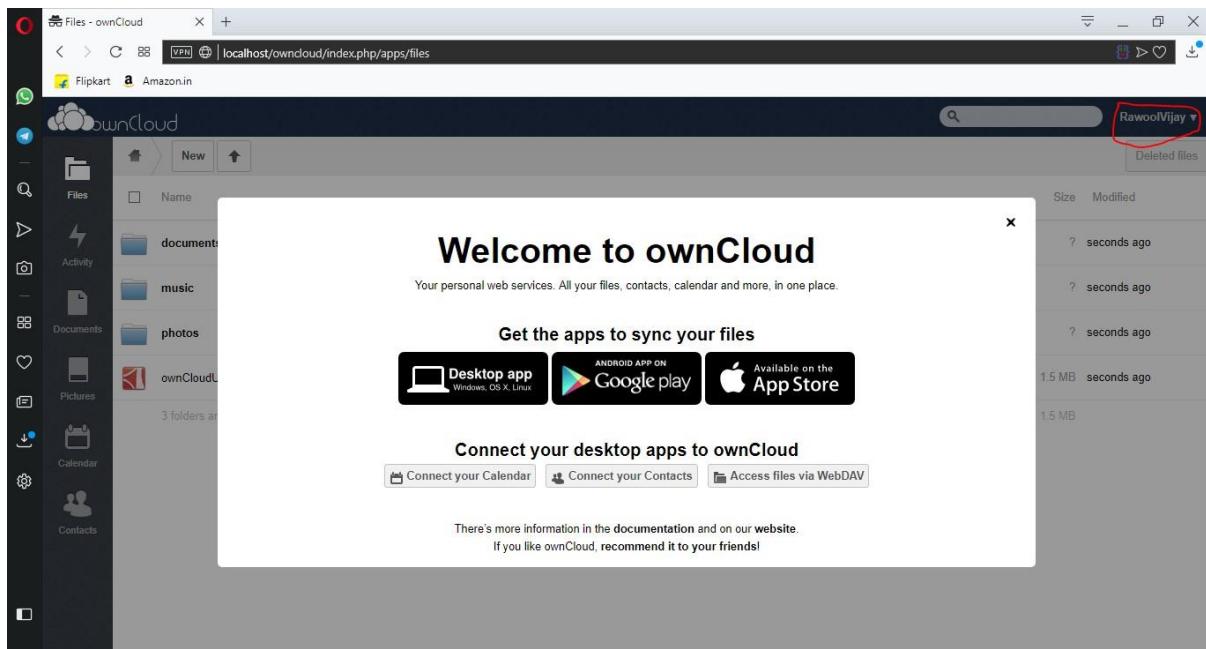
The screenshot shows the ownCloud web interface for managing users. On the left is a sidebar with icons for Files, Activity, Documents, Pictures, Calendar, and Contacts. The main area displays a table of users:

	Username	Full Name	Password	Groups	Group Admin	Storage
A	Aniket	Aniket	*****	admin	Group Admin	Default
I	ITVoyagers	ITVoyagers	*****	admin	Group Admin	Default
R	RawoolVijay	RawoolVijay	*****	Manager	Group Admin	1 GB

In the top right corner, there is a dropdown menu for 'ITVoyagers' with options: Personal, Users, Admin, Help, and Log out. The 'Log out' button is highlighted with a red box.

