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Create a Virtual Machine using Vmware

7. Aim: - To create a Vmware using Vmware workstation with 1 CPU, 2 Gb ram and 15 GB Storage and launch.

Procedure:

- ⇒ Install the virtualisation software
- ⇒ It has Virtualisation as type 2.
- ⇒ download an OS Image file.
- ⇒ Start Vmware
- ⇒ Configure the hardware setting
- ⇒ Install Vm and launch

Explanation:

- ⇒ Vm
- ⇒ Vmm
- ⇒ Virtualisation
- ⇒ Types of Virtualisation

Outcome: The Vm using Ubuntu Image has be configure and installed on a type 2 hypervisor using Vm workstation.

Output:

Devices	
Memory	2GB
Processor	1
Harddisk	15GB
CD/DVD	Auto
Network	NAT
USB controller	Present
Display	Auto

17/08

Memory Upgradation

8. Aim: To create a virtual hard disc for the given virtual machine and allow around 10Gb storage from HDD

Procedure:

- firstly launch the vmware
- under customize hardware → add storage
- select appropriate storage type
- finish configuration
- check to see if the hard disk is added in vm

Outcome: An virtual hard disk has been added inside the vm machine.

Output:

→ Devices

Memory	10GB
Processor	2GB
Harddisk	50GB
CD/DVD	Using file C:\Program Files (x86)\VMware\
Network	NAT
USB controller	Present
Sound card	Auto
Display	Auto

17/08

Snapshot Creation

9 Aim: To create a snapshot & test to see if the deleted content are restored after reloading.

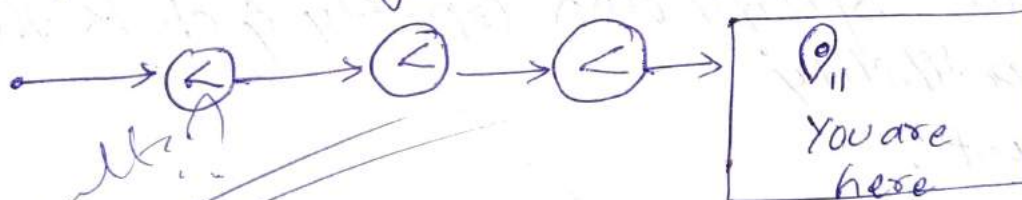
Procedure:

- create a snapshot of the vm
- deleted few files and restore the snapshot by launching the snap version of vm
- ⇒ Shutdown the vm & create a clone of vm under manage vm.
- Open the vmx file from the cloud location of vm & test the cloned version.

Outcome: The Snap shot & clone of the vm has been implemented & tested.

Output:

Snapshot manager:



Result:

Devices

Memory	2GB
Processor	2
Harddisk	60GB
Network	Present
Sound card	Auto

10. Aim: To create a cloning of vm and test it by loading the previous version / cloned vm.

Procedure:

- Go to vmware workstation
- Create a virtual machine with 2Gb Ram
- Create a virtual machine with 4Gb
- The cloning of vm

Explanation:

- After increasing the vm workstation
For installing this we need to check which OS is suitable
- Then select the option as vmware workstation
- After installing vmware → open create new virtual machine
- Then click above option as per your requirement
- select specify disk capacity & check the compatibility

Output:

memory	2GB
Processor	2
Hard disk	20GB
CD/DVD	Auto
Network	NAT
User controller	Present

memory	2GB
processor	2
Harddisk	20GB
CD/DVD	Auto
Network	NAT
USB controller	Present

Result:

The virtual machine is created and also verified by giving outputs.

11. Aim: To change the hardware compatibility of a vm either by clone/ create a new Virtual machine.

Procedure:

- Go to Vmware Workstation
- Right click the vm
- Add hardware at a select SCSI & click next
- click now virtual disk
- Give the name & finish
- Maximum size has to be choosed
- click next then finish
- change the no. of processors
- Hardware compatibility is changed.
- Select the Specify disk capacity & compare

Output

memory	2GB
Processor	2
Harddisk	20GB
CD/DVD	Auto
Network Adapter	NAT
USB Controller	Present
Sound control	Auto detect

memory	2GB
Processor	3
Harddisk	40GB
CD/DVD	Auto
Network adapter	NAT
USB Controller	Present
Sound control	Auto detect

12.

Aim: To demonstrate Infrastructure as a Service by creating a resource group by using public cloud service providers.

Procedure:

- * create an account in azure
- * Go to Resources & create a group
- * Give necessary info & create a VM with your IP and username & Password.
- * Now Resize the virtual machine
- * create a new window & virtual machine

Explanation:

- for Installing this we need to check which OS is suitable
- Select the option as VM ware workstation.
- After clicking all the required options then click finish & create VM.

