Ex No: 1 Date:	PROGRAM ON SaaS TO CREATE WORD DOCUMENT

Aim:

To implement program on SaaS to Create an word document of your class time table and store locally and on cloud with doc and PDF format

Procedure:

1. With Google Docs, you can create and edit text documents right in your web browser—no special software is required. Even better, multiple people can work at the same time, you can see people's changes as they make them, and every change is saved automatically.
2. To start, you need a document to work with. In this section

   You learn how to:

   a. Create a new document
   b. Import and convert old documents to Docs

Create a new document

(i) You can create a new document right in Docs or in Google Drive.In Docs, click

Create new document.

(ii) In Drive, click New > Google Docs > Blank document or From a template.

Import and convert old documents to Docs

(iii) If you have existing text documents, such as Microsoft Word or Adobe PDF files, you can import and convert them to Docs.

- Go to Drive.
- Click New > File Upload and choose a text document from your computer. Supported files include .doc, .docx, .dot, .html, plain text (.txt), .odt,and .rtf.
- Right-click the file you want to convert and select Open with > Google Docs. Converting your document from another program creates a copy of your original file in Docs format. You can then edit it in your browser like any other document.

<u>Create Class timetable</u>

Share documents

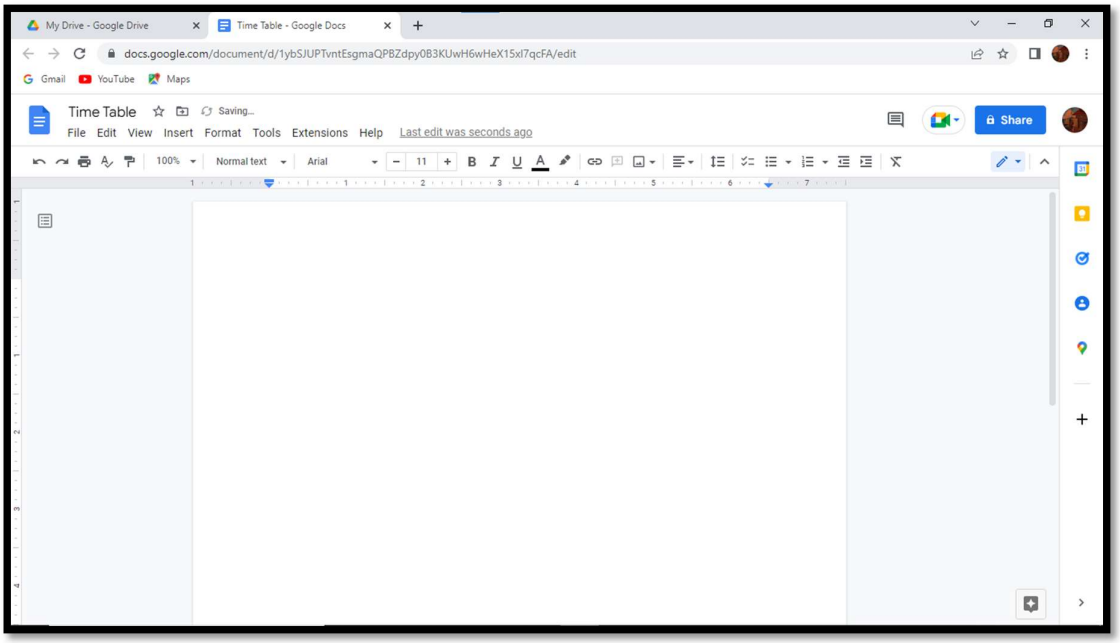
1. Open the file you want to share.
2. Click share.
3. Enter the email addresses or Google Groups you want to share with.

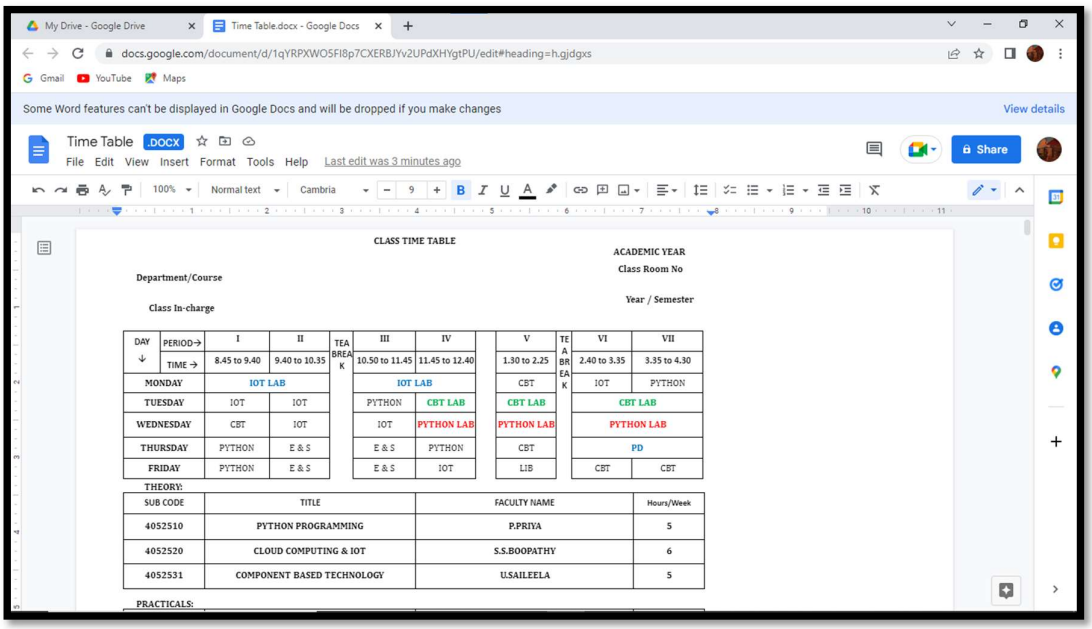
Note: If you can't add people outside your company, see your G Suite administrator.

4. Choose what kind of access you want to grant people:
   - **Can edit**—Collaborators can add and edit content as well as add comments.
   - **Can comment**—Collaborators can add comments, but not edit content.
   - **Can view**—People can view the file, but not edit or add comments. Click Send.

Everyone you shared the document with receives an email with a link to the document.

OUTPUT:





DAY ↓	PERIOD→	I	II	TEA BREAK	III	IV		V	TEA BREAK	VI	VII
	TIME →	8.45 to 9.40	9.40 to 10.35		10.50 to 11.45	11.45 to 12.40		1.30 to 2.25		2.40 to 3.35	3.35 to 4.30
MONDAY		IOT LAB			IOT LAB			CBT		IOT	PYTHON
TUESDAY		IOT	IOT		PYTHON	CBT LAB		CBT LAB		CBT LAB	
WEDNESDAY		CBT	IOT		IOT	PYTHON LAB		PYTHON LAB		PYTHON LAB	
THURSDAY		PYTHON	E & S		E & S	PYTHON		CBT		PD	
FRIDAY		PYTHON	E & S		E & S	IOT		LIB		CBT	CBT

SUB CODE	TITLE	FACULTY NAME	Hours/Week
4052510	PYTHON PROGRAMMING	P.PRIYA	5
4052520	CLOUD COMPUTING & IOT	S.S.BOOPATHY	6
4052531	COMPONENT BASED TECHNOLOGY	U.SAILEELA	5

RESULT:

Thus the word document is created, stored and accessed using cloud

Ex No: 2 Date:	PROGRAM ON SAAS TO CREATE SPREADSHEET

Aim:

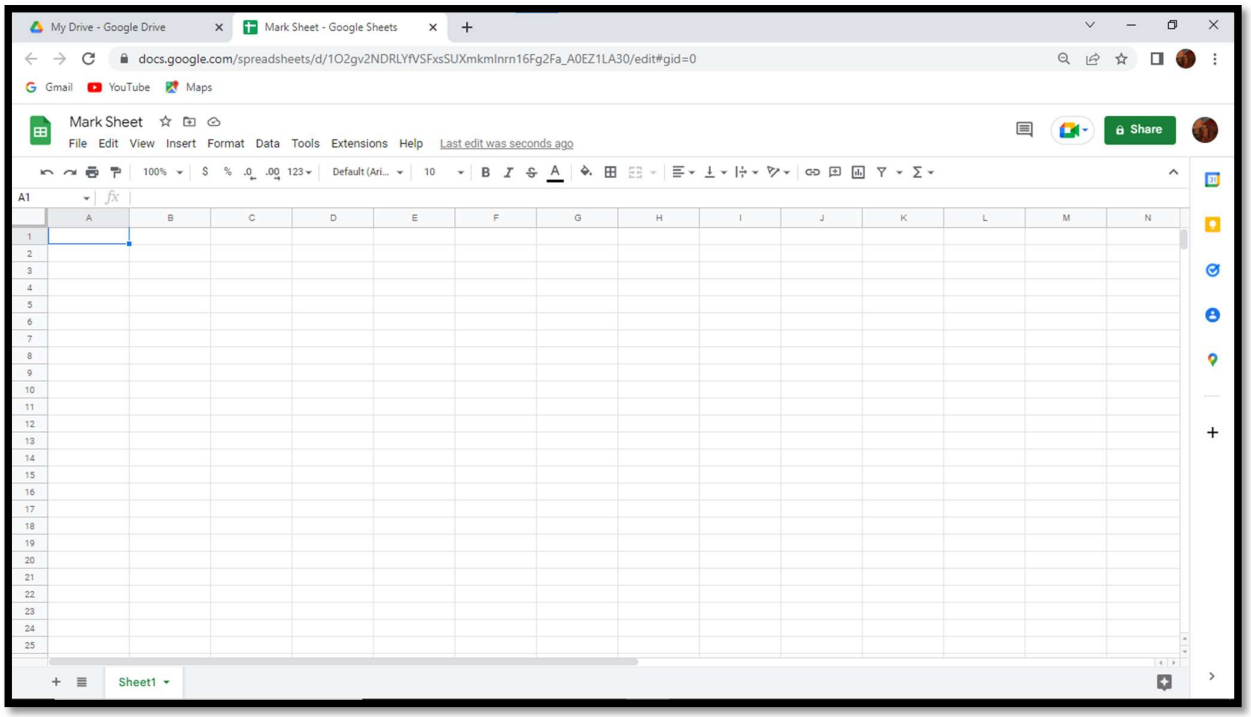
To implement program on SaaS to Create a spread sheet to generate a mark sheet for student progress report

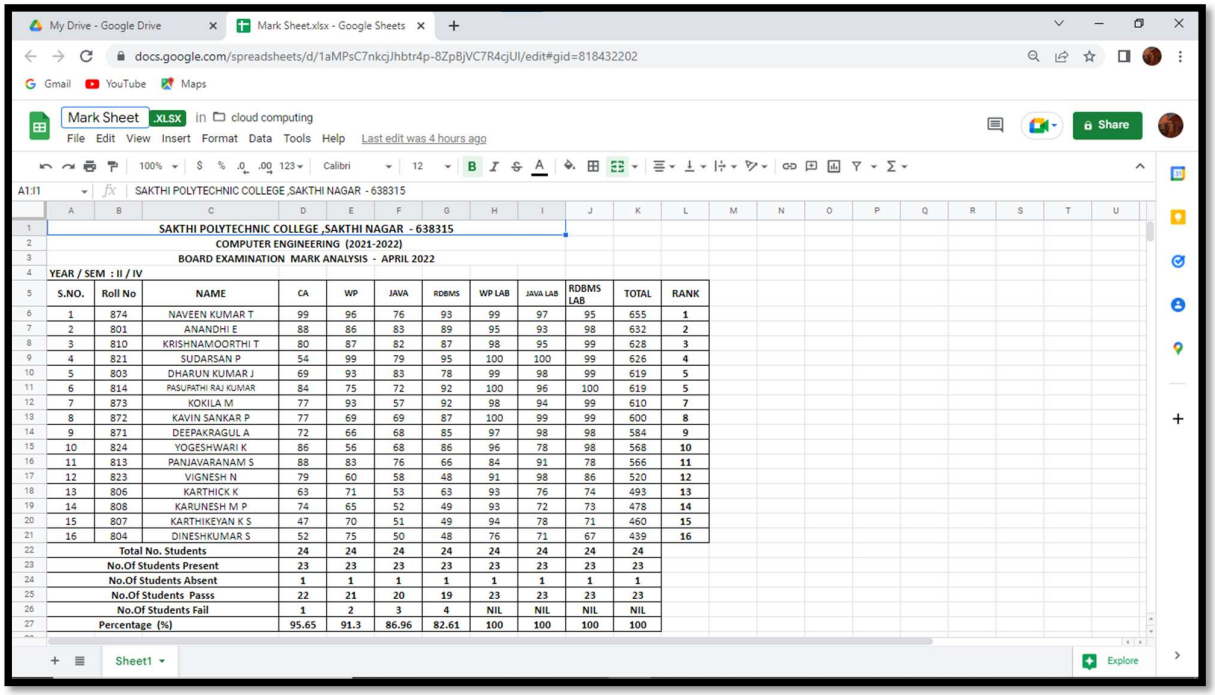
Procedure:

If you're accustomed to creating your spread sheets using an office suite or software like Microsoft Excel, you won't have any issue in creating a Google Spread sheet. Google Spread sheet works the same as Excel, and you can do most of the important spread sheet tasks with it. You can use Google Spread sheet directly from your web browser or from its mobile app

1. Sign into Google Sheets. Visit docs.google.com/spreadsheets and sign in with your Google or Gmail account. Your Gmail account gives you free access to Google Sheets.
2. View your existing sheets. Upon logging in, you will be brought to the main directory. If you already have existing spreadsheets, you can see and access them from here.
3. Create a new spreadsheet. Click the large red circle with a plus sign on the lower right corner. A new window or tab will be opened with the web-based spreadsheet.
4. Name the spreadsheet. "Untitled spreadsheet" appears on the top left corner. This is the current name of the spreadsheet. Click on it, and a small window will appear. Type in the name of the spreadsheet here, and click the "OK" button. You will see the name immediately change.

OUTPUT:





SAKTHI POLYTECHNIC COLLEGE ,SAKTHI NAGAR - 638315

COMPUTER ENGINEERING (2021-2022)

BOARD EXAMINATION MARK ANALYSIS - APRIL 2022

YEAR / SEM : II / IV

S.NO.	Roll No	NAME	CA	WP	JAVA	RDBMS	WP LAB	JAVA LAB	RDBMS LAB	TOTAL	RANK
1	874	NAVEEN KUMAR T	99	96	76	93	99	97	95	655	1
2	801	ANANDHI E	88	86	83	89	95	93	98	632	2
3	810	KRISHNAMOORTHI T	80	87	82	87	98	95	99	628	3
4	821	SUDARSAN P	54	99	79	95	100	100	99	626	4
5	803	DHARUN KUMAR J	69	93	83	78	99	98	99	619	5
6	814	PASUPATHI RAJ KUMAR	84	75	72	92	100	96	100	619	5
7	873	KOKILA M	77	93	57	92	98	94	99	610	7
8	872	KAVIN SANKAR P	77	69	69	87	100	99	99	600	8
9	871	DEEPAKRAGUL A	72	66	68	85	97	98	98	584	9
10	824	YOGESHWARI K	86	56	68	86	96	78	98	568	10
11	813	PANJAVARANAM S	88	83	76	66	84	91	78	566	11
12	823	VIGNESH N	79	60	58	48	91	98	86	520	12
13	806	KARTHICK K	63	71	53	63	93	76	74	493	13
14	808	KARUNESH M P	74	65	52	49	93	72	73	478	14
15	807	KARTHIKEYAN K S	47	70	51	49	94	78	71	460	15
16	804	DINESHKUMAR S	52	75	50	48	76	71	67	439	16
Total No. Students			24	24	24	24	24	24	24	24	
No.Of Students Present			23	23	23	23	23	23	23	23	
No.Of Students Absent			1	1	1	1	1	1	1	1	
No.Of Students Passs			22	21	20	19	23	23	23	23	
No.Of Students Fail			1	2	3	4	NIL	NIL	NIL	NIL	
Percentage (%)			95.65	91.3	86.96	82.61	100	100	100	100	

RESULT:

Thus the Program on saas is implemented by creating spreadsheet and details are entered successfully.

