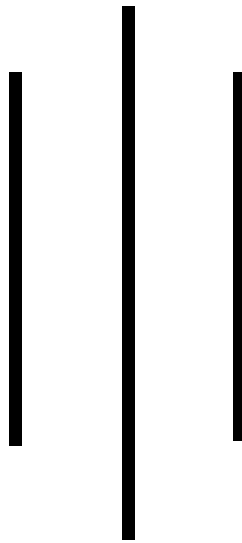




NIMS COLLEGE

(Tribhuvan University)

Kanibahal, Lalitpur



Lab Report of Cloud Computing

Submitted by
Raj Kumar Karki
Semester: 7th

Submitted To
Department of Humanities & Social Science
BCA (Bachelor in Computer Application)

.....
External Examiner

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Google Drive

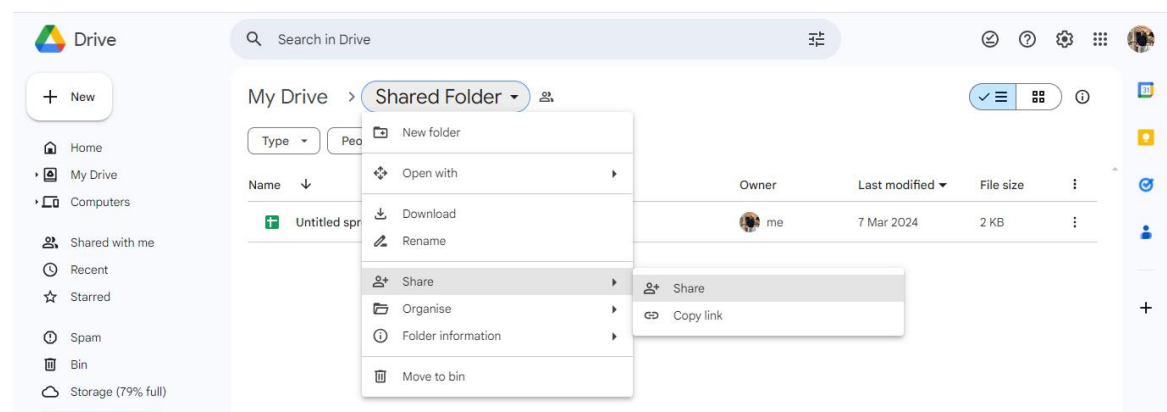
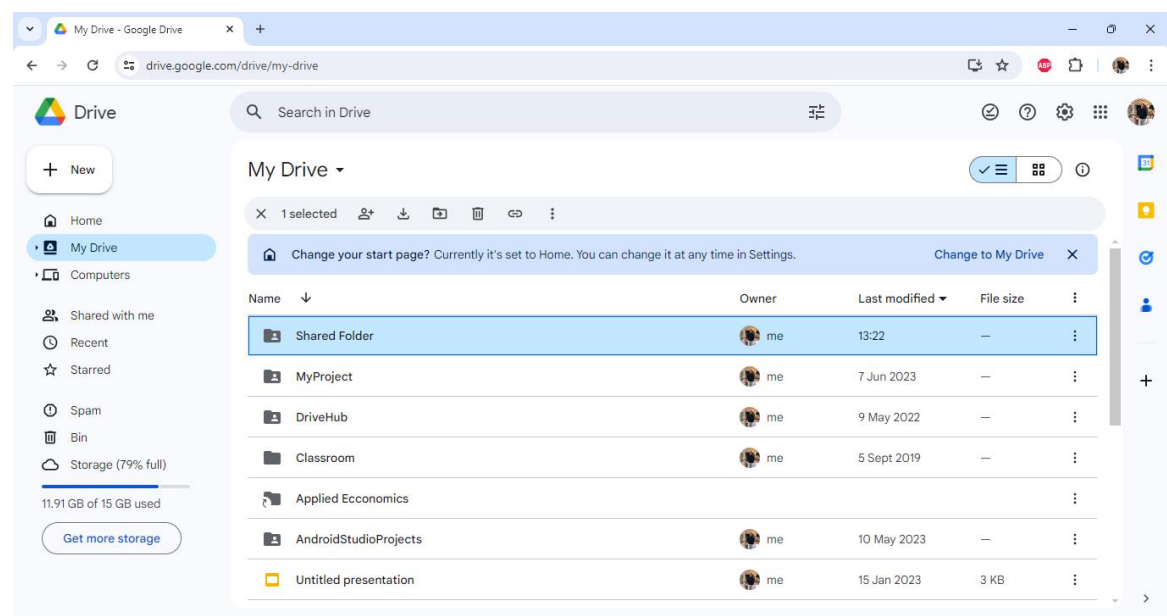
1. Create a shared folder in Google Drive and invite a teammate to collaborate. Share a document within the folder and demonstrate simultaneous editing by both users.

Theory:

Google Drive is a cloud-based storage service that enables users to store and access files online. The service syncs stored documents, photos and more across all the user's devices, including mobile devices, tablets and PCs.

Google Drive integrates with the company's other services and systems including Google Docs, Gmail, Android, Chrome, YouTube, Google Analytics and Google+. Google Drive competes with Microsoft OneDrive, Apple iCloud, Box, Dropbox and SugarSync.