Output:

Hithesh

Virtual machine

Connect Start Stop Restart Delete

Properties

Computer name	Hithesh	Size - Standard	
OS	Linux	VCPUS	2
VM generation	2	RAM	8 GIB
Host group	None		
Host	—		

13.

Aim: to create Infrastructure as a Service by creating a virtual machine using a public cloud service provider.

Procedure:

- Go to microsoft.azure.com
- create a new account on microsoft
- Go to basic group & create Resource
- Create a virtual network to create a virtual machine
- now create a virtual machine with IP & username & password.
- And your virtual machine is developed
- Now connect the virtual machine & password for virtual machine & download file to open new window vm

Output

Hithesh

Virtual machine

Connect Start Restart Stop Capture

Properties

Computer name : Hithesh

OS : Linux

Host : None

VM generation : 2

Agent status : Ready

Disk

OS disk : disk1

Encryption : Disable

Data disk : 1

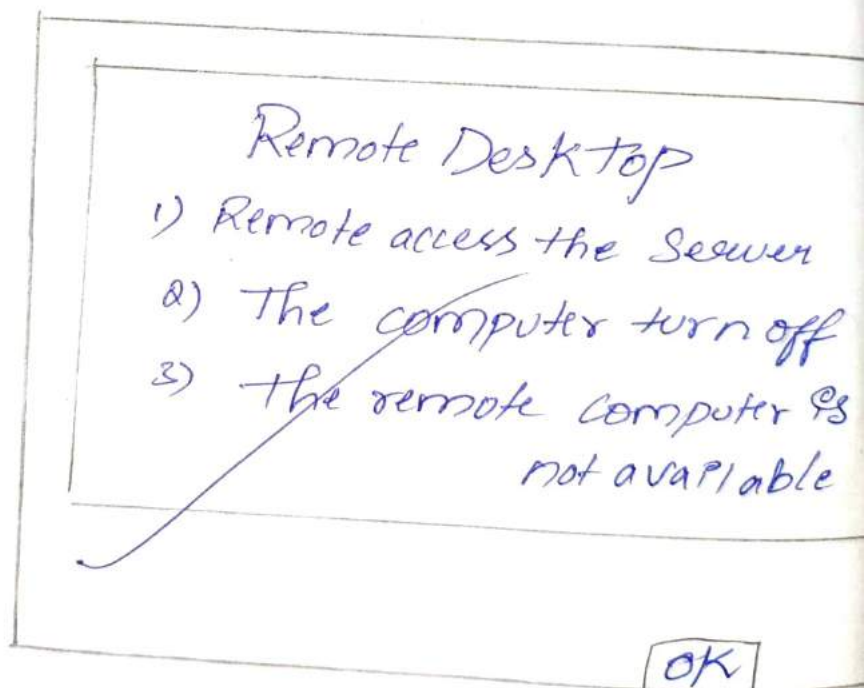
Result: By using the azure (Infrastructure
as a service) is created & verified success

14. Aim: To demonstrate a Infrastructure as a Service by establishing remote connection. Launch the VM Image & Remote on your desktop.

Procedure:

- create an account in azure
- Go to resource group & create a resource
- Create a virtual network for Virtual machine
- Now virtual machine is developed
- create an image. Through console, created virtual image by specification
- Launch the Virtual machine using image created. You can now access VM remotely.

Output



Result:

Thus the Virtual machine is created & remote connection is established.

15. Aim: To demonstrate PaaS Service & create & configure a new VM Image in cloud service.
Procedure:

- Go to azure portal and Sign in
- create a new resource then search for web app & click create.
- chose unique name for web app select SubSCRIPTION.
- chose runtime stack your web app & configure settings
- You can deploy web application code to azure
- Once can be done in various methods like Git repository from Visual Studio.
- Deployment is done you receive a URL when you can access the web app.

Output



Recycle bin



Aug 3



Result: Thus the VM & VM Image created & tested successfully.

16. Aim: Create a simple website using any public Cloud Service provider (Azure / AWS) and check public accessibility of stored files.

Procedure:

- Give necessary Details in basic and tags and click review.
 - Go to Resource group & create a resource group.
 - Now the Resource group created go to app services & create web application.
 - Enter Resource group & web app name & select region.
 - After enter the necessary things click the review.
- Output:

HPthush
WebApp

Microsoft Azure

Hey, Node developer

Your app service is up & running

Result: Thus the web application is created & successfully executed.