Ex No:3 Date:	BLOGSPOT CREATION

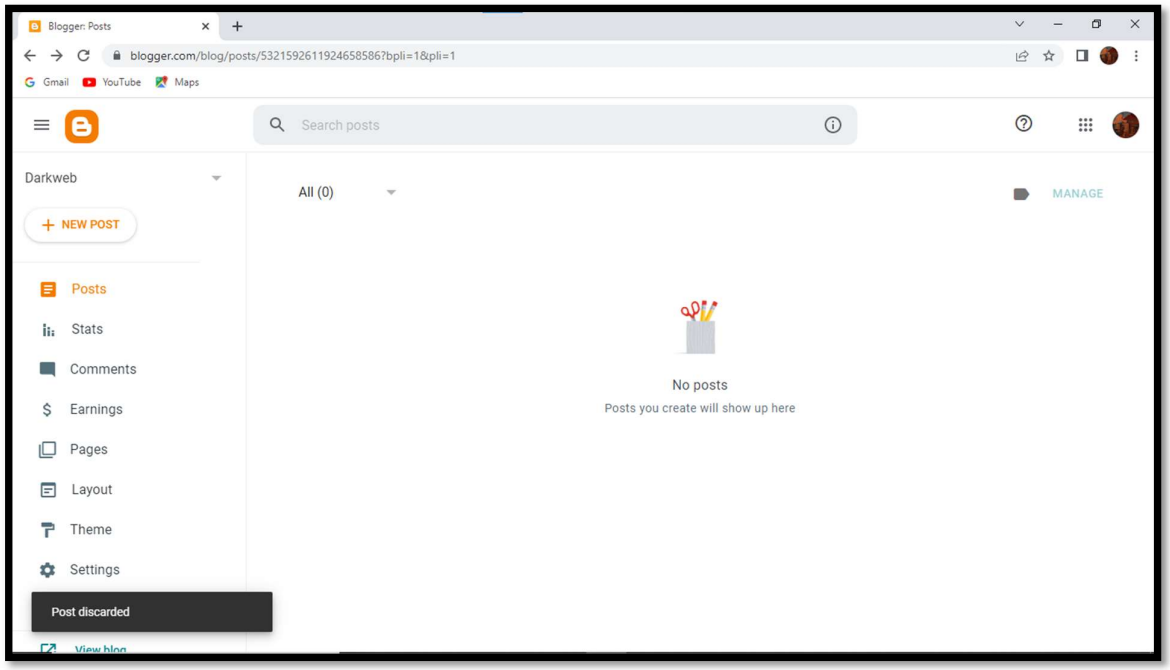
Aim:
To implement web services by create your BlogSpot and Collaborating via Wikis.

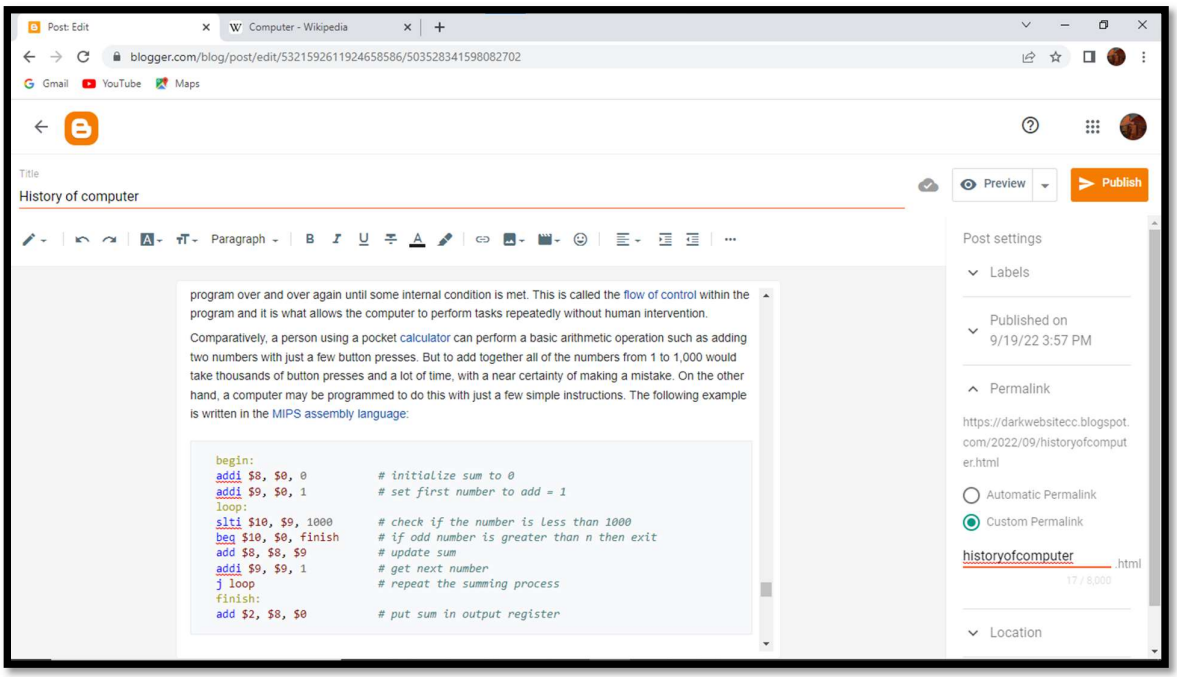
PROCEDURE:

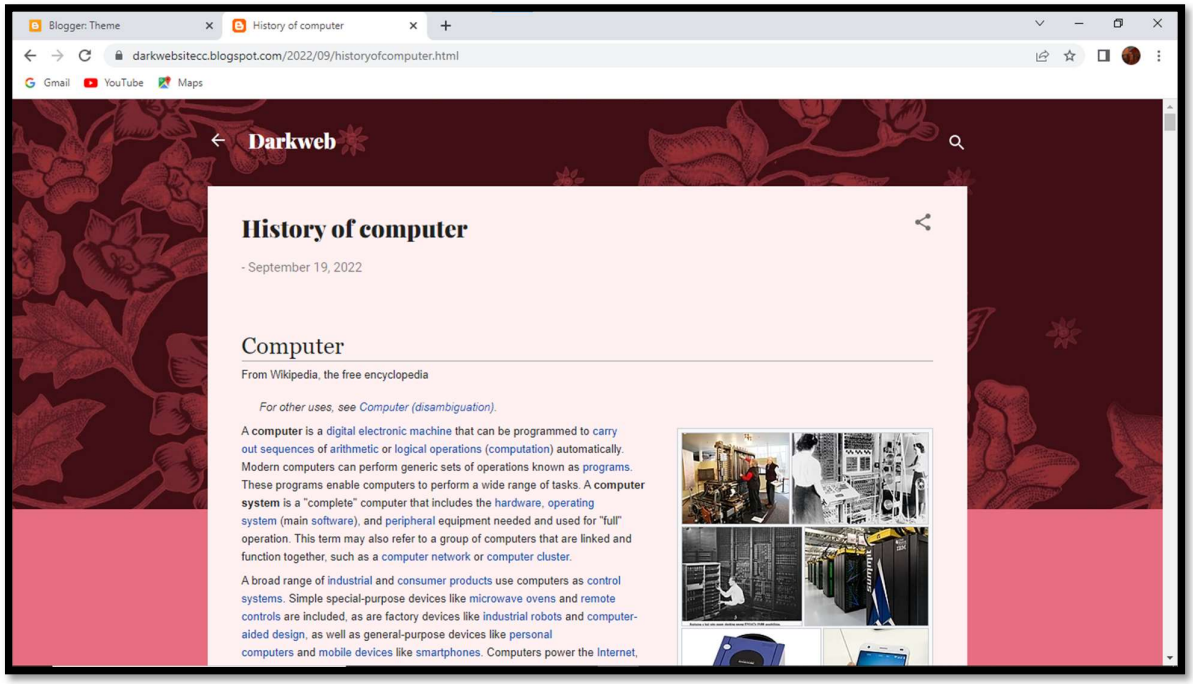
CREATE A BLOG:

1. Search in Google as "blogger", there are many websites to create blogs. Let us take www.blogger.com.
2. Click on create blog. Sign in to your Google account
3. Choose a name for your blog and click on next.
4. Create the blog name click on next.
5. Type the display name and click on Finish
6. Click on create post and update your post in the displayed file and publish.
7. You can apply theme and create many post and labels in your blog and customize it.
8. Finally click on view blog from the menu and you can view the blog which you have created
9. In the blog site ,you can share on your own blog in any social medias and wikkis

OUTPUT:







RESULT:

Thus the log is created and collaborated successfully

Ex No:4 Date:	GOOGLE APP ENGINE

Aim:

To implement on PaaS to Install Google App Engine, create a program to validate user; create a database login(username, password)in mysql and deploy to cloud

Procedure:

- Create a Compute Engine instance
- Install MySQL
- Connect to MySQL

Create a Compute Engine instance

Create a new project in the Google Cloud console. You can use an existingproject, but creating a new project makes cleanup easier.