Screenshot:



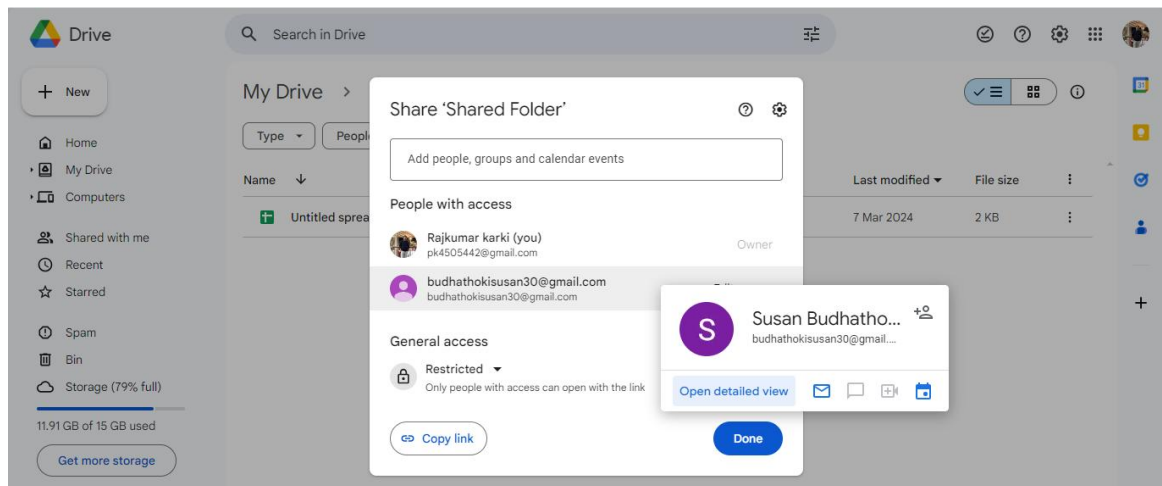


Figure: Google Drive

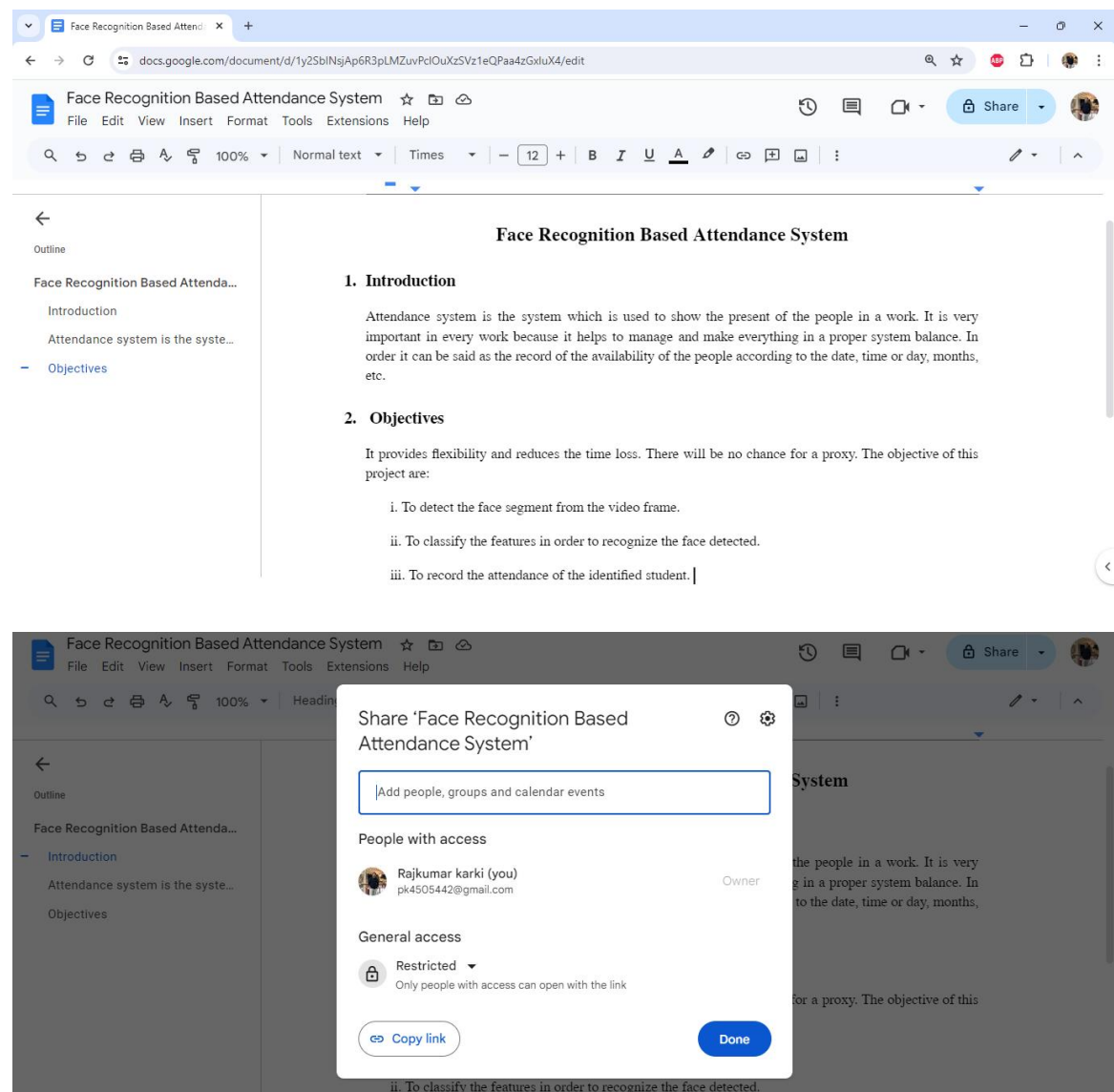
Google Docs

2. Create a new Google Docs document and format it with headings, bullet points, and numbered lists. Share the document with a colleague and collaborate on writing a short report.

Theory:

Google Docs is a free web-based word processor in which documents can be created, edited and stored as part of the Google Docs Editors suite of free web applications. Google Docs users can import, create, edit and update online documents in various fonts and file formats that can be accessed from any computer with an internet connection and web browser.