Output:

azurehitfresh
webapp

Browse Start Swap Delete

^ Essentials

Resource group: hitfreshgroup

Status: Stopped

Location: East US

Web app

Name: azurehitfresh

Publish model: code

Default domain:

App service plan

OS: Linux

17.

Aim: To demonstrate storage as a service
create & configure new vm image on any
public cloud provider.

Procedure:

- Go to Azure
- In azure portal click on create resources
then search for Storage as Service account
and click create.
- Select the appropriate performance & replication
option and specify
- Once the Storage account is created navigate
to it
- configure containers with unique name ^{add new container} for
container. Set the access level & click
create.
- upload any file & after uploading the
file you can get its public URL.

Output:

Trash

Terminal

Note
Pad

UBUNTU

Storage Account?

Result: thus the storage as a service for
VMD image is created & executed

18. Coread

Aim: To Demonstrate a storage as a service using any public cloud service provider and check the public Accessibility

Procedure:

- Go to Azure portal
- create a new resource then Search for Storage as a account & click create
- choose a unique name and select 1PK appropriate configuration
- once the Storage Account is created then Create new container.
- choose the unique name for container
- After uploading file, click on upload file & view

Output:

← → ↻

≡ Renet

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Result:

The storage as a service was created and successfully executed.

Result: Thus using the VM Image is
created and successfully executed.

19. Aim: To create a database as a Service
Create and configure VM Image on any
cloud Service provider.

Procedure:

- Go to Azure
- Login with your any of your Email
- create a SQL Database and select the resource group which was created.
- Enter the Server name and name of database uniquely.
- Networking Select allow azure Service resources to access Services.
- In additional Settings sample
- The Database is Deployed.

Output:

← → R

Home →

Microsoft SQL database, new database

cancel

Refresh

Name
ID

✓ Your deployment is complete

Go to Resources

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Aim: To create a SQL storage Service & Perform a Basic query using any cloud Service

Procedure:

- Go to Azure
- Login & now create a Sample resource
- Now create new Service SQL Database & select resource group which was created
- Enter the Servername the name of database. ✓ Elabon kb
- on networking select allow azure Service & resources
- In additional setting Select Simple
- Database is being created.
- Now create a table & try to retrieve those database using SQL

OR/Query Editor

Query
Run

create Table Markfield
Varchar
Regno, Marker Integer

Result: the SAT 92 created by Simon Riley
executed.

Basic Configuration of Hadoop

Q1.

Aim: To perform the basic configurations for installation of Hadoop like creation & configuration the HDFS and SSH locally.
Procedure:

1) The first thing is setup the web on your system. Run the following commands to proceed.

```
$ sudo apt - add - repository ppa:webupd8team/java
```

```
$ sudo apt - get update
```

```
$ sudo apt - get install oracle-java8-installer
```

2) These steps must be followed for installation of Java.

```
$ sudo add group hadoop
```

```
$ sudo add user hduser Sudo
```

3) Install SSH and create configuration

```
$ sudo apt - get install ssh
```

```
$ sudo useradd hduser
```

```
$ ssh-keygen -t rsa -P ''
```

Output:

22.

Creation of datanode & namenode

Aim: Install hadoop 2x and configure the name node & data node.

Procedure:

* Make Sure we have installed java on system
if not then

\$ sudo apt update

\$ sudo apt install default-jdk

→ Download Hadoop 2.x package from site

website & extract it by using

\$ cd / - sudo tar xzf hadoop-x.x.x

\$ Edit Basic files or bash-profile to set necessary environment variables by

\$ source ~/bashrc

* Configure hadoop directory & modify the configuration files.

\$ cd Hadoop - Home/etc/hadoop

\$ sudo nano hadoop-env.sh

\$ sudo nano core-site.xml

* Add configuration inside

* HDFS site.xml

\$ at \$ Home/: ssh: id - rsa.pub >> Home/ssh

* click it on MWork

auto sizes

* Set local host

* Install hadoop

4 Extract Hadoop 2.7.2


```
$ sudo tar xvfz hadoop 2.7.2
# create a folder "hadoop" in /local
$ sudo mkdir -p /local/hadoop
```

output:

Result:

The name node & datanode is created & executed.

23.

Map reducing

Aim: To create a Hadoop 2x & test the map reduce platform with Hadoop.

Procedure:

* open terminal

\$ su hduser

password

\$ start dfs and map reduce site

\$ cd /usr/local/hadoop/hadoop-2.7.2/bin

\$ start-dfs.sh

\$ start-yarn.sh

* check Hadoop through web UI

https://localhost:8088

http://localhost:50070

* Local new terminal

\$ cd desktop

\$ mkdir inputdata

\$ cd input

\$ echo Hello hello

\$ cat > hello.txt

G back to old terminal

\$ hadoop fs -copyfrom local/home/Desktop/inputdata/hello.txt

or checking hello.txt name node

* Download and open eclipse by creating a new workspace.

