AZURES MASTERS

Under the guidance of:
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Branch: CST
SIC. No. : 22BCTL33
SEMESTER: 5th

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INTRODUCTION

Azure is a comprehensive cloud computing platform provided by Microsoft. It offers a wide range of services and resources that empower organizations to build, deploy, and manage applications and services through Microsoft's global network of data centers.

- **Key Features of Azure:**
- **Infrastructure as a Service (IaaS):** Azure provides virtual machines, storage, and networking capabilities, allowing users to run virtualized versions of Windows or Linux servers in the cloud.
- **Platform as a Service (PaaS):** Azure offers a platform for developing, deploying, and maintaining applications without the complexity of managing the underlying infrastructure. This includes services like Azure App Service for web applications, Azure Functions for serverless computing, and more.
- **Software as a Service (SaaS):** Microsoft offers various SaaS applications through Azure, such as Office 365, Dynamics 365, and more.
- **Data Storage and Databases:** Azure provides a range of storage solutions, including blob storage, file storage, and disk storage. It also offers managed database services like Azure SQL Database, Cosmos DB, and others.

OBJECTIVES

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- ...**Demonstrate Proficiency:** Certifications aim to validate an individual's skills and expertise in using Microsoft Azure services. This helps employers identify qualified professionals.
- **Stay Updated with Azure Technologies:** Cloud technologies, including Azure, are continually evolving. Certification programs often include updates to keep professionals abreast of the latest features, services, and best practices.
- **Enhance Career Opportunities:** Holding a certification in Microsoft Azure can enhance career opportunities. Many employers look for individuals with proven skills and certifications when hiring for cloud-related roles.
- **Build Confidence:** Completing a certification program can boost an individual's confidence in using Azure services effectively. It provides a structured learning path and validation of skills.
- **Contribute to Business Success:** Microsoft Azure certifications often focus on practical skills that can be directly applied to real-world scenarios. This enables professionals to contribute more effectively to their organizations' success by leveraging Azure services.

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CONTENTS OF THE PROGRAM

*Introduction to network,networking devices and computing devices,types of cloud computing.

- Linux GUI implementation
- IP address and subnets
- NSG & LOAD BALANCERS
- Static website hosting and storage explorer
- Azure file sync & CDN
- Azure traffic management
- Introduction to DEVops.
- Azures kubernetes services.

METHODOLOGY

- **Cloud Adoption Framework (CAF):** Microsoft provides a Cloud Adoption Framework that helps organizations define and follow best practices when adopting Azure. It includes guidance on planning, readiness, migration, and operations in the cloud.
- **DevOps Practices:** Many organizations using Azure adopt DevOps practices, which involve combining development and operations processes to improve collaboration and productivity. Azure DevOps, a set of development tools, is often used in conjunction with Azure services to facilitate this.
- **Agile Methodology:** Agile development practices are commonly used in conjunction with Azure services. This methodology emphasizes iterative development, collaboration, and flexibility, which aligns well with the dynamic nature of cloud computing.
- **Infrastructure as Code (IaC):** Azure supports Infrastructure as Code, allowing users to define and manage infrastructure using code. Tools like Azure Resource Manager (ARM) templates enable the provisioning and management of Azure resources through code.

Cont..

Security Best Practices: Azure provides a range of security features, and following security best practices is crucial. This includes proper identity and access management, encryption, network security, and compliance with regulatory standards.

