

				remarks
1.	16-10/23	Car Booking reservation	1	✓
2.	16/10/23	Flight reservation	3	✓
3.	16/10/23	property Buying and Renting	5	✓
4.	16/10/23	Library Book reservation system	7	✓
5.	16/10/23	Basic pay role system	9	✓
6.	16/10/23	web API for student information	11	✓
7.	17/10/23	install Vm software and create VM	13	✓
8.	17/10/23	install Vm software and setup	15	✓
9.	17/10/23	create cloning and snapshot	17	✓
10.	17/10/23	create virtual hard disk and allocate storage	19	✓
11.	17/10/23	create a Virtual machine with 1 CPU, 15 GB storage using type 2 hypervisor	21	✓
12.	17/10/23	create virtual machine with 15 GB storage	23	✓
13.	18/10/23	create microsoft azure account and resource	25	
14.	18/10/23	create virtual machine in microsoft azure	27	
15.	18/10/23	to create a storage service using microsoft azure	29	
16.	18/10/23	to develop a database and store it in sql storage using Azure	31	
17.	18/10/23	to create a web application using microsoft Azure	33	
18.	18/10/23	to create a application using microsoft Azure	35	
19.	19/10/23	to create a Name node and data node using Hadoop	37	
20.	19/10/23	to perform map reduce program using Hadoop	39	

## EXPERIMENT NO:13

### 13.To create a Microsoft azure account and resources

Resource group  
Tcreate Manage View Refresh Export to v  
create  
\* Basic Tags Review create  
project detail  
subscription Azure for student  
Resource group  
personal detail  
Region

13) Aim: To create microsoft Azure account and resources in it.  
Software required: Microsoft Azure, internet

procedure:

- \* First open browser and search microsoft azure.
- \* Click on the free version for students.
- \* Login with credentials and code provided.
- \* Provide username and save email id for login.
- \* It open the interface for azure to login.
- \* Enter the credentials like Name, Email, Region etc.
- \* The account is created for microsoft azure.
- \* Next click on the create resources.
- \* There provide username and groupname and servers.
- \* Next click on create and review option.
- \* At last click on create option.
- \* Deployment process is generated.
- \* Next the click on resources to view the data.

Result: The creation of account for microsoft azure and resource creation has been successfully created and deployed using Azure.

## EXPERIMENT NO:14

### 14.To create a virtual machine in Microsoft azure

The image shows two pages of a handwritten notebook. The left page is titled 'Virtual machine' and lists steps for creating a VM in Azure, including switching to classic preservation, creating an Azure VM, and filling out details like subscription, resource group, and instance details. The right page is titled 'EXPERIMENT No' and contains the aim, software required, procedure, and results of the experiment.

Virtual machine

+ create → switch to classic (Preservation) (14)

↑

Create Azure VM

Basics: Disk Networking Management, Monitoring

project detail

subscription Azure for student

resource group create New

Instance details

virtual machine name                     

registered in                     

Availability option                     

security type                     

Image                     

VM                     

EXPERIMENT No

Aim: To create virtual machine in microsoft azure.

software required: Microsoft azure, internet.

procedure:

- \* First open browser and search microsoft azure.
- \* Open microsoft azure and create an account to login.
- \* After login enter username and save the mail id.
- \* It send link to the mail id access the account through mail.
- \* It confirm the account in microsoft azure.
- \* They azure provide interface for system after login.
- \* select virtual machine option and click on it.
- \* Click on create and provide resource group name and machine name, server.
- \* At last view and create.
- \* Next Deployment is progressed.
- \* click on resources for checking and virtual machine is created.

Results: The creation of virtual machine has been successfully created and deployed using Microsoft Azure.



## EXPERIMENT NO:15

### 15.To create a storage service using Microsoft azure

storage accounts:

↑

create a account

Basic Advanced Networking Data protection

project detail

subscription Azure for student

Resource group new resource group

Instance detail:

storage account name storageaccountname

Region West Europe

performance Standard

Redundancy Locally redundant storage

☒ Make a read access

create

↑

15) Aim: To create a storage service using Microsoft azure and demonstrate it by using a static web page.

