

**PROJECT REPORT**  
**ON**  
**DEMONSTRATION OF 4 CLOUD SERVICES**

**IN**

**Cloud Computing and Analytics**

**BY**

**Shreya Mahalle - 371036 / 22110637**

**Sayee Panchal - 371041 / 22110420**

**Atharva Pandit - 371042 / 22110449**

**Parag Tonpe - 371044 / 22110305**



**Class: ThirdYear**

**Division: A**

**Batch: A2**

**Batch Teacher**  
**Prof. - Santosh Kumar**

## **INDEX**

<b>Sr. No.</b>	<b>Contents</b>	<b>Page No.</b>
<b>1</b>	<b>ABSTRACT</b>	<b>1</b>
<b>2</b>	<b>INTRODUCTION</b>	<b>2</b>
<b>3</b>	<b>MOTIVATION</b>	<b>3 - 4</b>
<b>5</b>	<b>SYSTEM REQUIREMENTS</b> <b>5.1 HARDWARE REQUIREMENTS</b> <b>5.2 SOFTWARE REQUIREMENTS</b>	<b>6</b>
<b>6</b>	<b>DEMONSTRATION OF SERVICES</b> <b>6.1 AZURE VIRTUAL MACHINES</b> <b>6.2 AZURE TRANSLATE</b> <b>6.3 AZURE SQL DATABASE</b> <b>6.4 AZURE BLOB</b>	<b>6 - 12</b>
<b>7</b>	<b>OUTPUT</b>	<b>12 - 15</b>
<b>10</b>	<b>CONCLUSION</b>	<b>16</b>
<b>11</b>	<b>BIBLIOGRAPHY</b>	<b>17</b>

## ABSTRACT:

The Cloud Services Demonstration presents a comprehensive showcase of Azure's powerful capabilities, featuring the seamless integration of four key services: Azure Translate, Virtual Machine, Blob Storage, and SQL Database.

1. **Azure Translate:** This segment demonstrates the real-time language translation prowess of Azure Translate, showcasing its critical role in enabling multilingual support within applications. The service ensures fluid communication across diverse language preferences.
2. **Virtual Machine:** The demonstration underscores the deployment and management aspects of Azure Virtual Machine, emphasizing its ability to provide scalable compute resources in the cloud. This ensures optimal performance and adaptability for a spectrum of workloads, enhancing overall operational efficiency.
3. **Blob Storage:** The showcase delves into the efficiency of Azure Blob Storage, elucidating its capacity for storing and retrieving unstructured data. As a versatile and scalable solution, Blob Storage proves instrumental in addressing diverse data storage requirements, emphasizing reliability and performance.
4. **SQL Database:** This segment highlights the prowess of Azure SQL Database, a fully managed relational database service. It ensures data integrity, security, and scalability for applications with relational database needs, showcasing its significance in managing structured data seamlessly.

The demonstration underscores the collective potential and interoperability of these Azure services. By harmoniously integrating Azure Translate, Virtual Machine, Blob Storage, and SQL Database, the showcase provides a foundation for building scalable, efficient, and robust cloud-based solutions. It reflects the synergy achieved by leveraging these services in tandem, offering a glimpse into the innovative and transformative capabilities of Azure in addressing complex real-world challenges.

## **INTRODUCTION :**

The contemporary digital landscape is undergoing a paradigm shift, with cloud computing emerging as the cornerstone of transformative technological solutions. In this report, we delve into the intricate realm of cloud services, specifically focusing on the "Demonstration of 4 Cloud Services." This comprehensive exploration unfolds the intricate tapestry of Azure's cutting-edge offerings, presenting a detailed showcase of Azure Translate, Virtual Machine, Blob Storage, and SQL Database.

Cloud services have revolutionized the way organizations approach computing, providing unprecedented scalability, flexibility, and accessibility. As businesses and enterprises increasingly migrate to the cloud, understanding the practical implementation of key services becomes imperative. This report serves as an invaluable guide, offering an in-depth analysis and demonstration of how these four Azure services synergize to create a robust and versatile cloud computing environment.