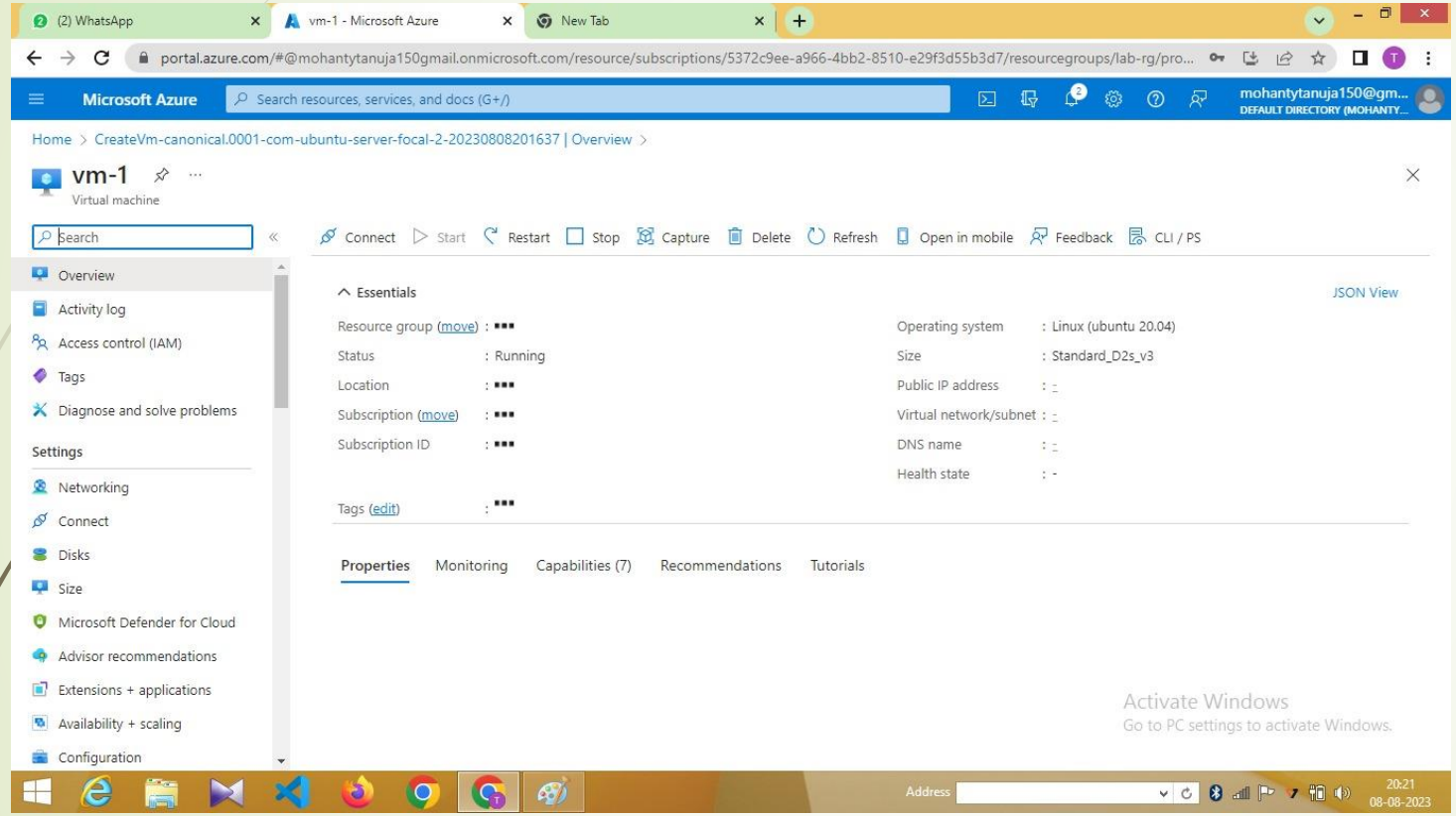
Micro services Architecture: Many organizations adopting Azure services choose a micro services architecture, which involves building an application as a collection of small, independently deployable services. Azure offers services that support micro services development and deployment.

Server less Computing: Azure provides serverless computing options, such as Azure Functions. This allows developers to focus on writing code without managing the underlying infrastructure.

Projects Done

- My project was about deployment and creating virtual machines.
- creating 2 virtual machines(for sample data) and 1 virtual machine(configuring MYSql database)and
- connection establishment to the database.
- Need to create database ,tables, and some records

HERE ARE FEW SNAPSHOTS FROM MY PROJECT.