Prerequisites: Microsoft azure, internet

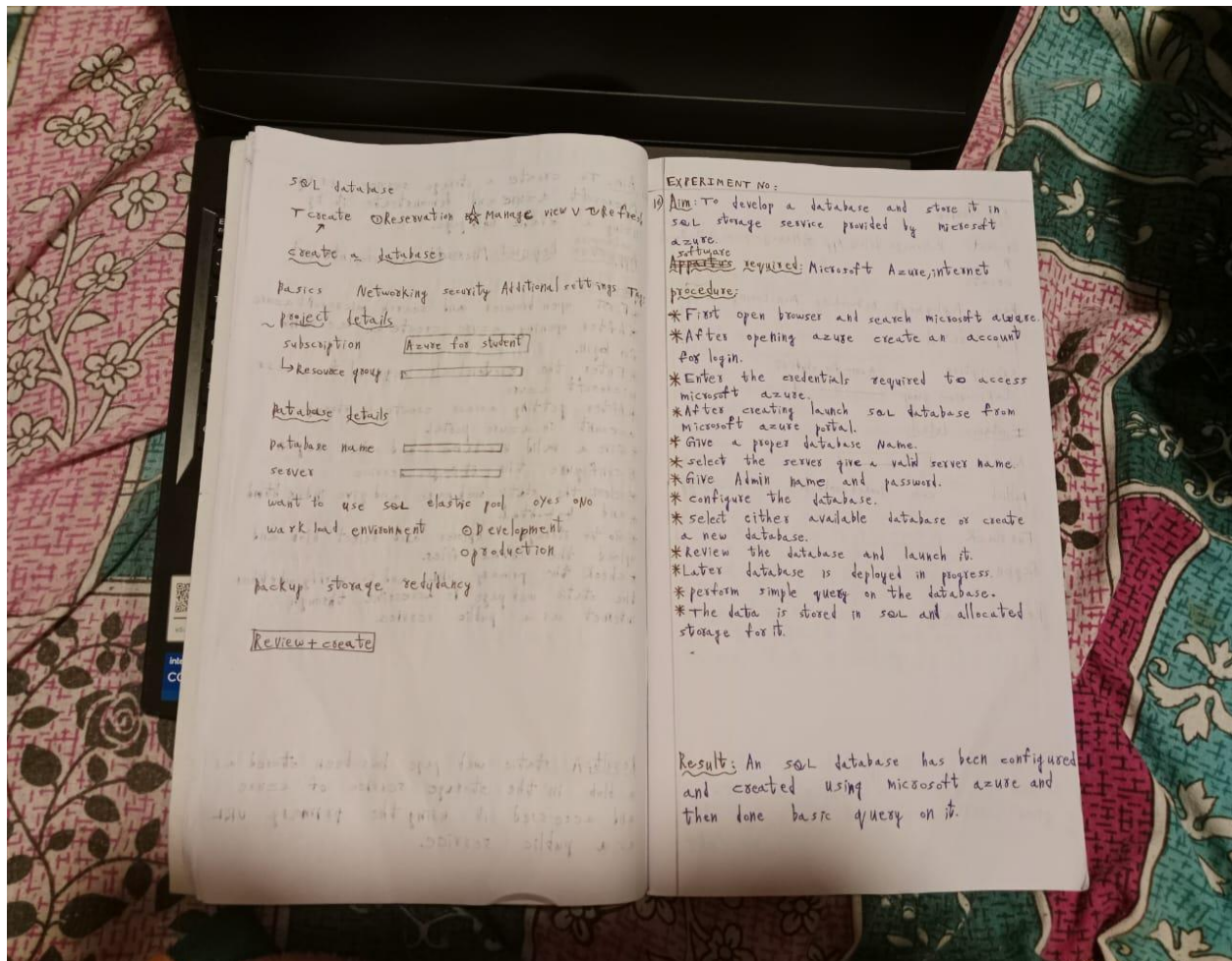
procedure:

- \* First open browser and search microsoft azure.
- \* After opening azure create an account for login.
- \* Enter the credentials required to access microsoft azure.
- \* After getting access create a storage account in azure portal.
- \* Give a valid username and select region.
- \* configure the storage service.
- \* select the static web page and give index.html and 404.html.
- \* Go to storage explorer and select blob and upload the html files.
- \* check the primary URL and to verify whether the static web page is accessible through internet as a public service.

Result: A static web page has been stored as a blob in the storage service of azure and accessed it using the primary URL as a public service.