### **1. Azure Translate: Multilingual Prowess Unleashed**

Our journey begins with Azure Translate, an exemplar of real-time language translation capabilities. In a globalized world, the ability to seamlessly communicate across language barriers is a strategic advantage. The demonstration unveils Azure Translate's role in facilitating multilingual support, showcasing its application in breaking down linguistic silos and fostering inclusive digital experiences.

### **2. Virtual Machine: Powering Scalable Computing Resources**

Azure Virtual Machine takes center stage, illustrating the deployment and management of scalable compute resources in the cloud. The dynamic nature of modern workloads demands flexibility and efficiency. This segment explores how Virtual Machine fulfills these requirements, ensuring optimal performance and adaptability for a spectrum of computing needs.

### **3. Blob Storage: Versatility in Unstructured Data Management**

Next in our showcase is Azure Blob Storage, a cornerstone in efficient unstructured data management. In the era of big data, the ability to store and retrieve diverse data types seamlessly is paramount. The demonstration unveils Blob Storage's capacity to address

these requirements, providing a reliable and scalable solution for organizations grappling with the complexities of modern data management.

#### **4. SQL Database: Relational Powerhouse in the Cloud**

The report then navigates through the capabilities of Azure SQL Database, a fully managed relational database service. As organizations increasingly rely on structured data for critical decision-making, this segment underscores the significance of SQL Database in ensuring data integrity, security, and scalability. It exemplifies the seamless integration of relational databases into the cloud ecosystem.

### **MOTIVATION :**

In an era defined by digital transformation, cloud computing stands as a pivotal force reshaping the technological landscape. The motivation behind this report on the "Demonstration of 4 Cloud Services" stems from the profound impact that cloud technologies have on the way organizations innovate, scale, and deliver services in today's interconnected world.

#### **1. Rapid Evolution of Cloud Technologies:**

The field of cloud computing is marked by its dynamic evolution. New services, capabilities, and integrations constantly emerge, offering organizations unprecedented opportunities to enhance efficiency and drive innovation. This report seeks to capture the zeitgeist of this evolution, providing insights into the latest advancements through a practical demonstration of four key Azure cloud services.

#### **2. Increasing Adoption of Cloud Solutions:**

As businesses across industries increasingly migrate to the cloud, understanding the practical implementation of cloud services becomes paramount. The motivation behind this report is to offer a tangible exploration of cloud services that goes beyond theoretical discussions. By showcasing the real-world application of Azure Translate, Virtual Machine, Blob Storage, and SQL Database, this report aims to bridge the gap between conceptual knowledge and hands-on implementation.

#### **3. Strategic Importance for Organizations:**

Cloud services are no longer just technological tools; they have become strategic assets for organizations seeking competitive advantages. The report is motivated by the

recognition that a deep understanding of cloud services is essential for decision-makers, IT professionals, and technologists alike. By elucidating the practical aspects of these four services, this report empowers stakeholders to make informed choices in their cloud adoption journey.

#### **4. Addressing Real-World Challenges:**

In today's fast-paced and competitive environment, organizations face multifaceted challenges. This report is motivated by the desire to provide practical solutions to these challenges. Whether it's about breaking language barriers, optimizing compute resources, managing diverse data types, or ensuring robust relational database capabilities, the demonstration of these cloud services addresses real-world scenarios and offers tangible solutions.

#### **5. Educational and Professional Development:**

For students, educators, and professionals, staying abreast of cloud technologies is essential for academic and career development. This report is motivated by the goal of serving as an educational resource, offering a hands-on exploration that enriches the understanding of cloud services. It provides a foundation for learning, experimentation, and skill development in the rapidly evolving field of cloud computing.