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Word count

Aim: To launch hadoop & perform map reduce program for word count problem.

Procedure:

- * open terminal
- * sc hd user
- \$ password
- * start dfs & yarn services
- \$ cd /user/local/hadoop/hadoop-2.7.2/b
- \$ start - dfs.sh
- \$ start - logn.sh
- \$ j.p.s
- * check hadoop on web UI
- Go to browser <https://localhost:50070>
- <http://localhost:8088>
- * open new terminal
- \$ cd Desktop
- \$ mkdir inputdata
- \$ cd inputdata
- \$ echo 'Hi, Hello'
- \$ cat >> hello.txt
- * Go to the old terminal
- \$ hadoop fs & copy from local /home/ha
- desktop /input data

output:

Result: Thus the Mapreduce program and word count problem is created & executed.

Passport Application

1. Aim: Create a webapp for passport application System.

Procedure:

- ⇒ open the Zoho
- ⇒ Signup which is already present in site
- ⇒ next you should give password and mail
- ⇒ now we get complete login
- ⇒ ~~We~~ have to choose the creator option
- ⇒ It will ask the name given for app
- ⇒ Based on application choose name
- ⇒ fill the details which are given in the Template

- ⇒ fill the details which are given the template for application.
- ⇒ after filling click "done"
- ⇒ give input & check the output whether selected or not.

Result: The webapp is created and then verified by checking with the given inputs

Output:

Name :	<input type="text"/>	<input type="text"/>
email :	<input type="text"/>	
Phno :	<input type="text"/>	
Address :	<input type="text"/>	
Date of birth :	<input type="text"/>	
	<input type="text"/>	

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Cab Booking

Q. Aim: Create a web app for cab booking system

Procedure:

- open the zoho.com
- log in to zoho
- By using complete login details
- By click the creator we can given name
- fill the details for the information needed for Template
- fill the information related to your cab booking system
- click the "done"
- Check whether the details are done or not
- after filling done with options.

Result: The webapp for cab booking system is created & the verified/successfully
Output

Name:	<input type="text"/>	<input type="text"/>
Phone:	<input type="text"/>	
Address:	<input type="text"/>	
Start date:	<input type="text"/>	
Time:	<input type="text"/>	
Book now:	<input type="checkbox"/>	

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Employee Payroll

3. Aim: create a web app for employee payroll system.

Procedure:

- open the Zoho app
- it asks for Authentication
- It shows different applications like creator, app... etc
- click "creator"
- Then it asks choose "Template"
- Choose template based on your need.
- choose template of your application.
- Otherwise choose by our own option.
- They are:
 - Name
 - Id, email, phno etc
- fix the details & click done option
- Next give the Input According to you as App & choose output with Input

Result: The webapp for employee payroll system is created & then verified successfully.

Output:

Name:	<input type="text"/>	Basic pay	<input type="text"/>
email:	<input type="text"/>	DA	<input type="text"/>
Address:	<input type="text"/>	CCA	<input type="text"/>
Basic pay:	<input type="text"/>	TAX	<input type="text"/>
Salary:	<input type="text"/>		

16/08
4.

Student Information

Aim: Create a web application for Student Information System. 16/08

Procedure:

- open the Zoho.com
- Log in to Zoho & give IPK error
- Now it provides options to choose
- have creator as the option which we can access our data.
- Next it uses title based on your application
- fill details that are given in template
- after filling details click done ^{Details}
- given inputs according to your app & check with input whether it is selected or not

Result: The web app for Student Information system is created & verified.

Output:

Name:	<input type="text"/>	<input type="text"/>
Registration Number:	<input type="text"/>	
Year of admission:	<input type="text"/>	
Sub form		
Subject name	Percent	
+ Add new		

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Hotel reservation

5. Aim: create a App for hotel reservation system.

Procedure:

- ⇒ open zoho app
- ⇒ It asks permissions
- ⇒ Enter mail & password. It shows creator click on it.
- ⇒ go to New collection where we have to create
- ⇒ choose the template which is suitable for your app
- ⇒ In template shows options which we have to fill

Attributes: → Hotel name
→ cost name, phno, email
→ date, leaving date

- fill details & click "done"
- next give inputs According to your application & check out the Working.