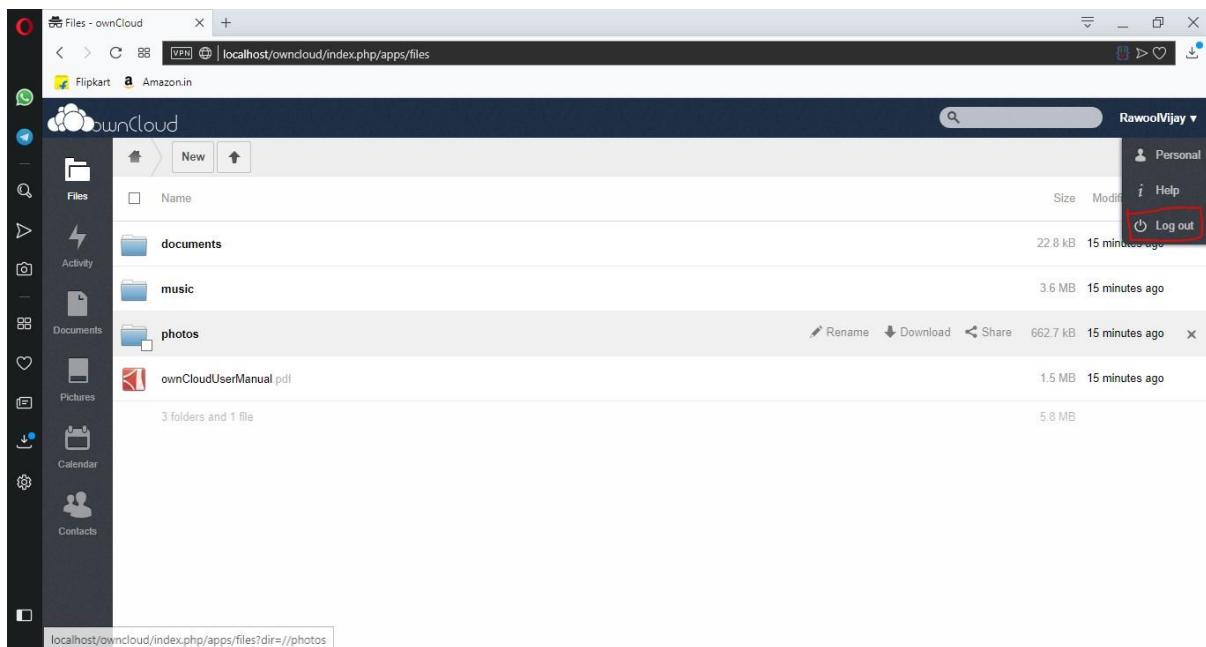
Try log in with user you just created.

The screenshot shows the ownCloud login page. It features the ownCloud logo at the top center. Below it is a login form with fields for 'User' (RawoolVijay) and 'Password' (with a placeholder '...'). There is a 'remember' checkbox and a 'Log in' button. The 'Log in' button is highlighted with a red box.

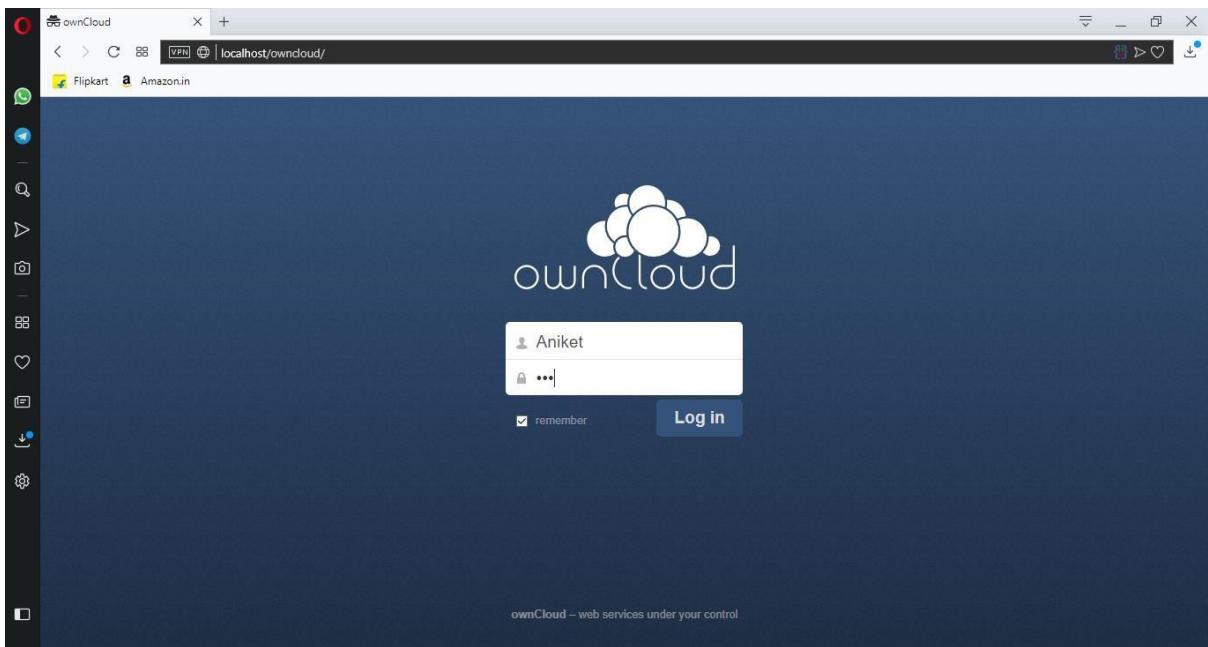


Yes we have logged in.