(2) WhatsApp
vm-1 - Microsoft Azure
New Tab
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Microsoft Azure
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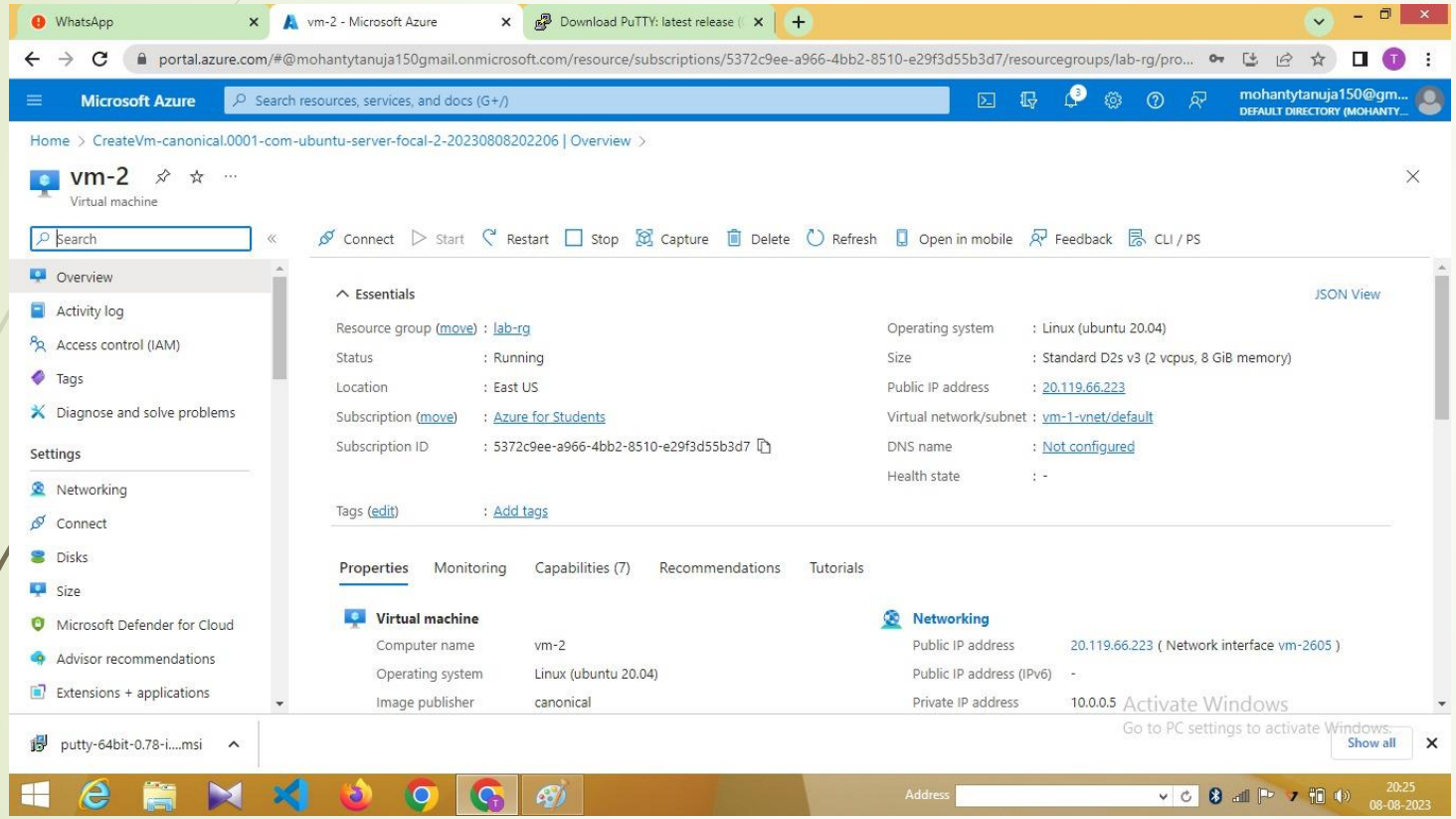
DEFAULT DIRECTORY (MOHANTY...
Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230808201637 | Overview >
vm-1
Virtual machine
Search
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Connect
Disks
Size
Microsoft Defender for Cloud
Advisor recommendations
Extensions + applications
Availability + scaling
Configuration
Connect
Start
Restart
Stop
Capture
Delete
Refresh
Open in mobile
Feedback
CLI / PS
Essentials
JSON View
Resource group (move) : ▪▪▪
Status : Running
Location : ▪▪▪
Subscription (move) : ▪▪▪
Subscription ID : ▪▪▪
Tags (edit) : ▪▪▪
Operating system : Linux (ubuntu 20.04)
Size : Standard_D2s_v3
Public IP address : -
Virtual network/subnet : -
DNS name : -
Health state : -
Properties
Monitoring
Capabilities (7)
Recommendations
Tutorials
Activate Windows
Go to PC settings to activate Windows.
Address
20:21
08-08-2023