Result: The webapp for Hotel reservation system is verified output

Name:	<input type="text"/>	<input type="text"/>
Mobileno:	<input type="text"/>	
Checkin:	<input type="text"/>	
No. of rooms:	<input type="text"/>	

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VMware Application

6. Aim: Create the VMware application with name.

Procedure:

→ At first we should create VMware workstation.

→ Then open it show options.

→ Click on "Home"

→ Directly show the options on screen

• create a new virtual machine → open VM → connect server

→ Click on create new

→ It asks chose the Virtual machine

→ It shows just operation system installed
click next

→ To select the operation

• Microsoft

• Linux

• VMware

• Other

→ then allocate memory choose network

→ Type & select disk type

→ VM will be created with following procedure.

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Create a Virtual Machine using Vmware

7. Aim: - To create a VM using Vmware workstation with 1 CPU, 2 Gb ram and 15 GB Storage and launch.

Procedure:

- ⇒ Install the virtualisation software
- ⇒ It has Virtualisation as type 2.
- ⇒ download an OS Image file.
- ⇒ Start Vmware
- ⇒ Configure the hardware setting
- ⇒ Install VM and launch

Explanation:

- ⇒ VM
- ⇒ VMM
- ⇒ Virtualisation

Types of Virtualisation

Outcome: The VM using Ubuntu Image has be configure and installed on a type 2 hypervisor using Vm workstation.

Output:

Devices

Memory	2GB
Processor	1
Harddisk	15GB
CD/DVD	Auto
Network	NAT
USB controller	Present
Display	Auto

17/08

Snapshot Creation

9 Aim: To create a snapshot & test to see if the deleted content are restored after reloading.

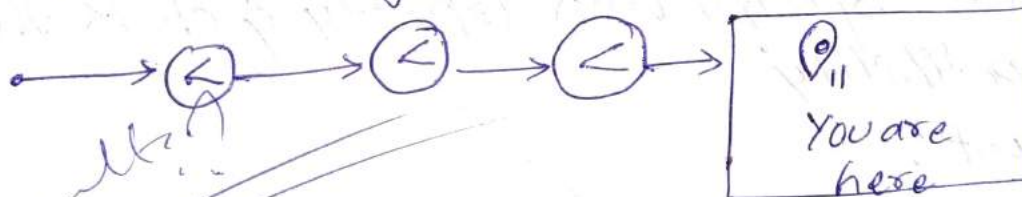
Procedure:

- create a snapshot of the vm
- deleted few files and restore the snapshot by launching the snap version of vm
- ⇒ Shutdown the vm & create a clone of vm under manage vm.
- Open the vmx file from the cloud location of vm & test the cloned version.

Outcome: The Snap shot & clone of the vm has been implemented & tested.

Output:

Snapshot manager:



Result:

Devices

Memory	2GB
Processor	2
Harddisk	60GB
Network	Present
Sound card	Auto

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Memory Upgradation

8. Aim: To create a virtual hard disc for the given virtual machine and allow around 10Gb storage from HDD

Procedure:

- firstly launch the vmware
- under customize hardware → add storage
- select appropriate storage type
- finish configuration
- check to see if the hard disk is added in vm

Outcome: An virtual hard disk has been added inside the vm machine.

Output:

→ Devices

Memory	10GB
Processor	2GB
Harddisk	50GB
CD/DVD	Using file C:\Program Files (x86)\VMware\
Network	NAT
USB controller	Present
Sound card	Auto
Display	Auto

10. Aim: To create a cloning of vm and test it by loading the previous version / cloned vm.

Procedure:

- Go to vmware workstation
- Create a virtual machine with 2Gb Ram
- Create a virtual machine with 4Gb
- The cloning of vm

Explanation:

- After increasing the vm workstation
For installing this we need to check which OS is suitable
- Then select the option as vmware workstation
- After installing vmware → open create new virtual machine
- Then click above option as per your requirement
- select specify disk capacity & check the compatibility

Output:

memory	2GB
Processor	2
Hard disk	20GB
CD/DVD	Auto
Network	NAT
User controller	Present

memory	2GB
processor	2
Harddisk	20GB
CD/DVD	Auto
Network	NAT
USB controller	Present

Result:

The virtual machine is created and also verified by giving outputs.

11. Aim: To change the hardware compatibility of a vm either by clone/ create a new Virtual machine.

Procedure:

- Go to Vmware Workstation
- Right click the vm
- Add hardware at a select SCSI & click next
- click now virtual disk
- Give the name & finish
- Maximum size has to be choosed
- click next then finish
- change the no. of processors
- Hardware compatibility is changed.
- Select the Specify disk capacity & compare

Output

memory	2GB
Processor	2
Harddisk	20GB
CD/DVD	Auto
Network Adapter	NAT
USB Controller	Present
Sound control	Auto detect

memory	2GB
Processor	3
Harddisk	40GB
CD/DVD	Auto
Network adapter	NAT
USB Controller	Present
Sound control	Auto detect

12.