You can complete all of the steps in this document using the Google Cloud console, butif you prefer to use the gcloud CLI, follow these steps to enable the Compute Engine API and install the Google Cloud CLI.

- Use the Google Cloud console to enable the Compute Engine API.
- Install the gcloud CLI
- Configure your workspace to make commands less verbose. Substitute your project's values for PROJECT_ID and ZONE in the following commands. For thefull list of zones, see Available regions & zones.

  gcloud config set project PROJECT_ID

  gcloud config set compute/zone ZONE

Create a Compute Engine instance for MySQL and establish an SSH connection to the newly created instance. The default operating system is Debian version 10. If you prefer to use a different operating system for this tutorial, you can choose from the options described on the public images page in the Compute Engine documentation.

To create a Compute Engine instance in the Google Cloud console:

1. Open the Google Cloud console.
2. Select your newly created project and click **Continue**.
3. Click **Create instance** (**New instance** if you have existing instances). Name the instance **mysql-test**.
4. To specify an operating system other than the default value, in the **Boot disk** section, click **Change** to configure the properties for the boot disk. Inthe **Public images** tab, select an operating system and then click **Save**.
5. Click **Create**.

To establish an SSH connection:

1. On the **VM instances** page, find your new VM instance in the list.
2. In the **Connect** column, click **SSH**. The SSH terminal opens in a browserwindow.

Install MySQL

The following steps describe how to install MySQL on your Compute Engine instance.

Versions 10 and later of Debian contain MariaDB instead of MySQL as part of its package management system. MariaDB maintains compatilibity with the MySQL protocol, but has an independently evolving feature set. For more details, see MariaDBvs. MySQL.

To install MySQL, download the release package and manually install using the dpkg commmand.

1. Install the wget dependency.

```
sudo apt-get install -y wget
```

2. Download the MySQL Community Server release package.

```
export DEB_FILE=mysql-apt-config_0.8.20-1_all.debcd /tmp
curl -L --output ${DEB_FILE} \ https://dev.mysql.com/get/${DEB_FILE}
```

3. Verify the integrity of the release package file. cat >

```
${DEB_FILE}.md5 << EOL
799bb0aefb93d30564fa47fc5d089aeb ${DEB_FILE}EOL
md5sum --check ${DEB_FILE}.md5
```

4. The authenticity and integrity of the file are verified if you see the following output.

```
mysql-apt-config_0.8.20-1_all.deb: OK
```

5. After you have verified the file, add the MySQL package to the local package repository.

```
sudo dpkg -i ${DEB_FILE}
```

6. With the top MySQL Server & Cluster menu option selected, press Return andthen use the arrow keys to choose a server version.

7. This guide expects you to choose either MySQL 8.0 or 5.7. Press Return on your keyboard after you have selected the version.

8. When you are satisfied with the options selected in the configuration menu, use the arrow keys to select Ok in the menu and press Return on your keyboard.

9. Update the package cache.

```
sudo apt-get update
```

10. Install MySQL. The installation process starts the MySQL service for you.

```
sudo apt-get -y install mysql-community-server
```

11. You are prompted to provide some details for the installation such as the root password.

Connect to MySQL

1. Connect to MySQL using the MySQL client.

sudo mysql -u root -p

When you connect to MySQL, the prompt changes to mysql>

You can then run MySQL commands. For example, the following command shows the threads running, including the current connection.

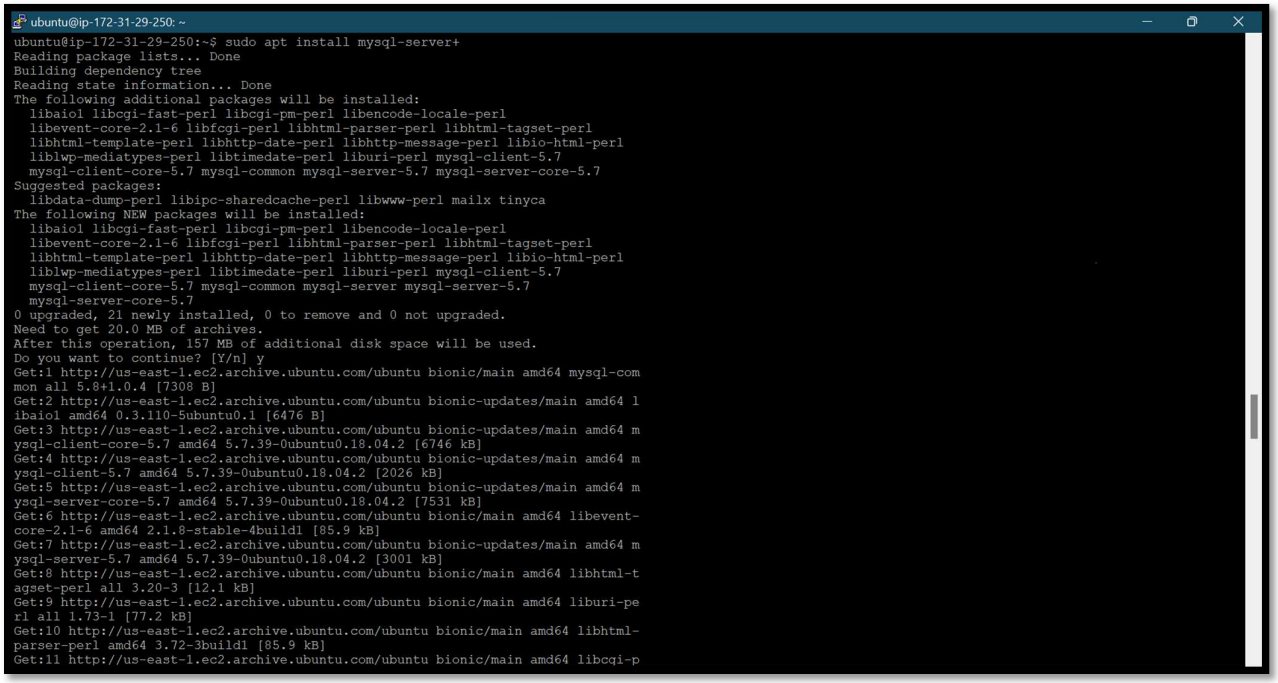
Mysql> SHOW processlist;

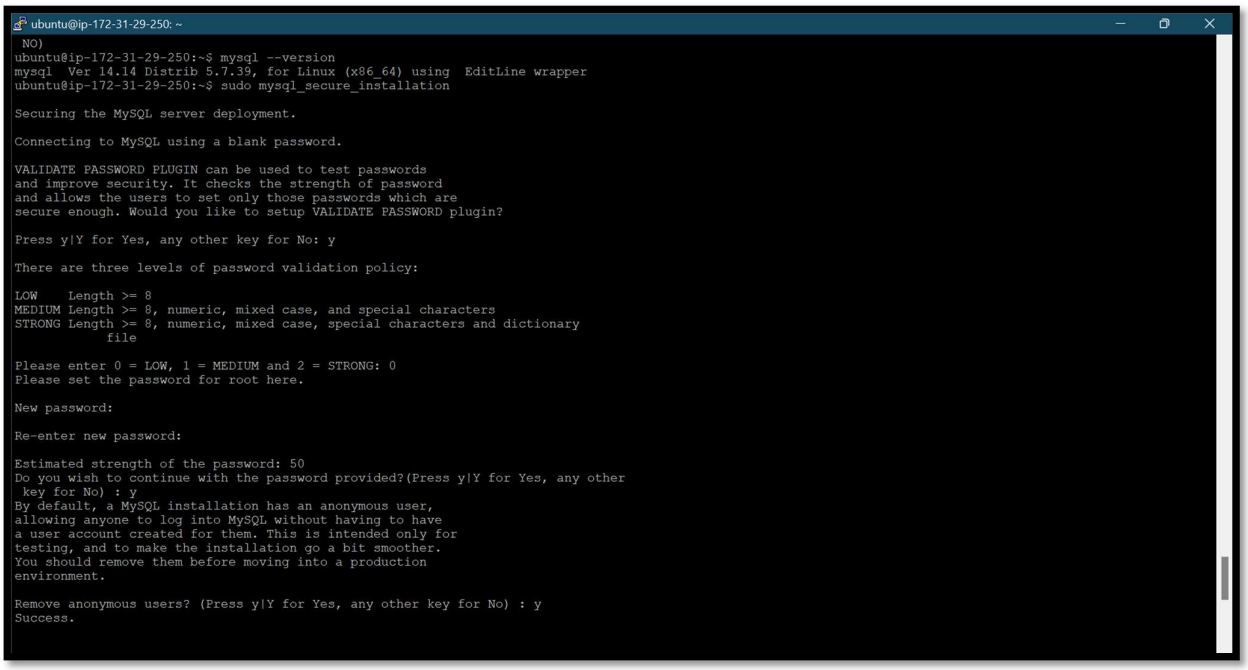
You can use the following command to generate a list of users.