WhatsApp
vm-2 - Microsoft Azure
Download PuTTY: latest release
portal.azure.com/#@mohantytanuja150gmail.onmicrosoft.com/resource/subscriptions/5372c9ee-a966-4bb2-8510-e29f3d55b3d7/resourcegroups/lab-rg/pro...
Microsoft Azure
Search resources, services, and docs (G+/)
mohantytanuja150@gm...
DEFAULT DIRECTORY (MOHANTY...
Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230808202206 | Overview >
vm-2
Virtual machine
Search
Connect
Start
Restart
Stop
Capture
Delete
Refresh
Open in mobile
Feedback
CLI / PS
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Networking
Connect
Disks
Size
Microsoft Defender for Cloud
Advisor recommendations
Extensions + applications
Essentials
JSON View
Resource group (move) : lab-rg
Status : Running
Location : East US
Subscription (move) : Azure for Students
Subscription ID : 5372c9ee-a966-4bb2-8510-e29f3d55b3d7
Operating system : Linux (ubuntu 20.04)
Size : Standard D2s v3 (2 vcpus, 8 GiB memory)
Public IP address : 20.119.66.223
Virtual network/subnet : vm-1-vnet/default
DNS name : Not configured
Health state : -
Tags (edit) : Add tags
Properties
Monitoring
Capabilities (7)
Recommendations
Tutorials
Virtual machine
Computer name vm-2
Operating system Linux (ubuntu 20.04)
Image publisher canonical
Networking
Public IP address 20.119.66.223 (Network interface vm-2605)
Public IP address (IPv6) -
Private IP address 10.0.0.5
Activate Windows
Go to PC settings to activate Windows.
putty-64bit-0.78-i....msi
Show all
Address
20:25
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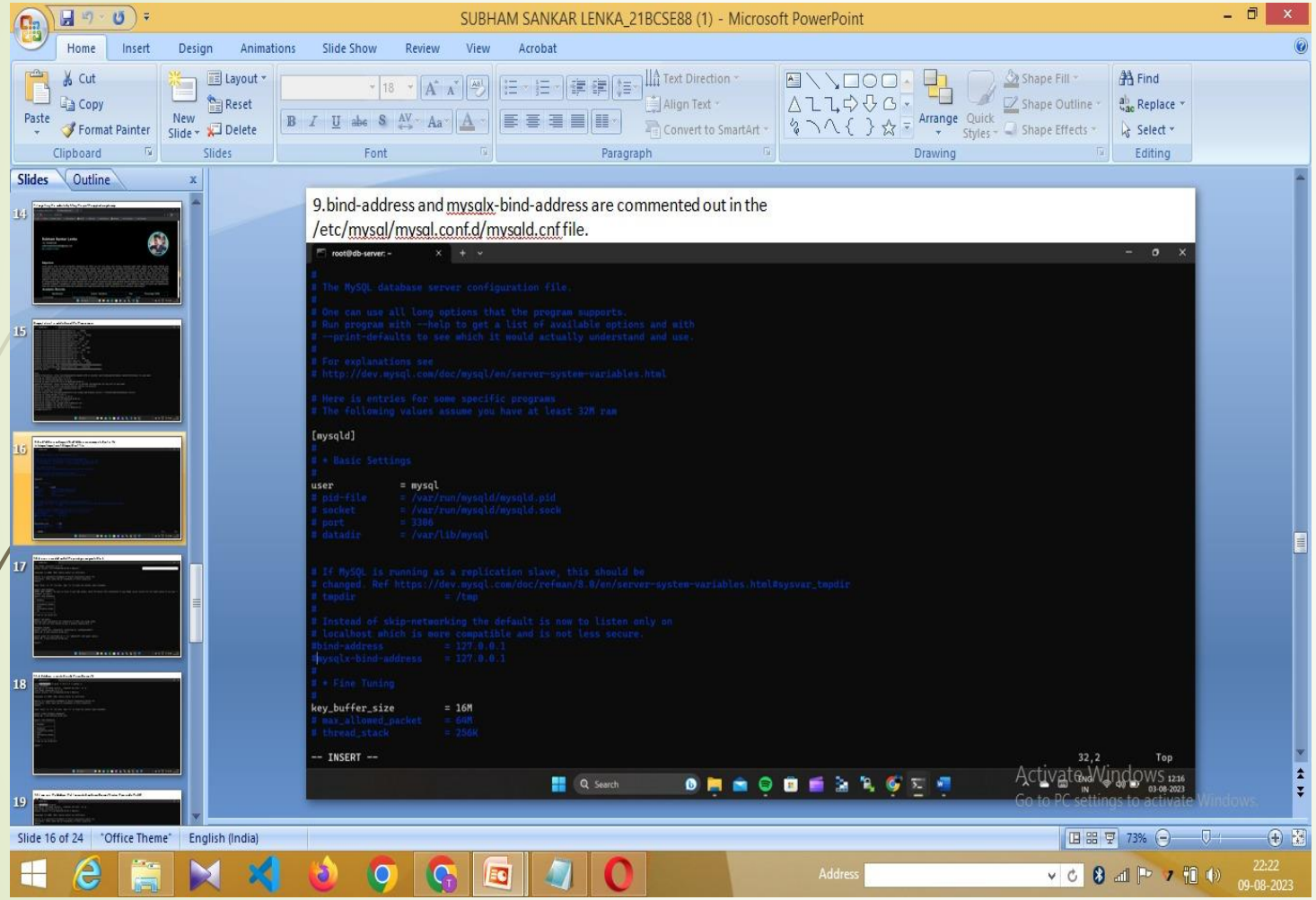
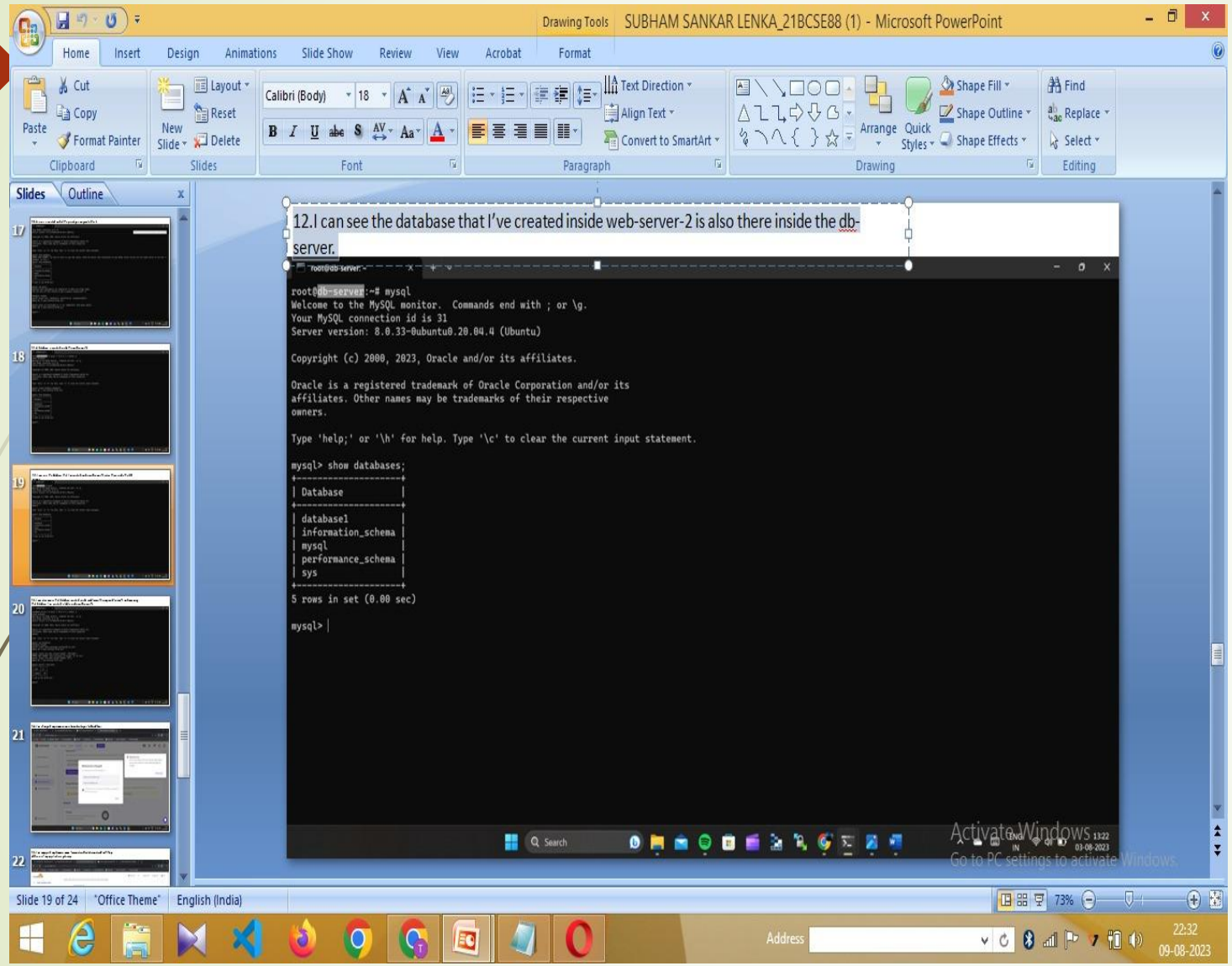
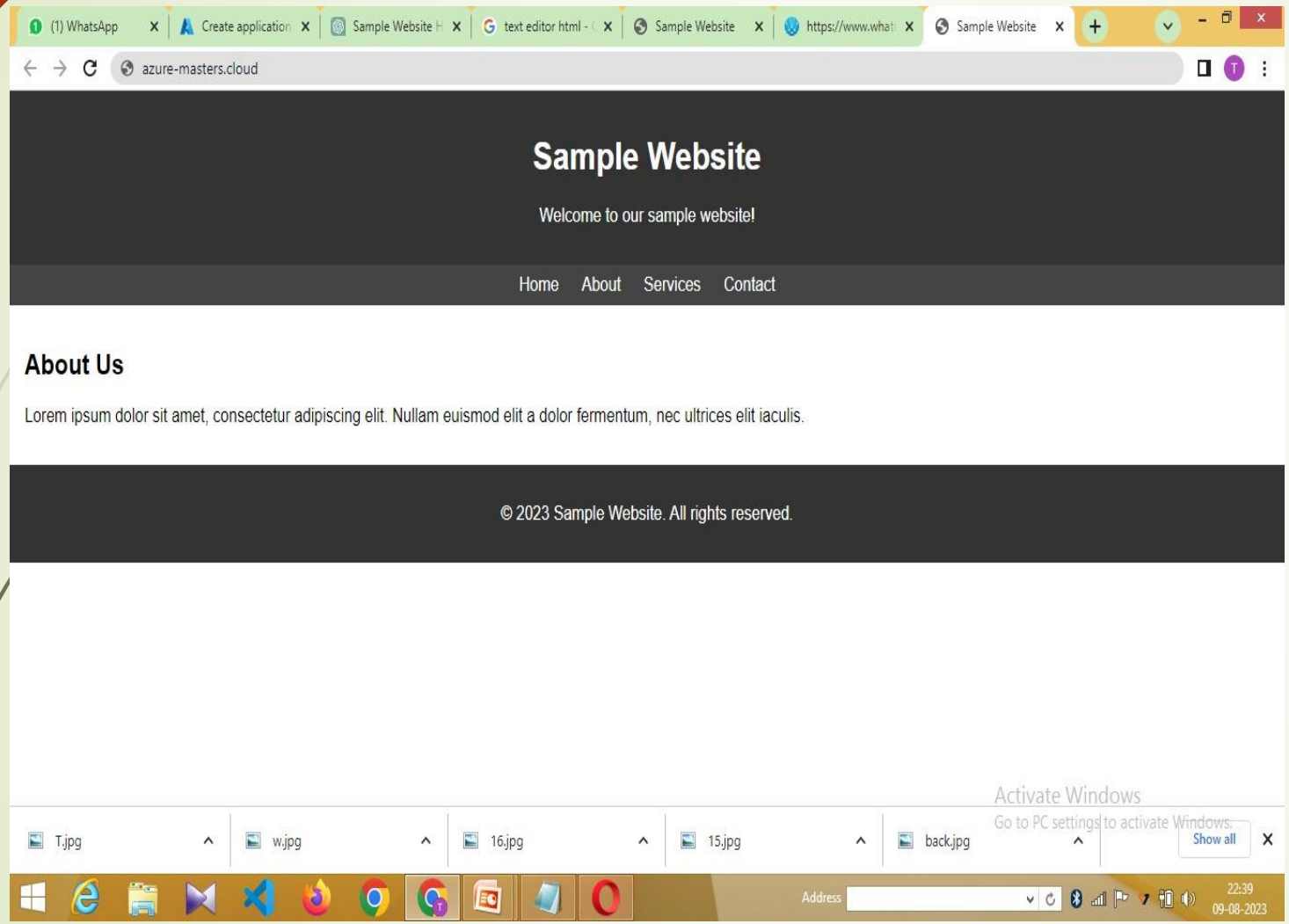