Aim: To demonstrate Infrastructure as a Service by creating a resource group by using public cloud service providers.

Procedure:

- * create an account in azure
- * Go to Resources & create a group
- * Give necessary info & create a VM with your IP and username & Password.
- * Now Resize the virtual machine
- * create a new window & virtual machine

Explanation:

- for Installing this we need to check which OS is suitable
- Select the option as VM ware workstation.
- After clicking all the required options then click finish & create VM.

Output:

Hithesh

Virtual machine

Connect Start Stop Restart Delete

Properties

Computer name	Hithesh	Size - Standard	
OS	Linux	VCPUS	2
VM generation	2	RAM	8 GIB
Host group	None		
Host	—		

13.

Aim: to create Infrastructure as a Service by creating a virtual machine using a public cloud service provider.

Procedure:

- Go to [microsoft azure.com](https://microsoft.com/azure)
- create a new account on microsoft
- Go to basic group & create Resource
- Create a virtual network to create a virtual machine
- now create a virtual machine with IP & username & password.
- And your virtual machine is developed
- Now connect the virtual machine & password for virtual machine & download file to open new window vm

Output

Hithesh

Virtual machine

Connect Start Restart Stop Capture

Properties

Computer name : Hithesh

OS : Linux

Host : None

VM generation : 2

Agent status : Ready

Disk

OS disk : disk1

Encryption : Disable

Data disk : 1

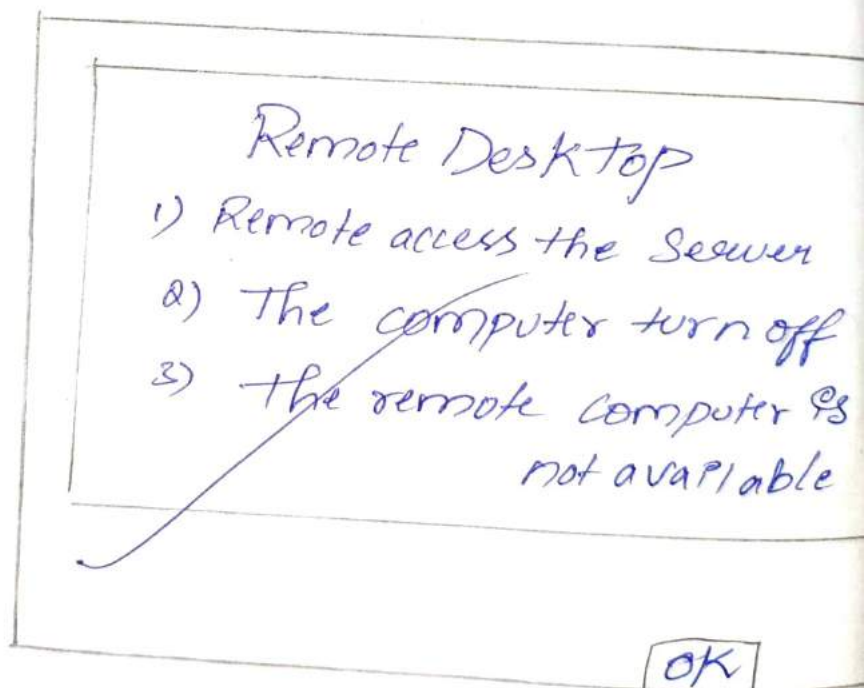
Result: By using the azure (Infrastructure
as a service) P_3 created & verified success

14. Aim: To demonstrate a Infrastructure as a Service by establishing remote connection. Launch the VM Image & Remote on your desktop.

Procedure:

- create an account in azure
- Go to resource group & create a resource
- Create a virtual network for Virtual machine
- Now virtual machine is developed
- create an image. Through console, created virtual image by specification
- Launch the Virtual machine using image created. You can now access VM remotely.

Output



Result:

Thus the Virtual machine is created & remote connection is established.

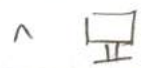
15. Aim: To demonstrate PaaS Service & create & configure a new VM Image in cloud Service.
Procedure:

- Go to azure portal and Sign in
- create a new resource then search for web app & click create.
- chose unique name for Web app select SubSCRIPTION.
- chose runtime stack your web app & configure settings
- You can deploy web application code to azure
- Once can be done in various methods like Git repository from Visual Studio.
- Deployment is done you receive a URL when you can access the web app.

Output



Recycle bin



Aug 3



Result: Thus the VM & VM Image created & tested successfully.