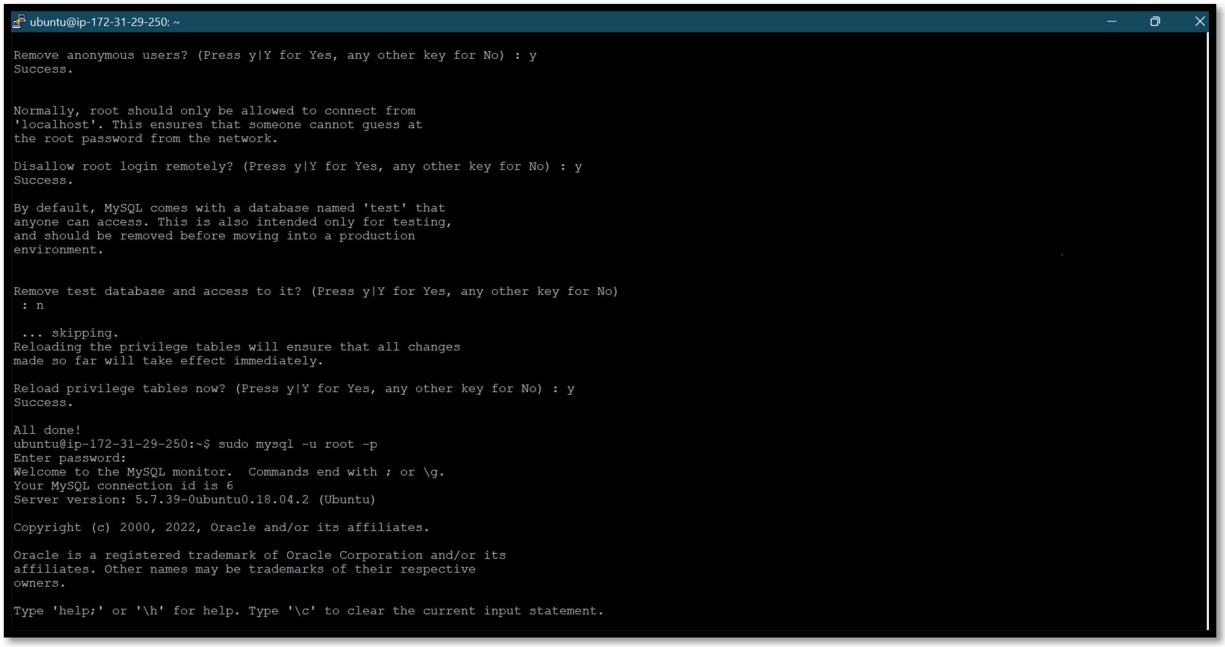
Mysql> SELECT User, Host, authentication_string FROM mysql.user;

Mysql> exit

OUTPUT:







RESULT:

Thus mysql is installed successfully in Google compute engine using Paas services

Ex No:5 Date:	LINUX INSTALLATION USING VMware

Aim:

To Install VMware Workstation with different flavours of Linux or Windows OS on top of windows 7 or 8

Procedure:

Step 1: Install VMware

Step 2: Download ISO file from linux website

Step 3: Open VMWare

Step 4: Click "Open a Virtual Machine "

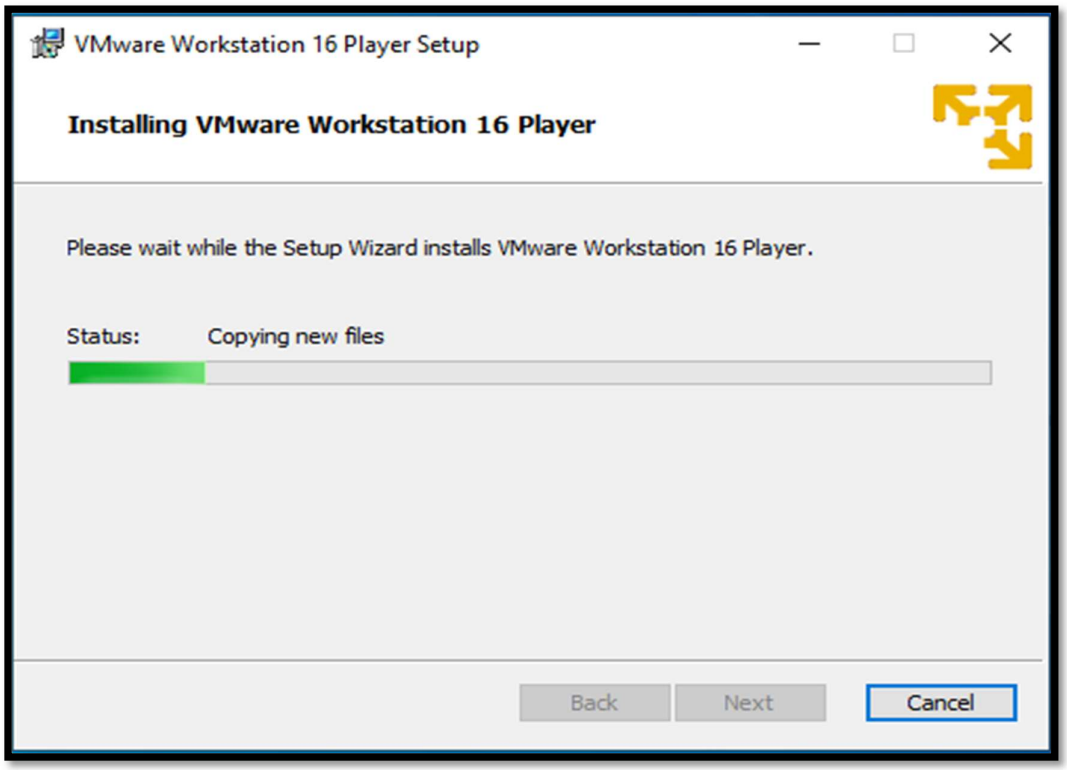
Step 5: Brows VM ware File in File Manager