SUBHAM SANKAR LENKA_21BCSE88 (1) - Microsoft PowerPoint
Home
Insert
Design
Animations
Slide Show
Review
View
Acrobat
Slides
Outline
9.bind-address and mysqlx-bind-address are commented out in the /etc/mysql/mysql.conf.d/mysqld.cnf file.
root@db-server: ~
The MySQL database server configuration file.
One can use all long options that the program supports.
Run program with --help to get a list of available options and with
--print-defaults to see which it would actually understand and use.
For explanations see
http://dev.mysql.com/doc/mysql/en/server-system-variables.html
Here is entries for some specific programs
The following values assume you have at least 32M ram
[mysqld]
# * Basic Settings
user = mysql
# pid-file = /var/run/mysqld/mysqld.pid
# socket = /var/run/mysqld/mysqld.sock
# port = 3306
# datadir = /var/lib/mysql
# If MySQL is running as a replication slave, this should be
# changed. Ref https://dev.mysql.com/doc/refman/8.0/en/server-system-variables.html#sysvar_tmpdir
# tmpdir = /tmp
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
#bind-address = 127.0.0.1
#mysqlx-bind-address = 127.0.0.1
# * Fine Tuning
key_buffer_size = 16M
# max_allowed_packet = 64M
# thread_stack = 256K
-- INSERT --
32,2 Top
Activate Windows
Go to PC settings to activate Windows.
Slide 16 of 24
"Office Theme"
English (India)
73%
Address
22:22
09-08-2023