16. Aim: Create a simple website using any public Cloud Service provider (Azure / AWS) and check public accessibility of stored files.

Procedure:

- Give necessary Details in basic and tags and click review.
 - Go to Resource group & create a resource group.
 - Now the Resource group created go to app services & create web application.
 - Enter Resource group & web app name & select region.
 - After enter the necessary things click the review.
- Output:

HPThush
WebApp

Microsoft Azure

Hey, Node developer

Your app service is up & running

Result: Thus the web application is created & successfully executed.

Output:

azurehitfresh
webapp

Browse Start Swap Delete

^ Essentials

Resource group: hitfreshgroup

Status: Stopped

Location: East US

Web app

Name: azurehitfresh

Publish model: code

Default domain:

App service plan

OS: Linux

17.

Aim: To demonstrate storage as a service
create & configure new vm image on any
public cloud provider.

Procedure:

- Go to Azure
- In azure portal click on create resources
then search for Storage as Service account
and click create.
- Select the appropriate performance & replication
option and specify
- Once the Storage account is created navigate
to it
- configure containers with unique name ^{add new container} for
container. Set the access level & click
create.
- upload any file & after uploading the
file you can get its public URL.

Output:

Trash

Terminal

Note
Pad

UBUNTU

Storage Account?

Result: thus the storage as a service for
VMD image is created & executed

18. Coread

Aim: To Demonstrate a storage as a service using any public cloud service provider and check the public Accessibility

Procedure:

- Go to Azure portal
- create a new resource then Search for Storage as a account & click create
- choose a unique name and select 1P1K appropriate configuration
- once the Storage Account is created then Create new container.
- choose the unique name for container
- After uploading file, click on upload file & view

Output:

← → ↻

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19. Aim: To create a database as a Service
Create and configure VM Image on any
cloud Service provider.

Procedure:

- Go to Azure
- Login with your any of your Email
- create a SQL Database and select the resource group which was created.
- Enter the Server name and name of database uniquely.
- Networking Select allow azure Service resources to access Services.
- In additional Settings sample
- The Database is Deployed.

Output:

← → ↻

Home →

Microsoft SQL database, new database

cancel

↻ Refresh

Name
✓

Your deployment is complete

[Go to Resources](#)

Result:

The storage as a service was created and successfully executed.

Result: Thus using the VM Image is
created and successfully executed.

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Aim: To create a SQL storage Service & Perform a Basic query using any cloud Service

Procedure:

- Go to Azure
- Login & now create a Sample resource
- Now create new Service SQL Database & select resource group which was created
- Enter the Servername the name of database. ✓ Elabon kb
- on networking select allow azure Service & resources
- In additional setting Select Simple
- Database is being created.
- Now create a table & try to retrieve those database using SQL ✓

OR/Query Editor

Query
Run

create Table Markfield
Varchar
Regno, Marker Integer

Result: the SAT 92 created by Simon Riley
executed.

Basic Configuration of Hadoop

Q1.

Aim: To perform the basic configurations for installation of Hadoop like creation & configuration the HDFS and SSH locally.

Procedure:

1) The first thing is setup the web on your system. Run the following commands to proceed.

```
$ sudo apt - add - repository ppa:webupd8team/java
```

```
$ sudo apt - get update
```

```
$ sudo apt - get install oracle-java8-installer
```

2) These steps must be followed for installation of Java.

```
$ sudo add group hadoop
```

```
$ sudo add user hdfsuser Sudo
```

3) Install SSH and create configuration

```
$ sudo apt - get install ssh
```

```
$ sudo useradd hdfsuser
```

```
$ ssh-keygen -t rsa -P ''
```

output:

22.

Creation of datanode & namenode

Aim: Install hadoop 2x and configure the name node & data node.

Procedure:

* Make Sure we have installed java on system
if not then

\$ sudo apt update

\$ sudo apt install default-jdk

→ Download Hadoop 2.x package from site

website & extract it by using

\$ cd / - sudo tar -xzf hadoop-x.x.x

\$ Edit Basic files or bash-profile to set necessary environment variables by

\$ source ~/bashrc

* Configure hadoop directory & modify the configuration files.

\$ cd Hadoop - Home/etc/hadoop

\$ sudo nano hadoop-env.sh

\$ sudo nano core-site.xml

* Add configuration inside

* HDFS site.xml

\$ at \$ Home/: ssh: id - rsa.pub >> Home/ssh

* click it ssh work

auto sizes

* Set local host

* Install hadoop

4 Extract Hadoop 2.7.2


```
$ sudo tar xvfz hadoop 2.7.2
# create a folder "hadoop" in /local
$ sudo mkdir -p /local/hadoop
```

output:

Result:

The name node & datanode is created & executed.