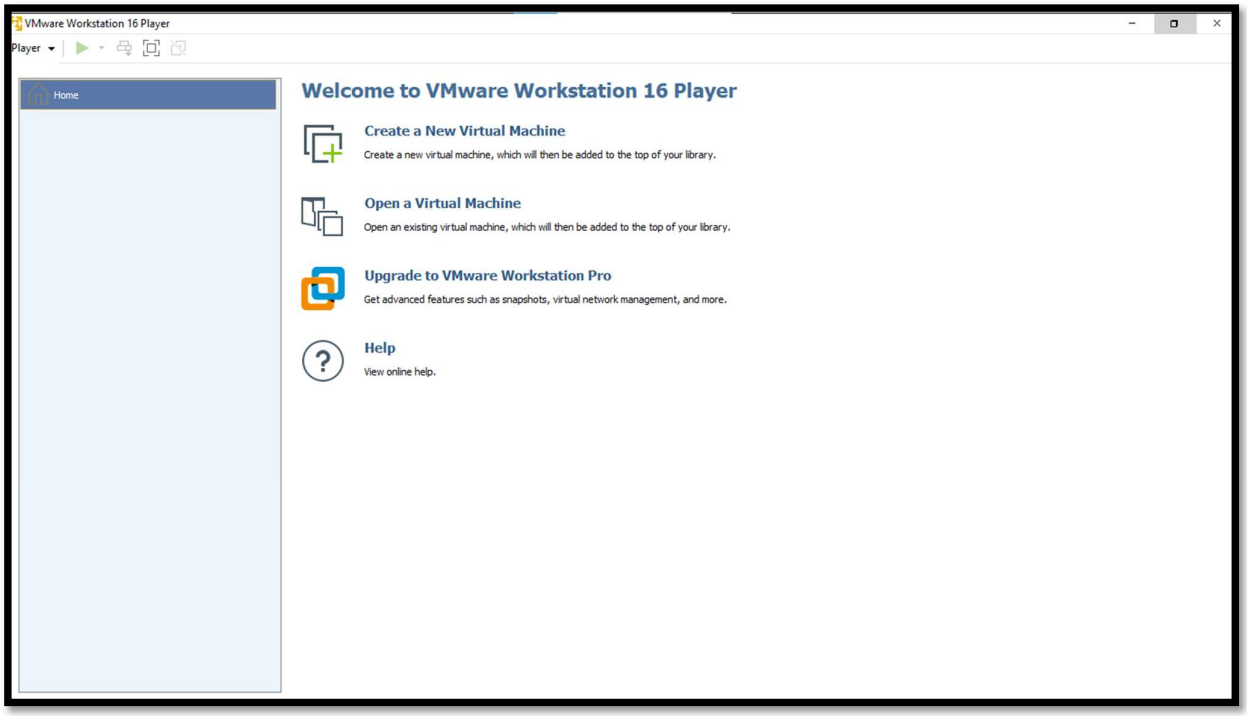
Step 6: Click Open

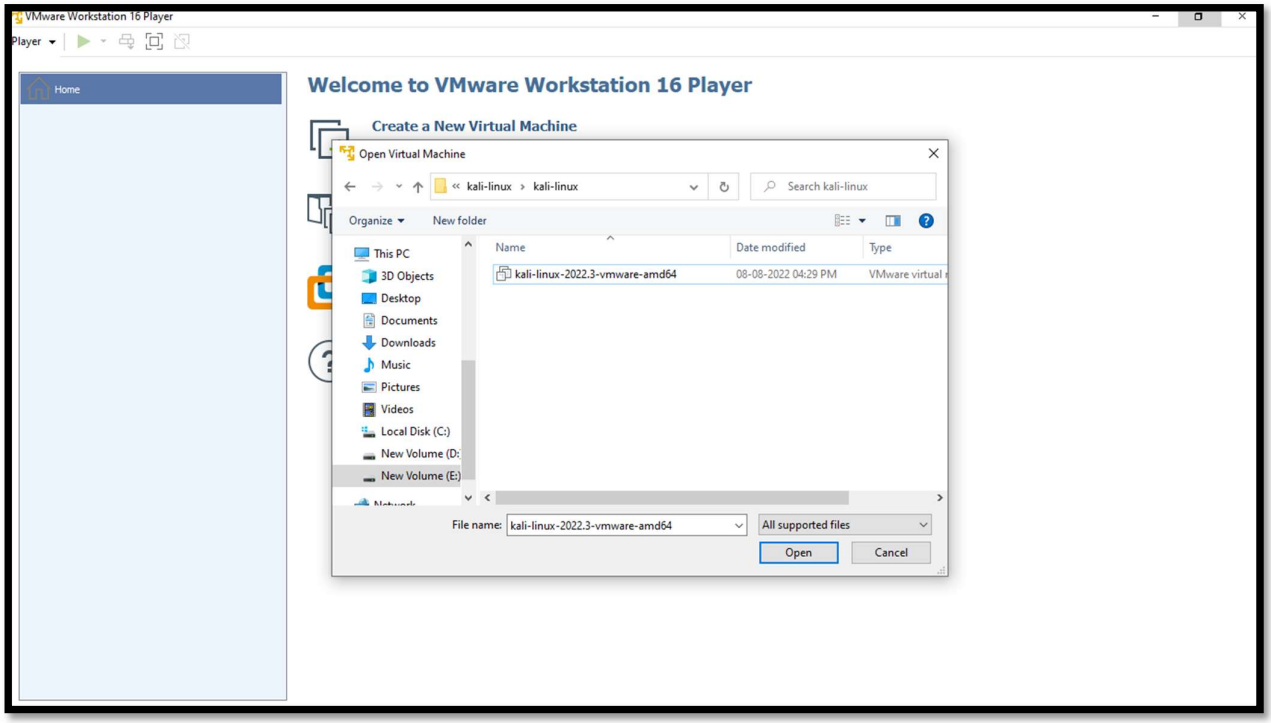
Step 7: Click Run Virtual Machine.

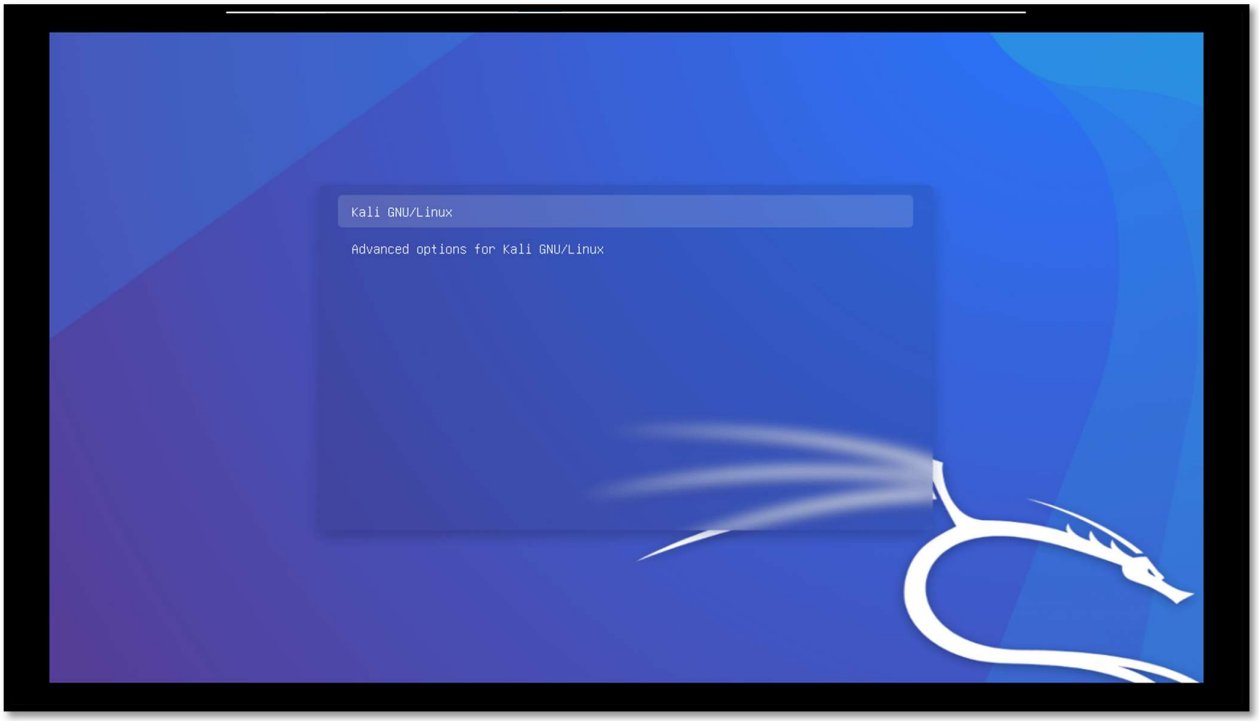
Your OS will Installed Successfully

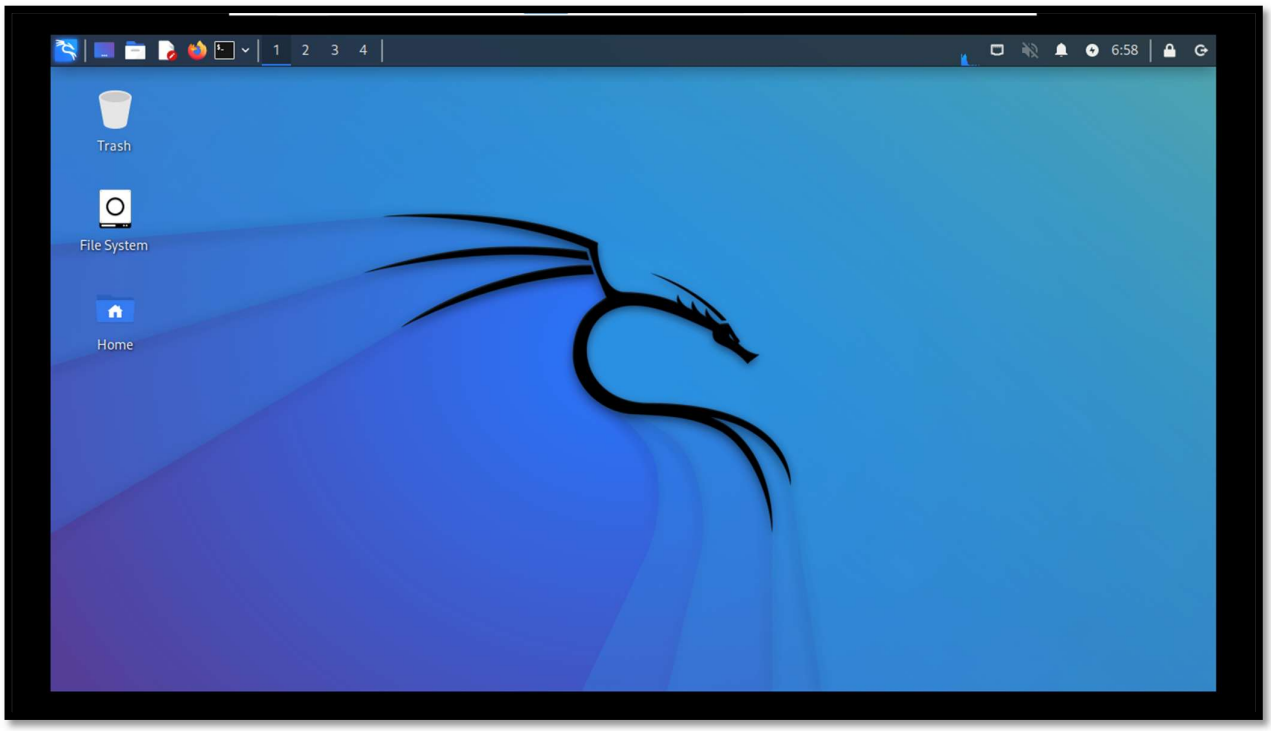
OUTPUT:


VMware Workstation 16 Player Setup
Installing VMware Workstation 16 Player
Please wait while the Setup Wizard installs VMware Workstation 16 Player.
Status: Copying new files
Back
Next
Cancel


VMware Workstation 16 Player
Player
Home
Welcome to VMware Workstation 16 Player
Create a New Virtual Machine
Create a new virtual machine, which will then be added to the top of your library.
Open a Virtual Machine
Open an existing virtual machine, which will then be added to the top of your library.
Upgrade to VMware Workstation Pro
Get advanced features such as snapshots, virtual network management, and more.
Help
View online help.


VMware Workstation 16 Player
Player
Home
Welcome to VMware Workstation 16 Player
Create a New Virtual Machine
Open Virtual Machine
kali-linux › kali-linux
Search kali-linux
Organize
New folder
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Local Disk (C:)
New Volume (D:
New Volume (E:)
Name
Date modified
Type
kali-linux-2022.3-vmware-amd64
08-08-2022 04:29 PM
File name:
kali-linux-2022.3-vmware-amd64
All supported files
Open
Cancel


Kali GNU/Linux
Advanced options for Kali GNU/Linux



RESULT:

Thus the Linux os is installed in the virtual box successfully.

Ex No:6 Date:	OPEN STACK INSTALLATION

Aim:

To install the open stack and use it as a infrastructure as a service and Use technology own cloud

Procedure:

Steps to install openstack on Ubuntu 18.04 in Virtual box

1) First install virtual box https://www.virtualbox.org/wiki/Downl...

2) Download Ubuntu 18.04 ISO https://releases.ubuntu.com/18.04/

3) Create Ubuntu 18.04 VM in Virtual box 4 GB RAM + 2 vCPUs Hard disk capacity of Min 10 GB

4) After succesful installation of ubuntu ,start Openstack installation

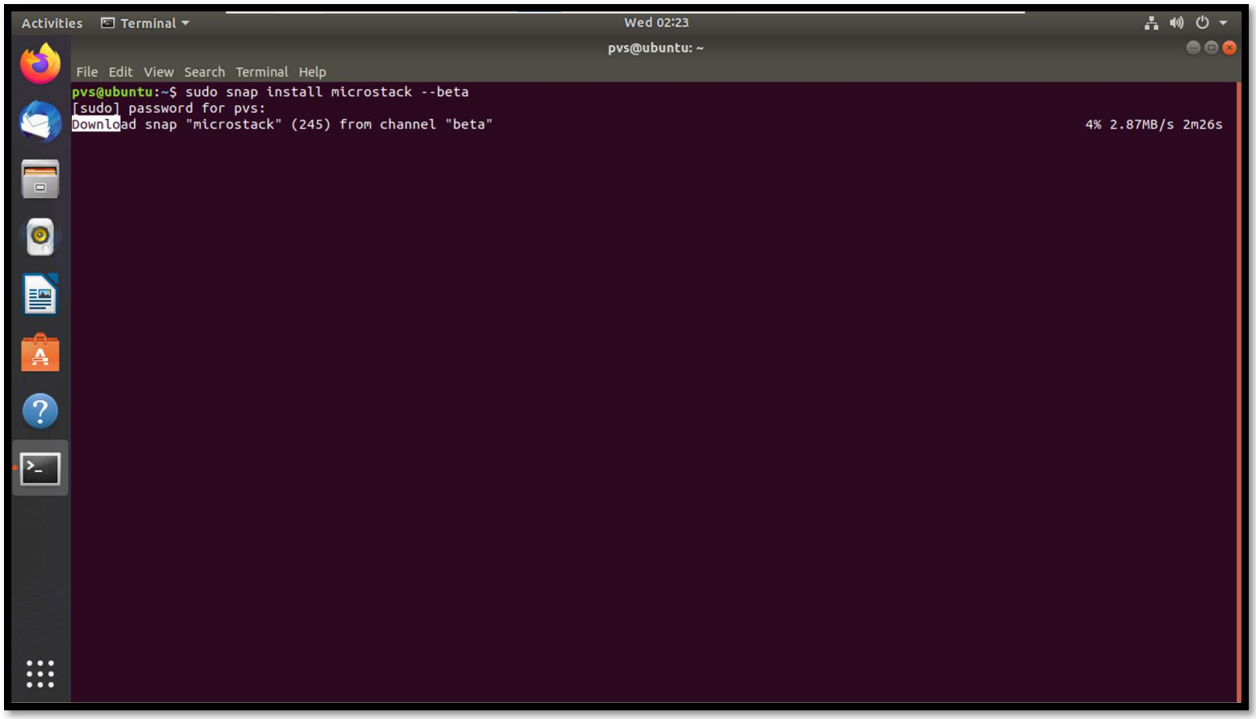
Execute below steps in terminal:

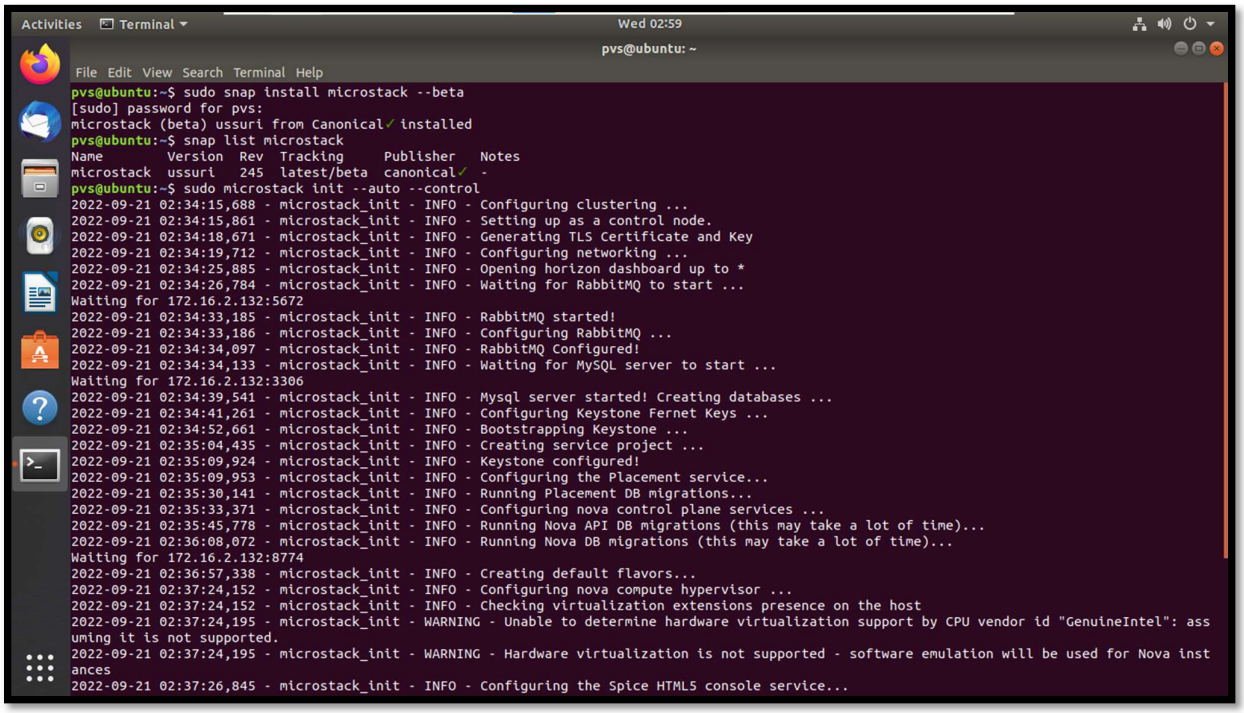
```
sudo snap install microstack –beta
snap list microstack
sudo microstack init --auto --control
sudo apt install net-tools
ifconfig
```