SUBHAM SANKAR LENKA_21BCSE88 (1) - Microsoft PowerPoint
Drawing Tools
Home
Insert
Design
Animations
Slide Show
Review
View
Acrobat
Format
Slides
Outline
12.I can see the database that I've created inside web-server-2 is also there inside the db-server.
root@db-server:~# mysql
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 31
Server version: 8.0.33-0ubuntu0.20.04.4 (Ubuntu)
Copyright (c) 2000, 2023, Oracle and/or its affiliates.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> show databases;
| Database |
| database1 |
| information_schema |
| mysql |
| performance_schema |
| sys |
5 rows in set (0.00 sec)
mysql>
Activate Windows
Go to PC settings to activate Windows.
Slide 19 of 24
"Office Theme"
English (India)
73%
Address
22:32
09-08-2023


(1) WhatsApp
Create application
Sample Website H
text editor html -
Sample Website
https://www.what
Sample Website
azure-masters.cloud
Sample Website
Welcome to our sample website!
Home
About
Services
Contact
About Us
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© 2023 Sample Website. All rights reserved.
Activate Windows
Go to PC settings to activate Windows.
T.jpg
w.jpg
16.jpg
15.jpg
back.jpg
Show all
Address
22:39
09-08-2023

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CONCLUSION

I would like to thank Silicon Institute of Technology,Bhubaneswar to give me this opportunity learn about Azures Masters Deployment course in Microsoft.
This Internship Program has helped me a lot in setting my first step towards learning cloud computing.

I also want to thank my mentors sumit shah sir and Nitish sir and Ingenious tech world , under which I did my internship program their teaching style helped in learning everything easy.

This program has helped me understand how websites gets deployed and work and how the front-end and back-end works all together. The understanding of databases added makes the program much more interesting.