23.

Map reducing

Aim: To create a Hadoop 2x & test the map reduce platform with Hadoop.

Procedure:

* open terminal

\$ su hduser

password

\$ start dfs and map reduce site

\$ cd /usr/local/hadoop/hadoop-2.7.2/bin

\$ start-dfs.sh

\$ start-yarn.sh

* check Hadoop through web UI

https://localhost:8088

http://localhost:50070

* Local new terminal

\$ cd desktop

\$ mkdir inputdata

\$ cd input

\$ echo Hello hello

\$ cat > hello.txt

G back to old terminal

\$ hadoop fs -copyfrom local/home/Desktop/inputdata/hello.txt

or checking hello.txt name node

* Download and open eclipse by creating a new workspace.

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Word count

Aim: To launch hadoop & perform map reduce program for word count problem.

Procedure:

- * open terminal
- * set had user
- \$ password
- * start dfs & yarn services
- \$ cd /user/local/hadoop/hadoop-2.7.2/b
- \$ start - dfs.sh
- \$ start - logn.sh
- \$ j.p.s
- * check hadoop on web UI
- Go to browser <https://localhost:50070>
- <http://localhost:8088>
- * open new terminal
- \$ cd Desktop
- \$ mkdir inputdata
- \$ cd inputdata
- \$ echo 'Hi, Hello'
- \$ cat > hello.txt
- * Go to the old terminal
- \$ hadoop fs -copy from local /home/hadoop/Desktop/inputdata

output:

Result: Thus the Mapreduce program and word count problem is created & executed.

10/12

Cab Booking

Q. Aim: Create a web app for cab booking system

Procedure:

- open the zoho.com
- log in to zoho
- By using complete login details
- By click the creator we can given name
- fill the details for the information needed for Template
- fill the information related to your cab booking system
- click the "done"
- Check whether the details are done or not
- after filling done with options.

Result: The webapp for cab booking system is created & the verified/successfully
Output

Name:	<input type="text"/>	<input type="text"/>
Phone:	<input type="text"/>	
Address:	<input type="text"/>	
Start date:	<input type="text"/>	
Time:	<input type="text"/>	
Book now:	<input type="checkbox"/>	

Passport Application

1. Aim: Create a webapp for passport application System.

Procedure:

- ⇒ open the Zoho
- ⇒ Signup which is already present in site
- ⇒ next you should give password and mail
- ⇒ now we get complete login
- ⇒ ~~We~~ have to choose the creator option
- ⇒ It will ask the name given for app
- ⇒ Based on application choose name
- ⇒ fill the details which are given in the Template

- ⇒ fill the details which are given the template for application.
- ⇒ after filling click "done"
- ⇒ give input & check the output whether selected or not.

Result: The webapp is created and then verified by checking with the given inputs

Output:

Name :	<input type="text"/>	<input type="text"/>
email :	<input type="text"/>	
Phno :	<input type="text"/>	
Address :	<input type="text"/>	
Date of birth :	<input type="text"/>	
	<input type="text"/>	

16/8

Employee Payroll

3. Aim: create a web app for employee payroll system.

Procedure:

- open the Zoho app
- it asks for Authentication
- It shows different applications like creator, app... etc
- click "creator"
- Then it asks choose "Template"
- Choose template based on your need.
- choose template of your application.
- Otherwise choose by our own option.
- They are:
 - Name
 - Id, email, phno etc
- fix the details & click done option
- Next give the Input According to you as App & choose output with Input

Result: The webapp for employee payroll system is created & then verified successfully.

Output:

Name:	<input type="text"/>	Basic pay	<input type="text"/>
email:	<input type="text"/>	DA	<input type="text"/>
Address:	<input type="text"/>	CCA	<input type="text"/>
Basic pay:	<input type="text"/>	TAX	<input type="text"/>
Salary:	<input type="text"/>		

16/08
4.

Student Information

Aim: Create a web application for Student Information System. 16/08

Procedure:

- open the Zoho.com
- Log in to Zoho & give IPK error
- Now it provides options to choose
- have creator as the option which we can access our data.
- Next it uses title based on your application
- fill details that are given in template
- after filling details click done ^{Details}
- given inputs according to your app & check with input whether it is selected or not

Result: The web app for Student Information system is created & verified.

Output:

Name:	<input type="text"/>	<input type="text"/>
Registration Number:	<input type="text"/>	
Year of admission:	<input type="text"/>	
Sub form		
Subject name	Percent	
+ Add new		