Screenshot:



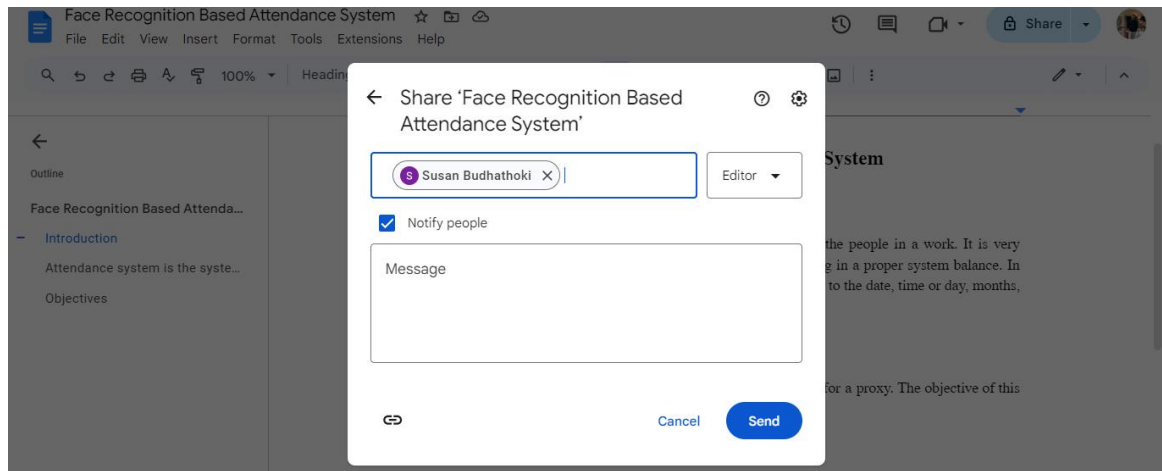


Figure: Google Docs

Google Sheets

3. Create a new Google Sheets spreadsheet and enter sample data. Use formulas to perform basic calculations such as sum, average, and count. Share the spreadsheet with another user and allow them to edit.

Theory:

Google Sheets is a free, web-based spreadsheet application that is provided by Google within the Google Drive service. The application is also available as a desktop application on ChromeOS, and as a mobile app on Android, Windows, iOS, and BlackBerry. It allows users to edit, organize, and analyze different types of information. It allows collaborations, and multiple users can edit and format files in real-time, and any changes made to the spreadsheet can be tracked by a revision history.

Screenshot:

S.N	Name	Cloud Computing	Cyber Law	SPM	Total
1	Puspita	45	40	48	133
2	Bima	35	39	47	121
3	Susan	35	40	48	123
4	Asmita	34	38	45	117
5	Rajkumar	35	39	45	117

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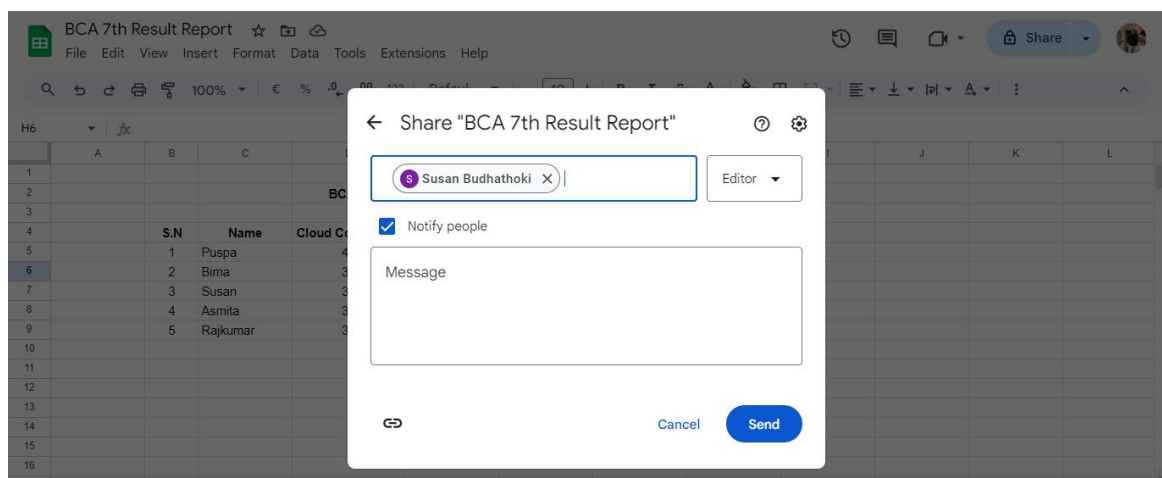
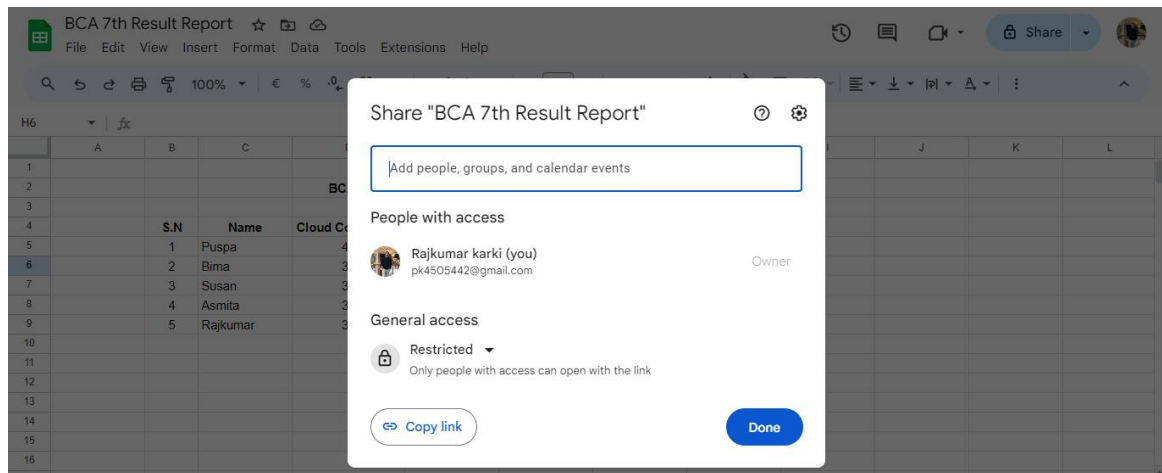