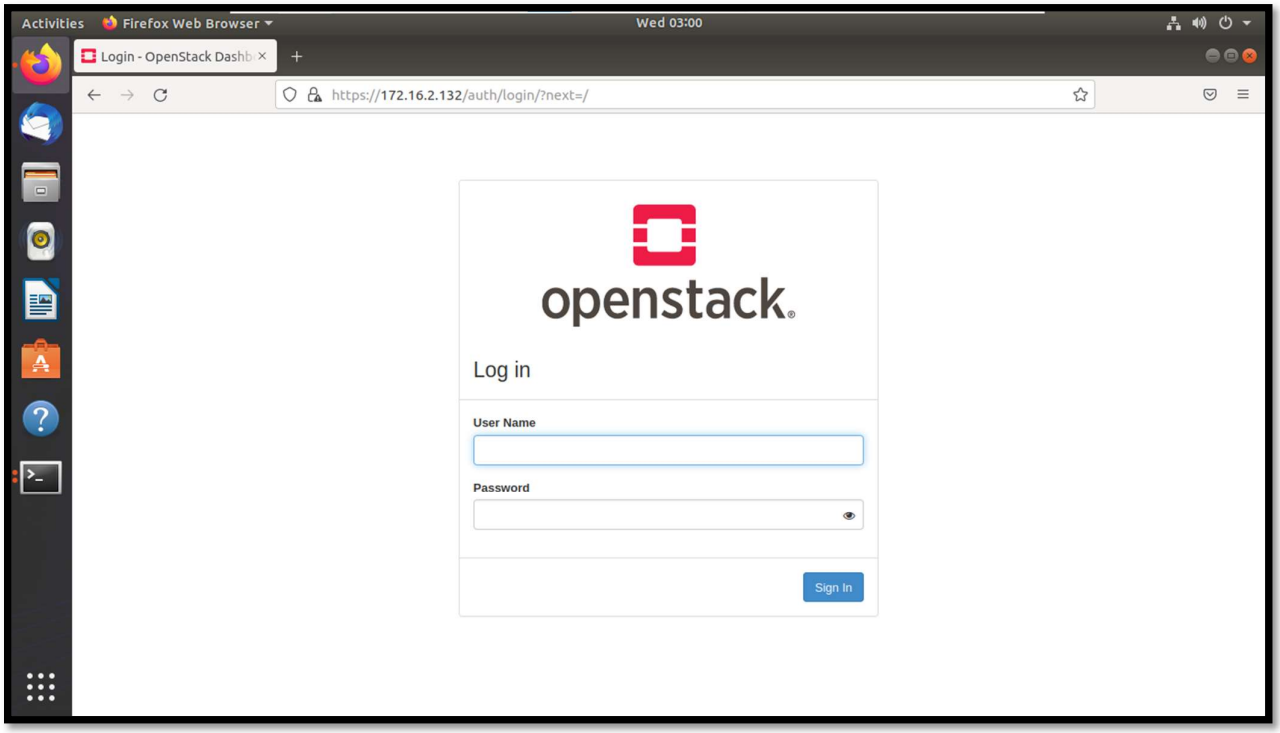
After Successfully installation of Openstack access the Horizon dashboard with below URL:

http://10.20.20.1/dashboard

OUTPUT:


Activities
Terminal
Wed 02:23
pvs@ubuntu: ~
File Edit View Search Terminal Help
pvs@ubuntu:~$ sudo snap install microstack --beta
[sudo] password for pvs:
Download snap "microstack" (245) from channel "beta" 4% 2.87MB/s 2m26s


Activities
Terminal
Wed 02:59
pvs@ubuntu: ~
File Edit View Search Terminal Help
pvs@ubuntu:~$ sudo snap install microstack --beta
[sudo] password for pvs:
microstack (beta) ussuri from Canonical✓ installed
pvs@ubuntu:~$ snap list microstack
Name Version Rev Tracking Publisher Notes
microstack ussuri 245 latest/beta canonical✓ -
pvs@ubuntu:~$ sudo microstack init --auto --control
2022-09-21 02:34:15,688 - microstack_init - INFO - Configuring clustering ...
2022-09-21 02:34:15,861 - microstack_init - INFO - Setting up as a control node.
2022-09-21 02:34:18,671 - microstack_init - INFO - Generating TLS Certificate and Key
2022-09-21 02:34:19,712 - microstack_init - INFO - Configuring networking ...
2022-09-21 02:34:25,885 - microstack_init - INFO - Opening horizon dashboard up to *
2022-09-21 02:34:26,784 - microstack_init - INFO - Waiting for RabbitMQ to start ...
Waiting for 172.16.2.132:5672
2022-09-21 02:34:33,185 - microstack_init - INFO - RabbitMQ started!
2022-09-21 02:34:33,186 - microstack_init - INFO - Configuring RabbitMQ ...
2022-09-21 02:34:34,097 - microstack_init - INFO - RabbitMQ Configured!
2022-09-21 02:34:34,133 - microstack_init - INFO - Waiting for MySQL server to start ...
Waiting for 172.16.2.132:3306
2022-09-21 02:34:39,541 - microstack_init - INFO - Mysql server started! Creating databases ...
2022-09-21 02:34:41,261 - microstack_init - INFO - Configuring Keystone Fernet Keys ...
2022-09-21 02:34:52,661 - microstack_init - INFO - Bootstrapping Keystone ...
2022-09-21 02:35:04,435 - microstack_init - INFO - Creating service project ...
2022-09-21 02:35:09,924 - microstack_init - INFO - Keystone configured!
2022-09-21 02:35:09,953 - microstack_init - INFO - Configuring the Placement service...
2022-09-21 02:35:30,141 - microstack_init - INFO - Running Placement DB migrations...
2022-09-21 02:35:33,371 - microstack_init - INFO - Configuring nova control plane services ...
2022-09-21 02:35:45,778 - microstack_init - INFO - Running Nova API DB migrations (this may take a lot of time)...
2022-09-21 02:36:08,072 - microstack_init - INFO - Running Nova DB migrations (this may take a lot of time)...
Waiting for 172.16.2.132:8774
2022-09-21 02:36:57,338 - microstack_init - INFO - Creating default flavors...
2022-09-21 02:37:24,152 - microstack_init - INFO - Configuring nova compute hypervisor ...
2022-09-21 02:37:24,152 - microstack_init - INFO - Checking virtualization extensions presence on the host
2022-09-21 02:37:24,195 - microstack_init - WARNING - Unable to determine hardware virtualization support by CPU vendor id "GenuineIntel": ass
uming it is not supported.
2022-09-21 02:37:24,195 - microstack_init - WARNING - Hardware virtualization is not supported - software emulation will be used for Nova inst
ances
2022-09-21 02:37:26,845 - microstack_init - INFO - Configuring the Spice HTML5 console service...



RESULT:

Thus the open stack is installed successfully in the virtual box

Ex No:7 Date:	CASE STUDY Amazon EC2 and Azure

AIM:

Case study on open source and commercial cloud.

THEORY:

Amazon Web Services (AWS) and Microsoft Azure are the two giants in the world of cloud computing.

While AWS is the largest cloud computing platform, Microsoft Azure is the fastest-growing and second-largest.

Azure is a cloud computing platform and an online portal that allows you to access and manage cloud services and resources provided by Microsoft. These services and resources include storing your data and transforming it, depending on your requirements. To get access to these resources and services, all you need to have is an active internet connection and the ability to connect to the Azure portal.

Azure provides more than 200 services, are divided into 18 categories. These categories include computing, networking, storage, IoT, migration, mobile, analytics, containers, artificial intelligence, and other machine learning, integration, management tools, developer tools, security, databases, DevOps, media identity, and web services.

Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) Cloud. Using Amazon EC2 eliminates your need to invest in hardware up front, so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.