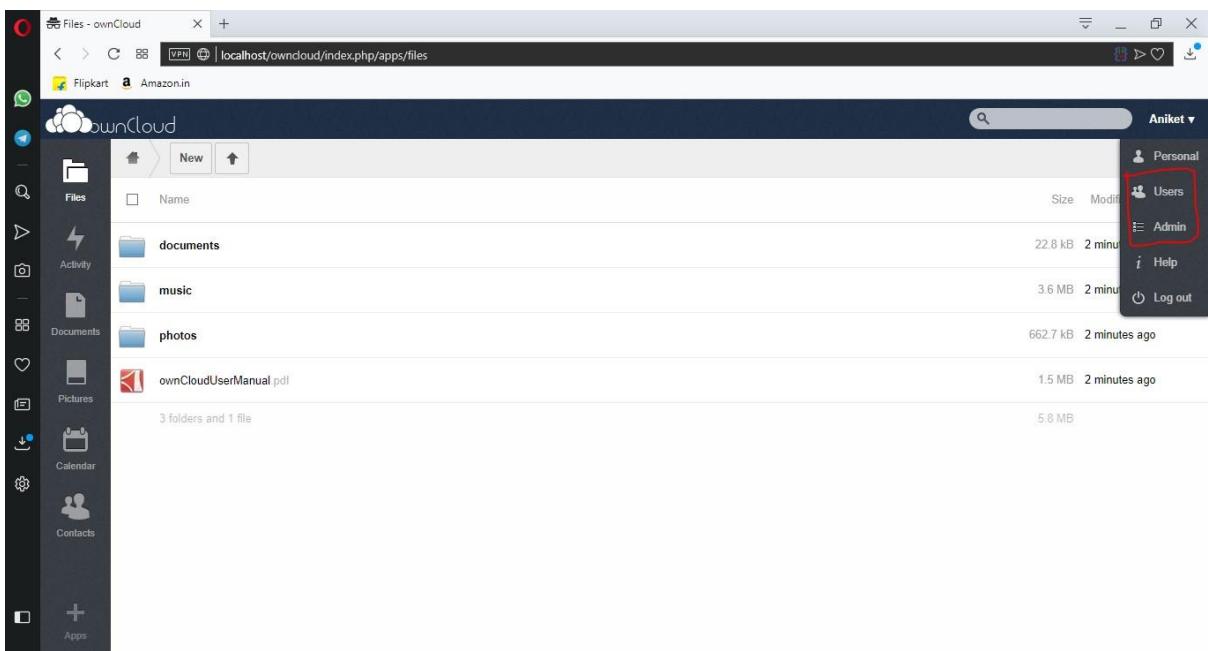
As you can see this user don't have any privilege link adding users and creating group because it's not in "admin" group, now "log out" from the account.



Now let's try to log in from the user account who is in "admin" group.



Enter login details and click on “**Log in**”.



As you can see this user has the privileges of admin because he is in “**admin**” group.

Note: If it doesn't shows the privilege then go to admin account and check if this user group is “**admin**” group.

This user has all the rights that admin possess like adding or deleting user.

The screenshot shows the ownCloud web interface for managing users. The URL in the browser is `localhost/owncloud/index.php/settings/users`. The interface includes a sidebar with various icons for Files, Activity, Documents, Pictures, Calendar, Contacts, and Apps. The main area displays a table of users:

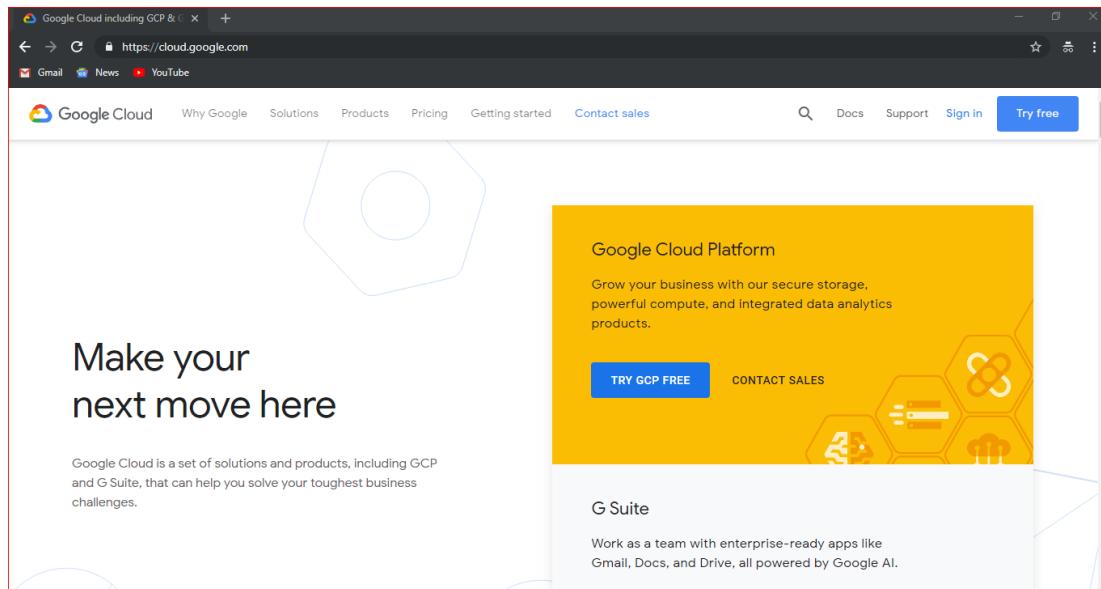
	Username	Full Name	Password	Groups	Group Admin	Storage
A	Aniket	Aniket	*****	admin	Group Admin	Default
I	ITVoyagers	ITVoyagers	*****	admin	Group Admin	Default
R	RawoolVijay	RawoolVijay	*****	Manager	Group Admin	1 GB

Practical 10

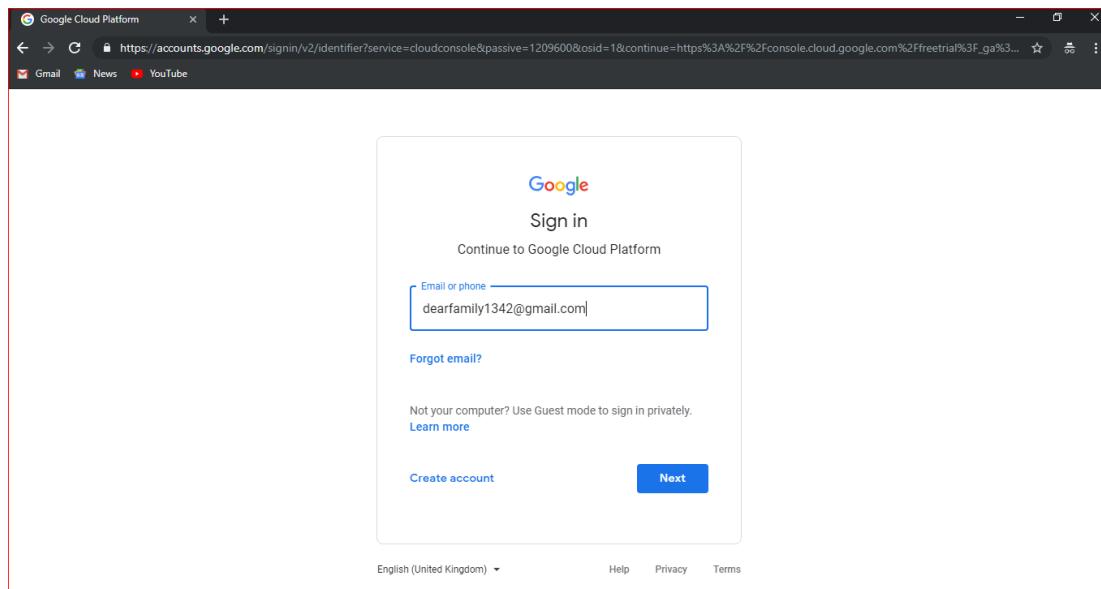
AIM :- Case study on Google Cloud Platform(**In GCP charge only 1/-rupee for creating account and after 3day of tryer free gcp it will take the amount**).