Figure: Google Sheets

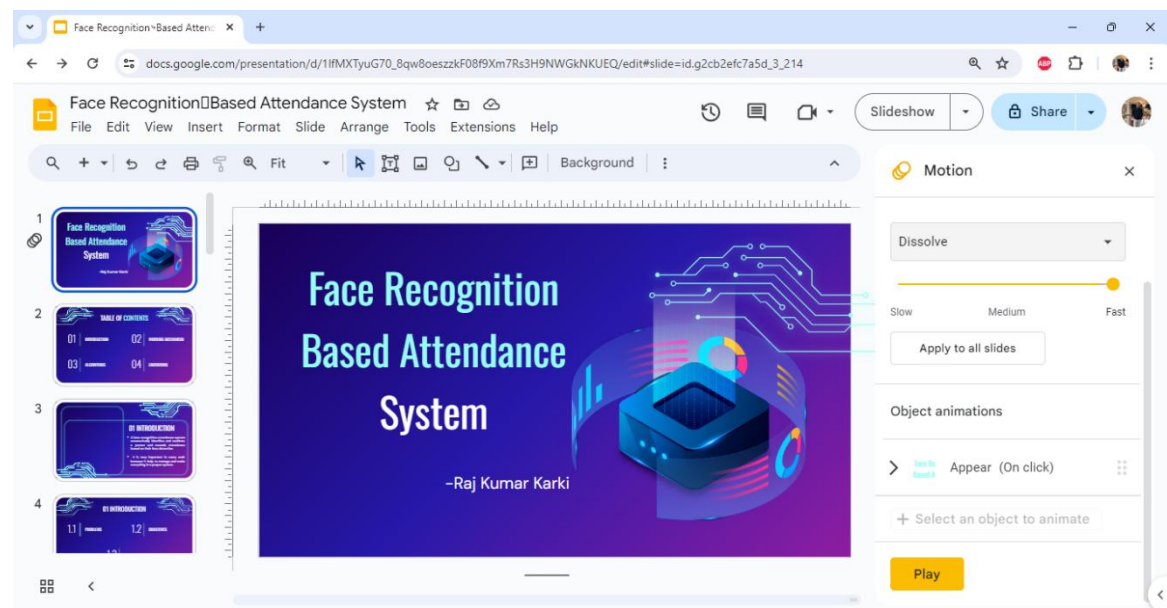
Google Slide

4. Design a presentation on Google Slides with at least five slides. Include images, text, and transitions. Share the presentation with a peer for feedback and make revisions based on their suggestions.

Theory:

A Google Slides presentation has the same purpose as a PowerPoint presentation which serve as visual support in an oral presentation. However, Google Slides offers different advantages such as being able to have your presentation in the Google cloud and have access to it from anywhere and from any device, that several users can modify the same presentation at the same time or that all changes are automatically saved thanks to the auto-save feature.

Screenshot:



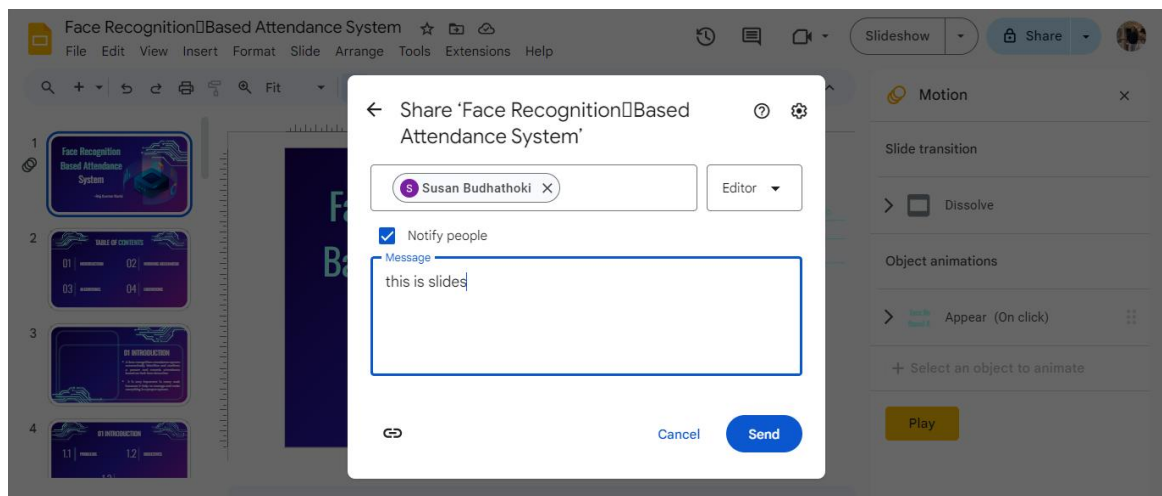
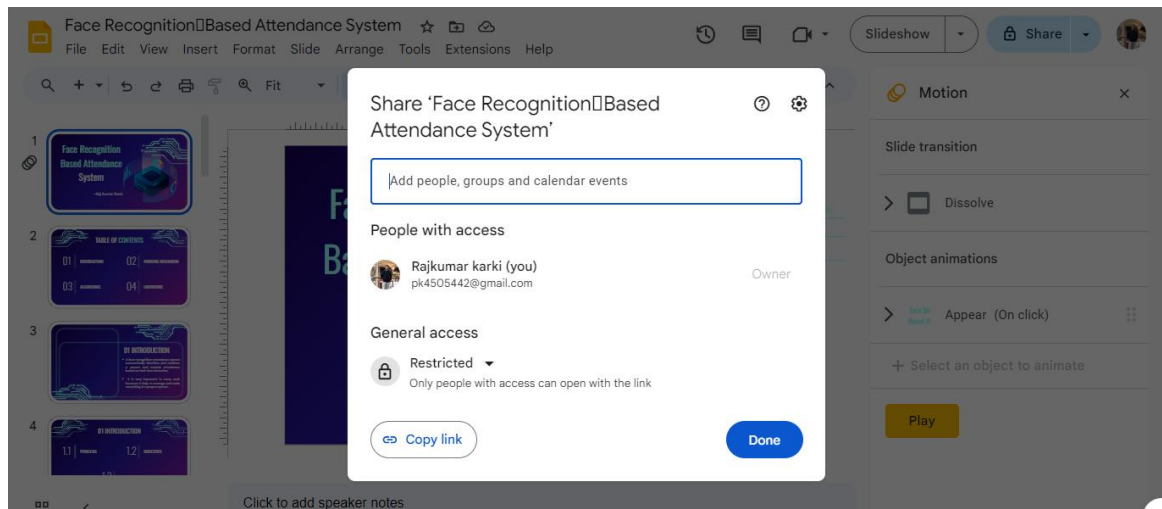