In conclusion, the motivation behind this report is rooted in the transformative potential of cloud technologies and the desire to empower individuals and organizations with actionable insights. By showcasing the practical application of Azure Translate, Virtual Machine, Blob Storage, and SQL Database, this report aspires to contribute to the ongoing discourse on cloud computing, enabling informed decision-making and fostering continuous innovation.

## SYSTEM REQUIREMENT :

To smoothly execute the demonstrations of these 4 cloud services, please ensure your device meets the following hardware and software requirements:

### Hardware Requirements:

A normal everyday laptop

**Processor:** Modern dual-core processor or better, preferably quad-core with 3.0 GHz or faster for optimal performance.

**Memory (RAM):** Minimum of 4 GB, with 8 GB or more recommended for smoother multitasking and handling resource-intensive tasks.

**Storage:** At least 100 GB of available disk space.

**Network:** Reliable internet connection with a minimum speed of 10 Mbps, preferably a high-speed connection of 100 Mbps or higher for efficient data transfer and seamless interactions with cloud services.

### Software Requirements:

**Operating System:** Windows 10 or later, macOS Mojave or later, or Linux Ubuntu 18.04 or later.

**Web Browser:** Chrome, Firefox, Safari, or Edge

**Azure Account:** A free or paid Azure account with access to the services.

### Additional Requirements:

**Basic Cloud Computing Knowledge:** A general understanding of cloud computing principles and services will greatly enhance your comprehension of the demonstrations.

**Azure Portal Familiarity:** Experience with navigating and using the Azure portal will facilitate your interactions with the cloud services.

**Technical Skills (for complex scenarios):** Some technical skills, such as scripting, command-line interface (CLI) usage, and basic programming knowledge, may be beneficial for more advanced demonstrations.

Ensure you meet these requirements to fully engage in the demonstrations and explore the capabilities of these Azure cloud services effectively.

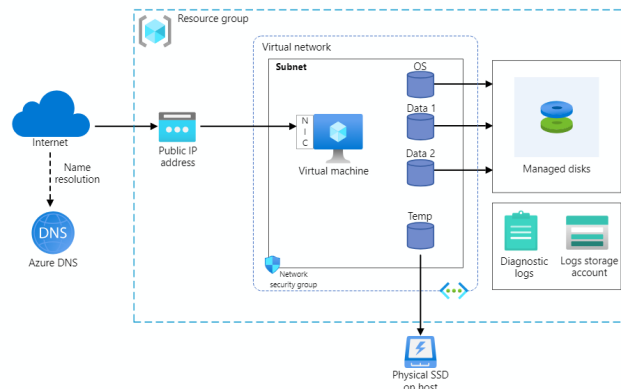
## DEMONSTRATION OF AZURE SERVICES :

## 1. Azure Virtual Machines :

### Scenario:

In the dynamic landscape of web hosting, the scenario for this demonstration revolves around the imperative need for hosting a web server application with characteristics demanding on-demand scalability and efficient resource management. This scenario reflects real-world situations where organizations face varying workloads and necessitate a flexible infrastructure to meet these demands effectively.

## Architecture :



The architecture showcases the seamless integration of Azure Virtual Machines into the broader Azure infrastructure, highlighting key elements such as virtual networks, storage accounts, and load balancers. This visual representation underscores the platform's capability to provide scalable and resilient compute resources.

### Demonstration:

The demonstration is designed to provide a comprehensive overview of the key features inherent to Azure Virtual Machines. Emphasis is placed on showcasing the platform's capacity for remote access, exemplifying the flexibility and accessibility that cloud-based infrastructure offers. Furthermore, the demonstration underscores the platform's innate scalability, illustrating how additional resources can be swiftly allocated to the virtual machine to accommodate heightened demand. The quick deployment times serve as a practical testament to the agility and efficiency that Azure Virtual Machines bring to the provisioning and management of computing resources.