STEPS:-

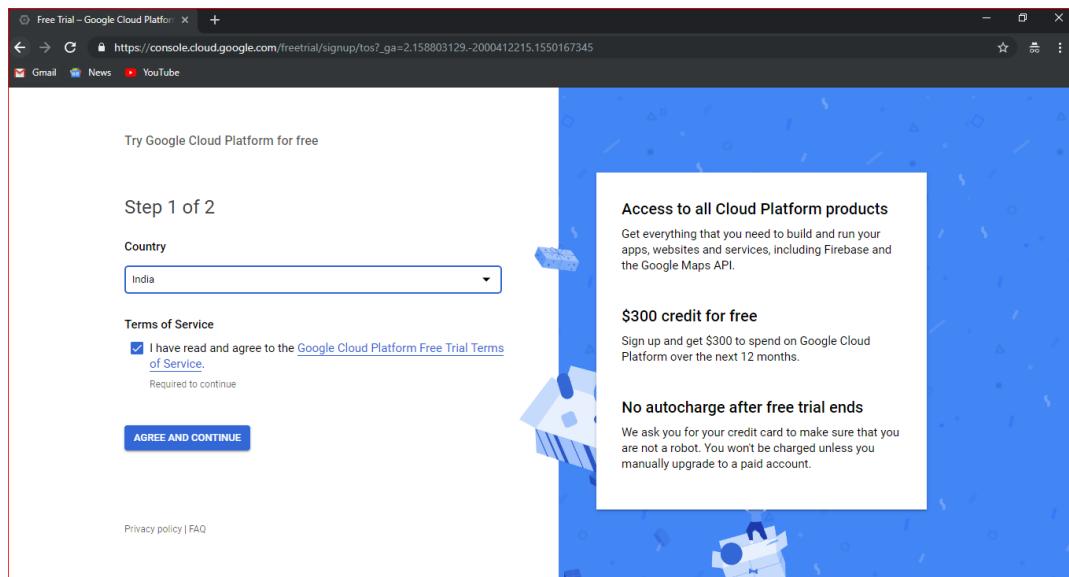
- 1) Open any browser and type <https://cloud.google.com/> and then click on **TRY GCP FREE**.



- 2) After click on TRY GCP FREE your email page is open for sign in, **enter your email-id and password**.



- 3) After login your account it will ask to **accept the service**, then click on **AGREE AND CONTINUE**.



Enter the details here as shown here

The screenshot shows the second step of the sign-up process. It features a red border around the white form area. The form is titled 'Step 2 of 2' and contains 'Customer info' sections for 'Account type' (set to 'Individual'), 'Tax information' (status 'Unregistered individual'), and 'Name and address' (details: 'anju patel', 'Room no.7, Vasantu yadav chawl , Appapada Malad(East)', 'Mumbai, Maharashtra 400097', 'India', '+91 9867471608'). Each section has an edit icon (pencil) next to it.

Enter the card detail here to make payment and then click on START MY FREE TRIAL.

How you pay



Monthly automatic payments

You pay for this service on a regular monthly basis, via an automatic charge when your payment is due.



Payment method (i)

Card number

#

Card number is required



The personal information that you provide here will be added to your payments profile. It will be stored securely and treated in accordance with the [Google Privacy Policy](#).

START MY FREE TRIAL

Now it will ask for your **CVC number** enter cvc number , then click on **CONTINUE**.

X Verify RuPay 8291

RuPay RuPay 8291

When you verify a credit card, you will see a third-party browser window where you will need to verify your info. You will also see a small charge made to your credit card, this is a temporary authorisation and will be refunded.