Figure: Google Slide

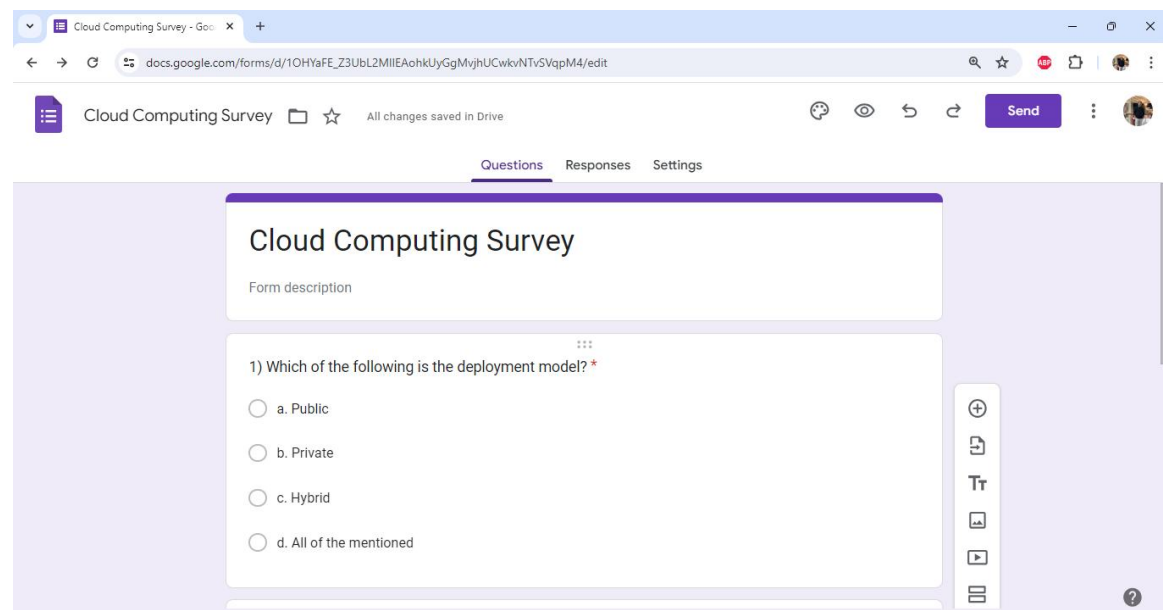
Google Forms

5. Create a survey using Google Forms with various question types such as multiple choice, short answer, and checkbox. Share the form link with classmates and collect responses.

Theory:

Google Forms is a free online tool from Google which allows users to create forms, surveys, and quizzes as well as to collaboratively edit and share the forms with other people. Educators can use Google forms to assess their students at the beginning of the class and gauge pre-existing knowledge. Furthermore, Google forms can be used to give feedback to and receive feedback from students and parents. Similarly, students can use Google forms to assess their own learning and set the learning goals as well as to collect data for their research projects.

Screenshot:



The screenshot shows a web browser window displaying a Google Form titled "Cloud Computing Survey". The browser's address bar shows the URL: docs.google.com/forms/d/1OHYaFE_Z3Ubl2MIEAohkUyGgMjghUCwkvNTv5VqpM4/edit. The form's header includes the title "Cloud Computing Survey" and a "Form description" field. The main content area contains a question: "1) Which of the following is the deployment model? *". Below the question are four radio button options: "a. Public", "b. Private", "c. Hybrid", and "d. All of the mentioned". The form is set against a light purple background. On the right side, there is a vertical toolbar with icons for adding questions, inserting images, and other form editing tools. At the top right of the form, there is a "Send" button and a user profile icon. The browser's top bar shows the tab "Cloud Computing Survey - Google Forms" and standard navigation buttons.

Cloud Computing Survey ☆ All changes saved in Drive Send

Questions Responses Settings

2) What is the full form of "SaaS" ? *

Short-answer text

3) In which semester you have study Cloud Computing ? ☰ ☑ Checkboxes

Suggestions: 2

☐ 5th Sem ✕

☐ 6th Sem ✕

☐ 7th Sem ✕

+ 📎 🔍 🖨 🔗 📺

Cloud Computing Survey - Google Docs +

docs.google.com/forms/d/1OHYaFE_Z3Ubl2MIIeAohkUyGgMghUCwkvNTv5VapM4/edit

Send form

Collect email addresses Do not collect

Send via ✉ 📧 🔗 📧 📧

Email

To

6 Susan Budhathoki (budhathokisusan30@) ✕ Enter names or email addresses

Subject

Cloud Computing Survey

Message

I've invited you to fill in a form:

☒ Include form in email

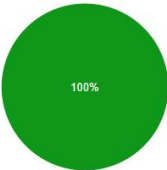
👤 Add editor Cancel Send

Cloud Computing Survey ☆ Send

Questions Responses 1 Settings

1) Which of the following is the deployment model? 📋 Copy

1 response



● a. Public

● b. Private

● c. Hybrid

● d. All of the mentioned

2) What is the full form of "SaaS" ?

1 response

Software as a Service

?