## EXPERIMENT NO:16

16.To develop a database and store it in SQL storage using Microsoft azure



## EXPERIMENT NO:17

### 17.To create a web application using Microsoft azure

App service  
+ create    Manage delete App    Manage view    Refresh  
↑  
create

Basic Deployment Networking Monitoring Tag  
project detail

Subscription    Azure for student  
↳ Resource group    \_\_\_\_\_

Instance detail:  
Name    \_\_\_\_\_  
publish    code    locked container    static web app  
Fun stack    \_\_\_\_\_  
Region    \_\_\_\_\_  
Review + create

17) Aim: To create a web application using Microsoft Azure and deploy and publish it on internet and access.

Software Required: Microsoft azure, internet

Procedure:  
\* First open browser and search microsoft azure.  
\* After opening azure create an account to login.  
\* Provide Email, Name, Region etc to access the microsoft azure.  
\* Launch the app service in microsoft azure portal.  
\* Give a valid web app name.  
\* Select code and select other java or .net or runtime stack.  
\* Select the preferred web server stack i.e. either Tomcat or JBoss.  
\* Select the preferred operating system.  
\* Select the region for deploying the app.  
\* Review it and create the application.  
\* Deploy it on the given URL.  
\* Use the URL of the web app and check to see if it is working.

Result: A simple cloud application has been created using Java or Tomcat web server and deployed. It has been tested using the URL.

## EXPERIMENT NO:18

### 18.To create an application using Microsoft azure

**App service**  
+create +manage delete App +manage view +refresh  
create

**basic** Deployment Networking Monitoring Tag  
project detail

**subscription** Azure for student  
→ Resource group

**Instance detail:**  
Name web app  
publish code opcodes static web app  
Run stack container  
Region  
Review + create

18) **Aim:** To create an application using Microsoft Azure and deploy publish it on internet as pass.

**Software required:** Microsoft Azure, Internet.

**procedure:**

- \* First open browser and search Microsoft Azure.
- \* After opening Azure create an account to login.
- \* Provide Email, Name, Region etc. to access the Microsoft Azure.
- \* Launch the app service in the Microsoft Azure portal.
- \* Give a valid app Name.
- \* Select the code and select either program as runtime stack.
- \* Select the preferred webserver stack.
- \* Select the preferred operating system.
- \* Select the region for deploying the app.
- \* Review it and create the application.
- \* Deploy it on the given URL.
- \* Use the URL of the web app and check to see if it is working.

**Result:** A simple cloud application has been created using Python or Tomcat web server and deployed. It has been tested using the URL.



## EXPERIMENT NO:19

### 19.To create a Data node and name node in Hadoop architecture

19) Aim: To create datanode and Namenode using Hadoop.

Apparatus required: Hadoop software, Internet

procedure:

- \* Download and install the hadoop software and java.
- \* setup the files for running hadoop.
- \* use the commands for creating namenode and datanode.
- \* `$ sudo mkdir -p /usr/local/hadoop-tmp/hdfs`
- \* `$ sudo mkdir -p /usr/local/hadoop-tmp/hdfs`  
// changing ownership to hdfs.
- \* `$ sudo chown -R hduser:hadoop /usr/local/hadoop-tmp`  
// Edit hdfs-site.xml
- \* `$ sudo nano hdfs-site.xml`  
// Edit core-site.xml
- \* `$ sudo nano core-site.xml`
- \* `$ sudo nano yarn-site.xml`
- \* `$ sudo nano mapred-site.xml`

Result: The creation of data node and namenode has been successfully created and deployed using hadoop software.



## EXPERIMENT NO:20

20.To create a map reduce program in java using Hadoop

### EXPERIMENT NO:20

20) Aim: To perform mapreduce program for a word count problem.

software required: Hadoop software, internet.

procedure:

- \* download and install hadoop software and Java.
- \* setup the files for running hadoop.
- \* create the java files for map reducing.

program:

```
import java.io.IOException
import org.apache.hadoop.io.LongWritable
import org.apache.hadoop.io.mapred.Mapper
import org.apache.hadoop.io.mapred.OutputCollector
import org.apache.hadoop.io.mapred.Reporter
import org.apache.hadoop.io.Text
```

```
public class wordcountmaper extends MapReduceBase
implements Mapper<LongWritable, Text, Text>
```

@ override

```
public void map(LongWritable arg0, Text arg1, OutputCollector<Text, LongWritable> arg2
throws IOException
{
    String s = arg1.toString();
    for (String word : s.split(" "))
```

→ create JAR file

→ Export JAR file

→ Go back to dd terminal and execute the word count problem.

Result: The number of words in the given file text has been countered using Map reduce algorithm in Hadoop cluster.