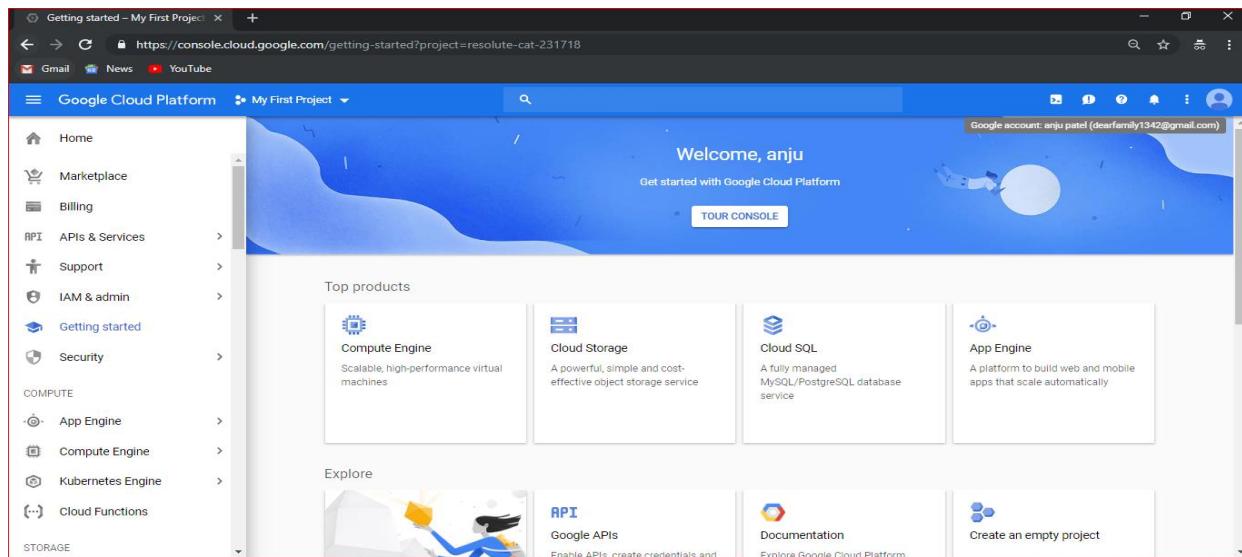
Look for the 3-digit number on the back of your RuPay-8291.

CVC

8291

CANCEL **CONTINUE**

4) After doing all the above step your free tryer gcp window appear.



5) To check Payemt Overview, go to Billing

A screenshot of the Google Cloud Platform dashboard. The URL is https://console.cloud.google.com/home/dashboard?project=resolver-cat-231718. The dashboard has a blue header with "Home - My First Project - Google". The sidebar on the left is identical to the one in the previous screenshot, with "Billing" now highlighted. The main content area shows "Project info" (Project name: My First Project, Project ID: resolver-cat-231718, Project number: 218724114731), "API APIs" (Requests (requests/sec) chart showing no data available), "Google Cloud Platform status" (All services normal), "Error Reporting" (No sign of any errors), and "News" (Recent news items). A status bar at the bottom shows the URL https://console.cloud.google.com/billing?project=resolver-cat-231718.

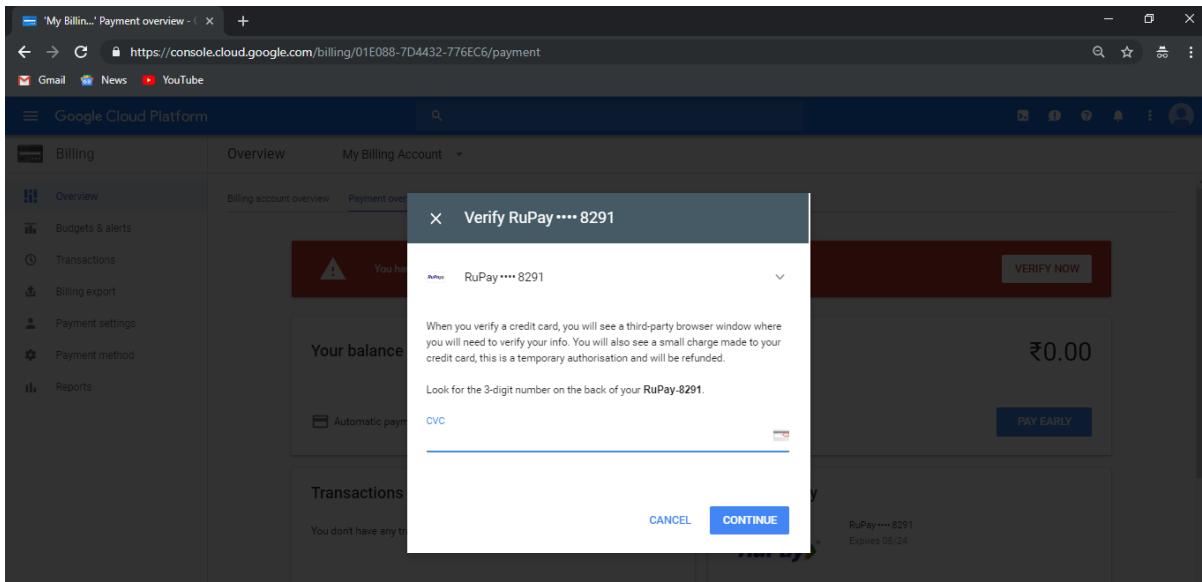
Now click on Payment Overview.