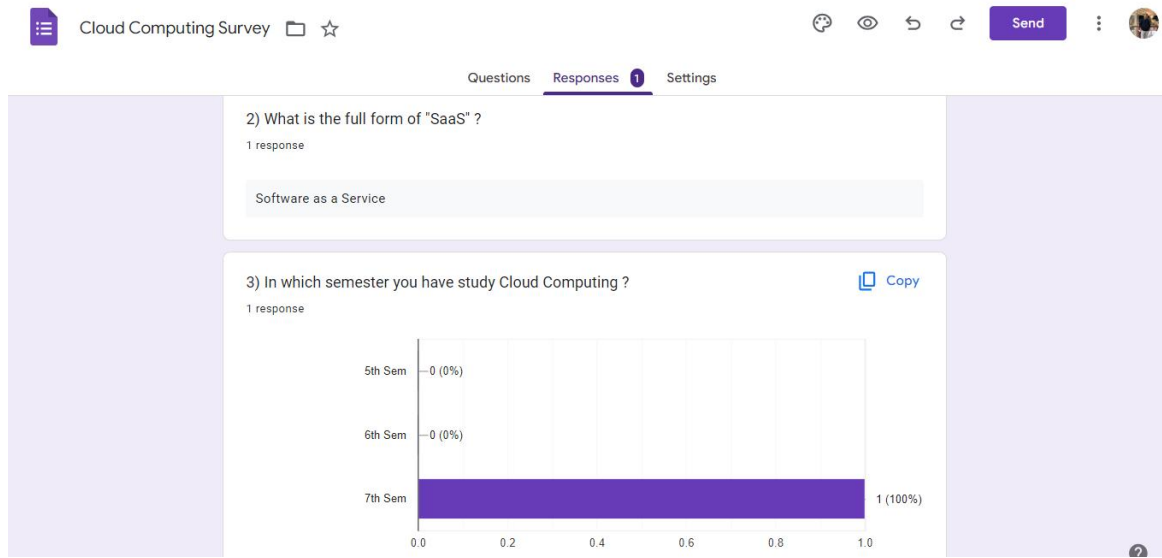


Figure: Google Forms

SandBox

6. Explore the learn Sandbox.

Theory:

Sandboxing is a security practice in which you use an isolated environment, or a “sandbox,” for testing. Within the sandbox you run code, analyze the code in a safe, isolated environment without affecting the application, system or platform.

Screenshot:

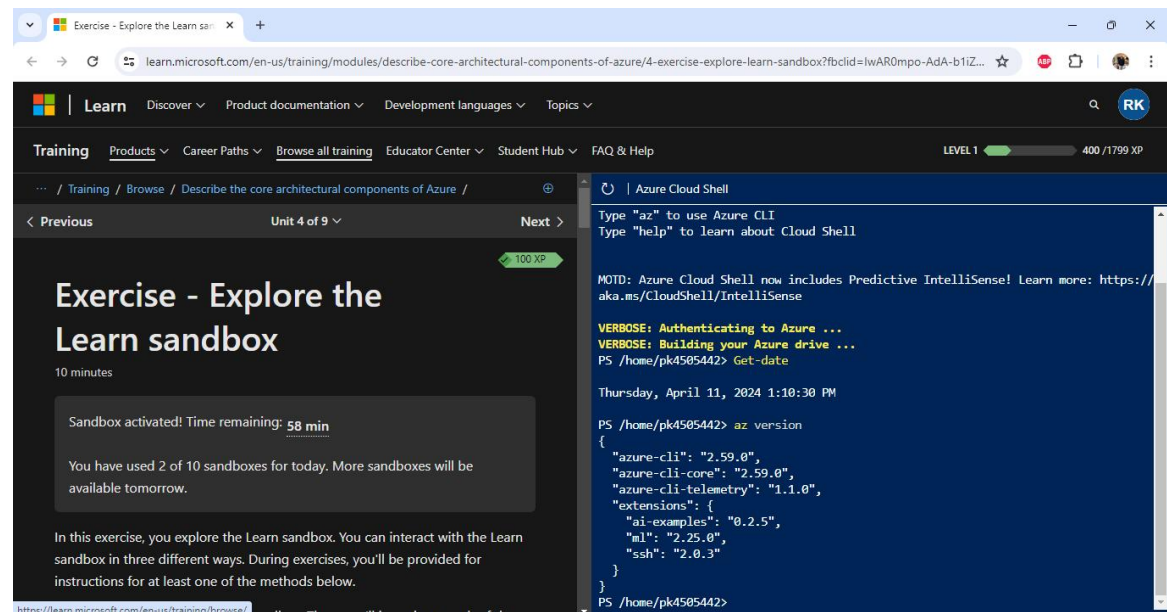


Figure: Sandbox

Azure

7. Create an Azure resource.

Theory:

Azure Resource Manager is the deployment and management service for Azure. It provides a management layer that enables you to create, update, and delete resources in your Azure account. You use management features, like access control, locks, and tags, to secure and organize your resources after deployment.

Screenshot:

The first screenshot shows the Microsoft Azure portal home page. The 'Resource groups' section is highlighted, showing a list of recent resources and free training from Microsoft. The URL in the address bar is <https://portal.azure.com/#blade/HubsExtension/BrowseResourceGroupBlade/resourceType/Microsoft.Resources%2Fsubscriptions%2FresourceGroups>.

The second screenshot shows the 'Resource groups' page. The page title is 'Resource groups' and the subtitle is 'Microsoft Learn Sandbox'. The page includes a search bar, a filter bar, and a table of resource groups. The table has columns for Name, Subscription, and Location. The first row shows a resource group named 'learn-268d29ac-200e-4881-a95d-8a7c62...' with a subscription of 'Concierge Subscription' and a location of 'West US'.

Name	Subscription	Location
learn-268d29ac-200e-4881-a95d-8a7c62...	Concierge Subscription	West US

The third screenshot shows the 'Resource groups' page with the same table of resource groups. The table has columns for Name, Subscription, and Location. The first row shows a resource group named 'learn-268d29ac-200e-4881-a95d-8a7c62...' with a subscription of 'Concierge Subscription' and a location of 'West US'.

Name	Subscription	Location
learn-268d29ac-200e-4881-a95d-8a7c62...	Concierge Subscription	West US

Microsoft Azure

Search resources, services, and docs (G+)

Home > Resource groups >

learn-268d29ac-200e-4881-a95d-8a7c629d8310

Resource group

Search

Create Manage view Delete resource group Refresh Export to CSV Open query Assign tags Move Delete

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Deployments

Security

Deployment stacks

Policies

Properties

Locks

Monitoring

Essentials

Resources Recommendations

Filter for any field...