### **Benefits:**

- **Increased Flexibility:**

Azure Virtual Machines deliver unparalleled flexibility by allowing organizations to scale computing resources on-demand. This adaptability ensures optimal performance even in the face of fluctuating workloads, providing a dynamic solution for evolving business needs.

- **Reduced Infrastructure Management Overhead:**

The cloud-based architecture of virtual machines significantly diminishes the burden of infrastructure management. Organizations can redirect their focus from the intricacies of hardware maintenance to more strategic endeavors, such as application development and innovation.

### **Limitations:**

- **Potential Cost Increases:**

While Azure Virtual Machines offer scalability, organizations must be mindful of the potential for increased costs as resources are scaled up. A careful and vigilant approach to monitoring and optimizing resource allocation is imperative to balance scalability with cost efficiency.

- **Security Considerations:**

The inherent nature of cloud services necessitates robust security measures. For Azure Virtual Machines, this involves implementing thorough access controls and configuration management to ensure the integrity and security of hosted applications and sensitive data. A comprehensive security strategy is crucial to mitigate potential vulnerabilities associated with cloud-based hosting.

## **2. Azure Translate :**

### **Scenario:**

In an era of global connectivity, the scenario for this demonstration revolves around the critical task of translating a document from English to Spanish, catering to a diverse and international audience. This scenario reflects the increasing need for seamless language translation capabilities to foster effective communication across linguistic barriers.

### **Demonstration:**

The demonstration is crafted to showcase the practical application of Azure Translate in facilitating the language translation scenario. By integrating the Azure Translate API into

the system, the demonstration illustrates how organizations can seamlessly incorporate translation functionality. The focus is on exhibiting the accuracy and fluency of translations, ensuring the conveyed message retains its meaning and relevance in the target language.

### **Benefits:**

- **Global Market Access:**

Azure Translate opens doors to global markets by breaking down language barriers. Organizations can communicate with a broader audience, facilitating increased access and engagement on a global scale.

- **Improved User Experience:**

By providing content in users' preferred languages, Azure Translate contributes to an enhanced user experience. Users feel more connected and included when information is presented in a language familiar to them, fostering positive interactions.

- **Enhanced Communication:**

The service ensures accurate and meaningful communication across diverse linguistic backgrounds. This is particularly crucial for organizations conveying critical information to a global audience, where precision in translation is paramount.

### **Limitations:**

- **Nuanced Errors in Complex Translations:**

While Azure Translate is a powerful tool, it may encounter challenges in accurately capturing nuanced or context-dependent content. Users should be aware of potential errors, especially in translations involving cultural or idiomatic nuances.

- **Cost Considerations for Large Volumes:**

Organizations need to consider cost implications, particularly when dealing with large volumes of text translation. The usage costs associated with Azure Translate should be carefully assessed against the value derived from reaching a broader audience through multilingual content.

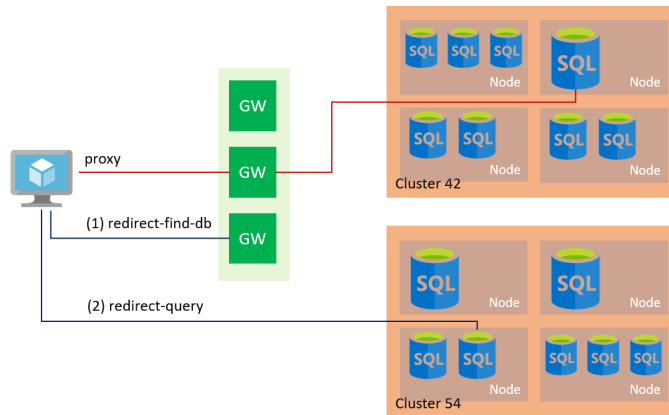
## **3. Azure SQL Database:**

### **Scenario:**

The scenario for this demonstration revolves around the need for a robust and scalable relational database solution. In a practical application, this involves utilizing Azure SQL Database to manage and organize structured data efficiently. The scenario may include

scenarios such as managing customer information, transactions, or other business-critical data.