The screenshot shows the Google Cloud Platform Billing Overview page. On the left sidebar, under the 'Billing' section, the 'Overview' item is selected. The main content area displays a 'Billing account overview' card with a warning message: 'Your payment information could not be processed. Visit the payment overview page to make sure that your payment information is up to date and to pay any outstanding charges.' Below this, there's a 'Credits' section showing a balance of ₹21,347.25 and 365 days remaining until it ends on 14 Feb 2020. A 'Projects linked to this billing account' section lists 'My First Project' with ID 'resolute-cat-231718'. To the right, a 'My Billing Account' panel shows 'PERMISSIONS' with an 'Add members' button and a 'Search members' input field. A dropdown menu indicates 'Billing Account Administrator (1 member)' with one member listed.

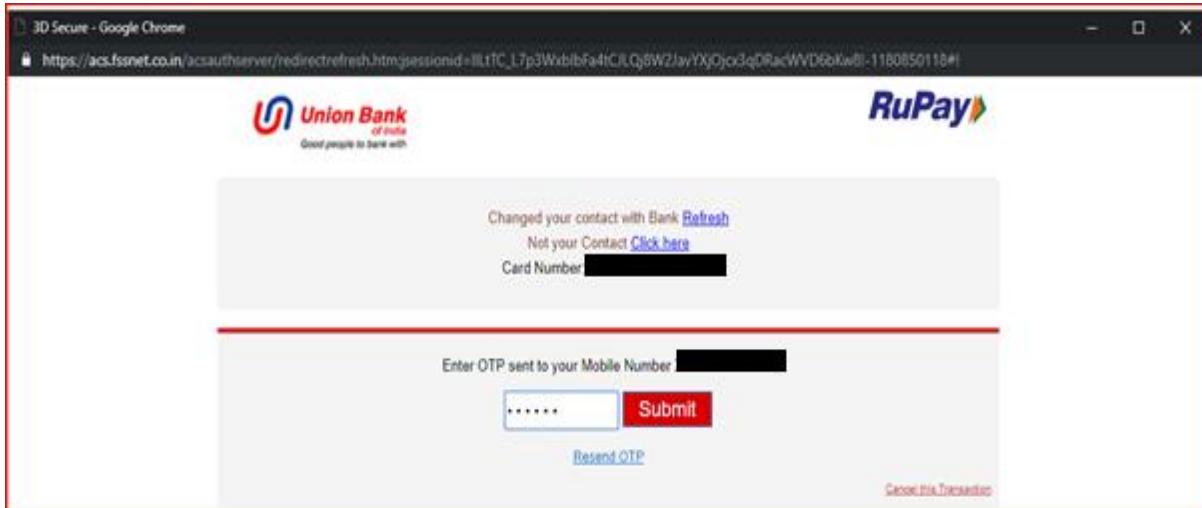
Click on **Verify Now**

The screenshot shows the same Google Cloud Platform Billing Overview page as above, but with a large red box drawn around the 'VERIFY NOW' button located in the 'Payment overview' section. This button is intended to be clicked to complete the verification process for a RuPay card.

Again it will ask for **CVC number**. Enter cvc number , click on **CONTINUE**.



It send the OTP on your registered mobile number, Enter number Click on SUBMIT.



6) Now come back to HOME→Compute Engine→click on VM Instances.

The screenshot shows the Google Cloud Platform Compute Engine dashboard. The left sidebar lists various services: Home, COMPUTE (App Engine, Compute Engine, Kubernetes Engine), STORAGE (Bigtable, Datastore, Firestore, Storage), and SECURITY (Cloud). The 'Compute Engine' service is selected, which has a dropdown menu open. This menu includes options like VM instances, Instance groups, Instance templates, Sole tenant nodes, Disks, Snapshots, Images, TPUs, Committed use discounts, Metadata, Health checks, Zones, Network endpoint groups, Operations, Security scans, and Settings. At the top of the page, there is a banner about upgrading Google Cloud Platform.

7) Now click on CREATE.