Type equals all Location equals all Add filter

Showing 1 to 7 of 7 records. Show hidden types No grouping List view

Name	Type	Location
cloudshell1912252800	Storage account	Southeast Asia
raj-azureuser	Virtual machine	West US
raj-azureuser-ip	Public IP address	West US
raj-azureuser-nsg	Network security group	West US
raj-azureuser-vnet	Virtual network	West US
raj-azureuser463	Network interface	West US
raj-azureuser-disk1 27f470d12ef75d63888f796f3d61158a9	Disk	West US

< Previous Page 1 of 1 Next >

Give feedback

Figure: Azure resource

GitHub

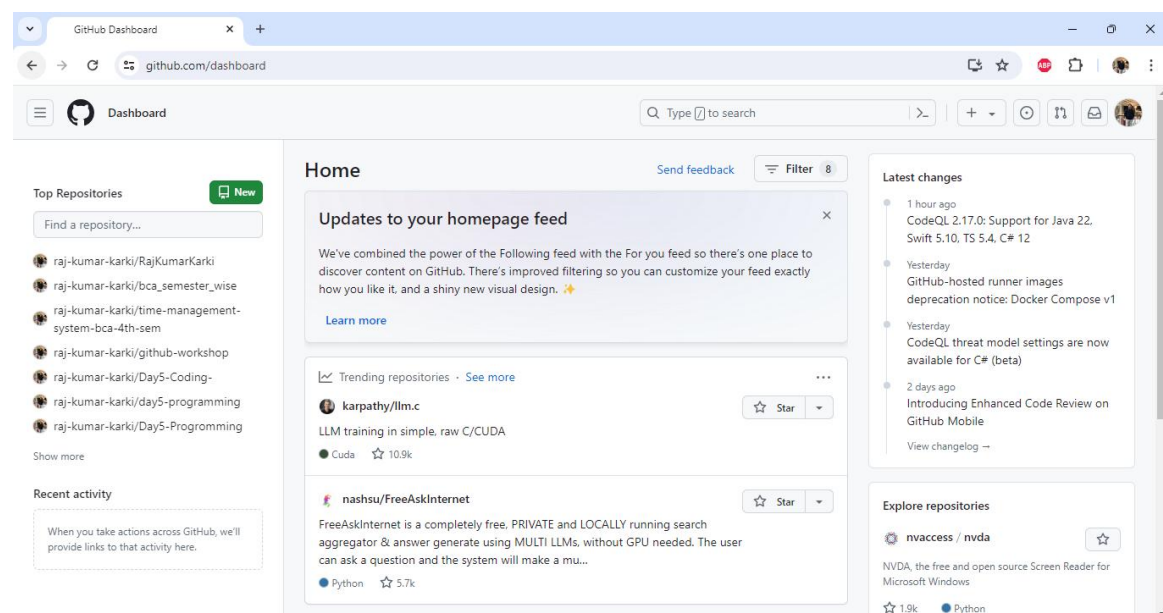
8. Create a new repository on GitHub with a descriptive name related to a school project or hobby. Write a brief description explaining the purpose of the repository. Add a simple README file with instructions or information about the project.

Theory:

GitHub is a web-based interface that uses Git, the open source version control software that lets multiple people make separate changes to web pages at the same time. As Carpenter notes, because it allows for real-time collaboration, GitHub encourages teams to work together to build and edit their site content.

GitHub allows multiple developers to work on a single project at the same time, reduces the risk of duplicative or conflicting work, and can help decrease production time.

Screenshot:



New repository

github.com/new

Search

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?
[Import a repository.](#)

Required fields are marked with an asterisk (*).

Owner *

Repository name *

raj-kumar-karki

FRBAS

FRBAS is available.

Great repository names are short and memorable. Need inspiration? How about [cuddly-octo-carnival](#) ?

Description (optional)

Face Recognition Based Attendance System

☒ Public

Anyone on the internet can see this repository. You choose who can commit.

☐ Private

You choose who can see and commit to this repository.

Initialize this repository with:

☒ Add a README file

This is where you can write a long description for your project. [Learn more about READMEs.](#)

raj-kumar-karki/FRBAS: Face Re

github.com/raj-kumar-karki/FRBAS

Search

Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

Settings

FRBAS

Public

Pin

Unwatch 1

Fork 0

Star 0

main

1 Branch

0 Tags

Go to file

Add file

Code

About

Face Recognition Based Attendance System

Readme

Activity

0 stars

1 watching

0 forks

Releases

No releases published

Create a new release

Packages

No packages published

raj-kumar-karki Update README.md 5b809ae · 1 minute ago 3 Commits

Face Recognition based Attendance System - F...

Add files via upload

3 minutes ago

Face Recognition based Attendance System - F...

Add files via upload

3 minutes ago

Face Recognition based Attendance System - P...

Add files via upload

3 minutes ago

Face Recognition based Attendance System - ...

Add files via upload

3 minutes ago

Project-II-Details-for-BCA-6th-Semester.pdf

Add files via upload

3 minutes ago

README.md

Update README.md

1 minute ago

attendance.csv

Add files via upload

3 minutes ago

attendance.py

Add files via upload

3 minutes ago

Figure: GitHub

Virtual Machine

9. Create a virtual machine in Azure.

Theory:

A virtual machine is like a physical computer but it is actually a digital version of it. Actually, it is not so much different from physical computers because they have also memory, CPU, as well as they have disks to store our data or various files and one more interesting thing is that they can also connect to the internet. So we can say that a VM is actually the software-defined computer that exists only as a code but is present on physical servers.

Screenshot:

The screenshot displays the Microsoft Azure portal interface. At the top, the navigation bar shows 'Home - Microsoft Azure' and the URL 'portal.azure.com/#home'. The main content area features a 'Virtual machines' tile, which is highlighted, showing a 'Create' button and a 'View' button. Below this, a 'Description' section explains that a virtual machine can run Linux or Windows, and a 'Free training from Microsoft' section lists several courses. The 'Create a virtual machine' wizard is open, showing the following details:

- Subscription:** Concierge Subscription
- Resource group:** learn-268d29ac-200e-4881-a95d-8a7c629d8310
- Instance details:**
 - Virtual machine name:** raj-azureuser
 - Region:** (US) West US
 - Availability options:** No infrastructure redundancy required
 - Security type:** Trusted launch virtual machines
 - Image:** Ubuntu Server 20.04 LTS - x64 Gen2
 - VM architecture:** x64

The wizard includes navigation buttons: '< Previous', 'Next: Disks >', and 'Review + create'. A 'Give feedback' link is also visible at the bottom right.