## Architecture:



The diagram highlights key components such as databases, servers, and security features, showcasing the seamless integration of Azure SQL Database into a cloud-native infrastructure. The architecture illustrates the service's ability to handle relational data with scalability, reliability, and built-in security measures.

## Demonstration:

The demonstration focuses on configuring and managing Azure SQL Database for the specified scenario. Key aspects include creating a database, defining schema, and implementing security measures. The demonstration showcases the service's capabilities in ensuring data integrity, providing scalable storage, and facilitating efficient querying and management of relational data.

## Benefits:

- **Data Integrity and Security:**

Azure SQL Database ensures robust data integrity and security measures, offering features such as encryption, authentication, and access controls. This is crucial for organizations handling sensitive and business-critical data.

- **Scalability:**

The service allows for seamless scalability, enabling organizations to adapt to changing data requirements. Whether handling small-scale databases or large enterprise-level datasets, Azure SQL Database provides flexibility to scale resources accordingly.

- **Managed Service:**

Azure SQL Database is a fully managed service, alleviating the burden of database administration tasks. This enables organizations to focus on leveraging data for business insights rather than managing infrastructure.

### **Limitations:**

#### **Cost Considerations for Performance Levels:**

Higher performance levels in terms of processing power and storage may result in increased costs. Organizations need to carefully assess performance requirements against budget constraints for optimal resource allocation.

#### **Complexity of Advanced Query Optimization:**

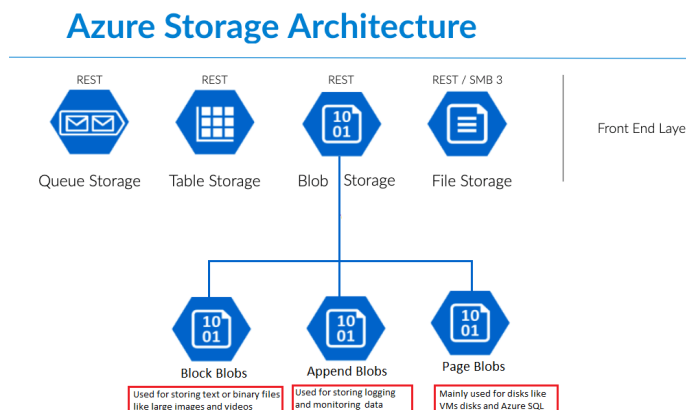
While the service provides advanced query optimization features, complex queries may require fine-tuning for optimal performance. Organizations should be prepared to invest time in query optimization for intricate data retrieval scenarios.

## **4. Azure Blob Storage:**

### **Scenario:**

In a scenario highlighting Azure Blob Storage, the focus is on efficiently managing unstructured data. This could involve storing and retrieving media files, documents, or any form of unstructured content, catering to the need for a scalable and durable storage solution.

### **Architecture:**



The architecture illustrates the various components such as containers, blobs, and access controls, showcasing how Azure Blob Storage seamlessly integrates into the broader Azure storage infrastructure. This architecture highlights the service's capability to handle

diverse data types at scale with features like tiered storage and global redundancy.

## **Demonstration:**

The demonstration entails showcasing the practical application of Azure Blob Storage by configuring storage accounts, creating containers, and uploading various types of unstructured data. Key features demonstrated include the service's ability to handle large volumes of data, provide accessibility controls, and support tiered storage for cost optimization.

## **Benefits:**

- **Scalable Storage for Unstructured Data:**

Azure Blob Storage offers scalable and flexible storage, making it ideal for managing unstructured data of varying sizes. Organizations can seamlessly scale storage capacity based on their evolving data needs.

- **Redundancy and Durability:**

The service provides redundancy options and durable storage, ensuring data availability and integrity. With features like geo-redundant storage, organizations can safeguard their data against unexpected outages or disasters.