The screenshot shows the 'VM instances' page under the 'Compute Engine' section. The left sidebar is identical to the previous screenshot. The main area displays a summary box for 'Compute Engine VM instances'. It contains a brief description: 'Compute Engine lets you use virtual machines that run on Google's infrastructure. Create micro-VMS or larger instances running Debian, Windows or other standard images. Create your first VM instance, import it using a migration service or try the quickstart to build a sample app.' Below this, there are three buttons: 'Create' (highlighted with a red border), 'Import', and 'Take the quickstart'.

- 8) Give your **instance name** and you can give your Machine CPU to 2vCPUs to running better ,then click on **CREATE**.

The screenshot shows the 'Create an instance' wizard in the Google Cloud Platform. The left sidebar lists options: 'New VM instance' (selected), 'New VM instance from template', and 'Marketplace'. The main configuration area includes:

- Name:** thakurcollege
- Region:** us-east1 (South Carolina)
- Zone:** us-east1-b
- Machine type:** 2 vCPUs, 7.5 GB memory, Customise (disabled)
- Container:** Deploy a container image to this VM instance (unchecked)
- Boot disk:** New 10 GB standard persistent disk, Image: Debian GNU/Linux 9 (stretch), Change button
- Identity and API access:**
 - Service account:** Compute Engine default service account
 - Access scopes:** Allow default access (selected)
- Firewall:** Add tags and firewall rules to allow specific network traffic from the Internet.
 - Allow HTTP traffic
 - Allow HTTPS traffic
- Management, security, disks, networking, sole tenancy** (collapsible section)

At the bottom, it says: Your free trial credit will be used for this VM instance. [GCP Free Tier](#). Buttons: **Create** (highlighted in blue), **Cancel**.

- 9) Now here your instance is created, **select the instance and from SSH select Open in new Window**.

The screenshot shows the Google Cloud Platform Compute Engine interface. On the left, there's a sidebar with 'Compute Engine' selected under 'VM instances'. The main area displays a table of VM instances. One instance, 'thakurcollege' in the 'us-east1-b' zone, is highlighted. A context menu is open over this instance, listing options: 'Open in browser window', 'Open in browser window on custom port', 'View gcloud command', and 'Use another SSH client'.

10) Now new Command line window will appear. Here I had done some simple command of linux you can try more command here.

```

dearfamly1342@thakurcollege: ~ - Google Chrome
https://ssh.cloud.google.com/projects/resolute-cat-231718/zones/us-east1-b/instances/thakurcollege?authuser=0&hl=en_GB&project...
Connected, host fingerprint: ssh-rsa 0 21:9D:7D:18:40:F4:D3:92:1E:B7:94:78:00:F0
:8F:CC:5C:35:7F:89:78:88:AD:85:65:39:C4:62:50:87:43:FA
Linux thakurcollege 4.9.0-8-amd64 #1 SMP Debian 4.9.130-2 (2018-10-27) 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.
dearfamly1342@thakurcollege:~$ mkdir tybsccs
dearfamly1342@thakurcollege:~$ cat > gcp
This is my first instance created on google Cloud Platform.^Z
[1]+  Stopped                  cat > gcp
dearfamly1342@thakurcollege:~$ ls
gcp  tybsccs
dearfamly1342@thakurcollege:~$ 

```

11) For stoping the instance click **square symbol**.

Compute Engine - My First Project +

https://console.cloud.google.com/compute/instances?project=resolute-cat-231718&instancesize=50&duration=PT1H

Gmail News YouTube

Google Cloud Platform My First Project

Compute Engine VM instances SHOW INFO PANEL

VM instances

Instance groups

Instance templates

Sole tenant nodes

Disks

Snapshots

Images

Filter VM instances

Name Zone Recommendation Internal IP External IP Connect

thakurcollege us-east1-b 10.142.0.2 (nic0) 34.73.5.90 SSH

Stop

Columns

The screenshot shows the Google Cloud Platform Compute Engine interface. On the left, there's a sidebar with options like VM instances, Instance groups, Instance templates, Sole tenant nodes, Disks, Snapshots, and Images. The main area is titled 'VM instances' and shows a table with one row. The table columns are Name, Zone, Recommendation, Internal IP, External IP, and Connect. The single row contains 'thakurcollege', 'us-east1-b', '10.142.0.2 (nic0)', '34.73.5.90', 'SSH', and a three-dot menu icon. There are also 'Stop' and 'Columns' buttons at the top of the table. A search bar labeled 'Filter VM instances' is above the table.

FINISH