Microsoft Azure

Search resources, services, and docs (G+)

pk4505442@gmail.com
MICROSOFT LEARN SANDBOX

Home > Virtual machines >

Create a virtual machine

Administrator account

Authentication type ☐ SSH public key ☒ Password

Username *

Password *

Confirm password *

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports * ☒ None ☐ Allow selected ports

< Previous

Next: Disks >

Review + create

Give feedback

Microsoft Azure

Search resources, services, and docs (G+)

pk4505442@gmail.com
MICROSOFT LEARN SANDBOX

Home > Virtual machines >

Create a virtual machine

Validation passed

Name

Preferred e-mail address

Preferred phone number

Basics

Subscription Concierge Subscription

Resource group learn-268d29ac-200e-4881-a95d-8a7c629d8310

Virtual machine name raj-azureuser

Region West US

Availability options No infrastructure redundancy required

Security type Trusted launch virtual machines

Enable secure boot Yes

Microsoft Azure

Search resources, services, and docs (G+)

pk4505442@gmail.com
MICROSOFT LEARN SANDBOX

Home >

raj-azureuser

Virtual machine

Search

Connect Start Restart Stop Hibernate (preview) Capture Delete Refresh Open in mobile Feedback CLI / PS

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Connect

Connect

Bastion

Networking

Network settings

Load balancing

Application security groups

Network manager

Settings

Essentials

Resource group (move) : learn-268d29ac-200e-4881-a95d-8a7c629d8310

Status : Running

Location : West US

Subscription (move) : Concierge Subscription

Subscription ID : 651da11b-7757-4742-ac91-148e47c2869b

Operating system : Linux (ubuntu 20.04)

Size : Standard D2s v3 (2 vcpus, 8 GiB memory)

Public IP address : 52.160.124.40

Virtual network/subnet : raj-azureuser-vnet/default

DNS name : Not configured

Health state : -

Tags (edit) : Add tags

JSON View

Properties

Monitoring

Capabilities (7)

Recommendations

Tutorials

Virtual machine

Computer name : raj-azureuser

Operating system : Linux (ubuntu 20.04)

Image publisher : canonical

Image offer : 0001-com-ubuntu-server-focal

Networking

Public IP address : 52.160.124.40 (Network interface : raj-azureuser463)

Public IP address (IPv6) : -

Private IP address : 10.0.0.4

Microsoft Azure

Search resources, services, and docs (G+)

pk4505442@gmail.com

Home >

raj-azureuser

Virtual machine

Search

Connect Start Restart Stop Hibernate (preview) Capture Delete Refresh Open in mobile Feedback CLI / PS

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Connect

- Connect
- Bastion

Networking

- Network settings
- Load balancing
- Application security groups
- Network manager

Virtual machine

Computer name	raj-azureuser
Operating system	Linux (ubuntu 20.04)
Image publisher	canonical
Image offer	0001-com-ubuntu-server-focal
Image plan	20_04-lts-gen2
VM generation	V2
VM architecture	x64
Agent status	Ready
Agent version	2.10.0.8
Hibernation	Disabled
Host group	-
Host	-
Proximity placement group	-
Colocation status	N/A
Capacity reservation	-

Networking

Public IP address	52.160.124.40 (Network interface raj-azureuser463)
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	raj-azureuser-vnet/default
DNS name	Configure

Size

Size	Standard D2s v3
vCPUs	2
RAM	8 GiB

Disk

OS disk	raj-azureuser_disk1_27f470d2ef254638887796034e1158e9
Encryption at host	Disabled

Figure: Azure Virtual Machine

Network Access

10. Create network access in Azure.

Theory:

Network access is a crucial layer of cyber security which is an important pillar in securing resources. This is true even when other security controls to protect resources are in use, such as user name/password combination, connection strings or security tokens. Malicious actors find network restricted access difficult to get around.

Screenshot:

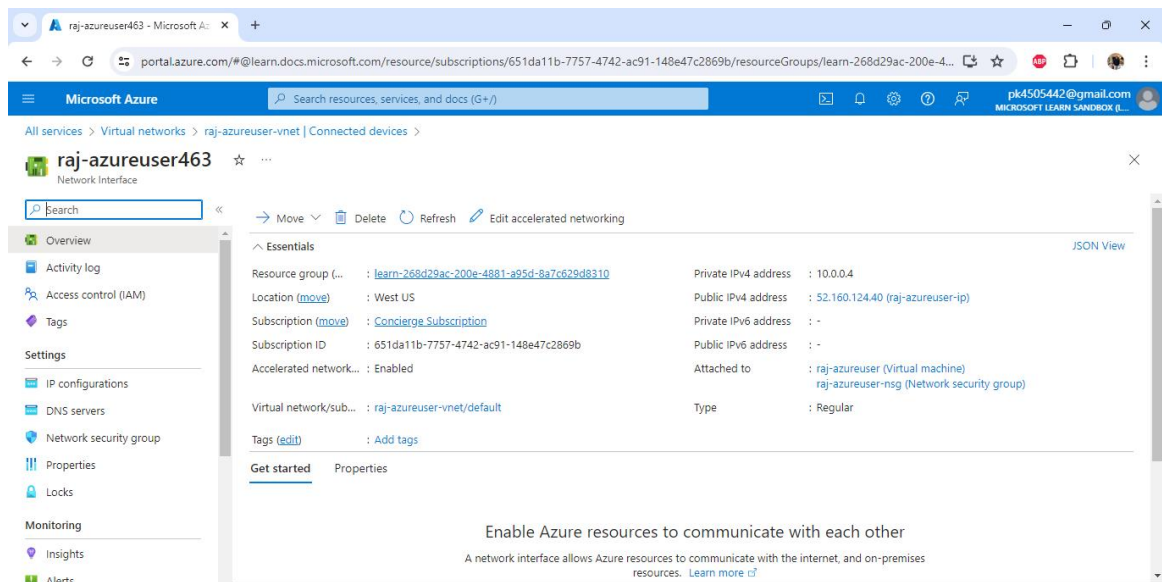


Figure: Network Access in Azure