- **Cost-Effective Tiered Storage:**

Azure Blob Storage offers cost-effective tiered storage options. Organizations can optimize costs by selecting the appropriate storage tier based on the access frequency and retrieval requirements of their data.

## **Limitations:**

- **Access Latency for Infrequently Accessed Data:**

While tiered storage provides cost benefits, infrequently accessed data stored in lower tiers may experience increased access latency. Organizations should align storage tier choices with data access patterns.

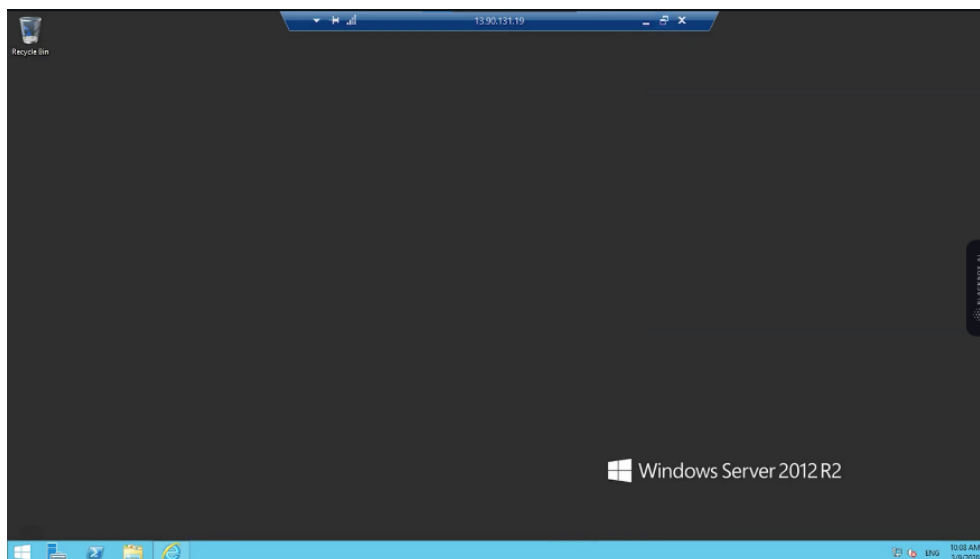
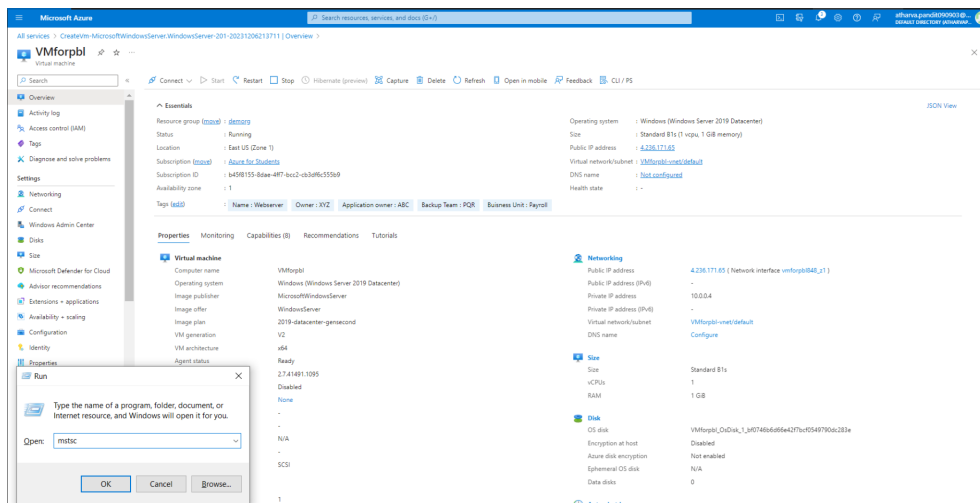
- **Data Egress Costs:**

Transferring data out of Azure Blob Storage to external networks or regions may incur egress costs. Organizations should be mindful of potential costs associated with data movement between storage and external locations.

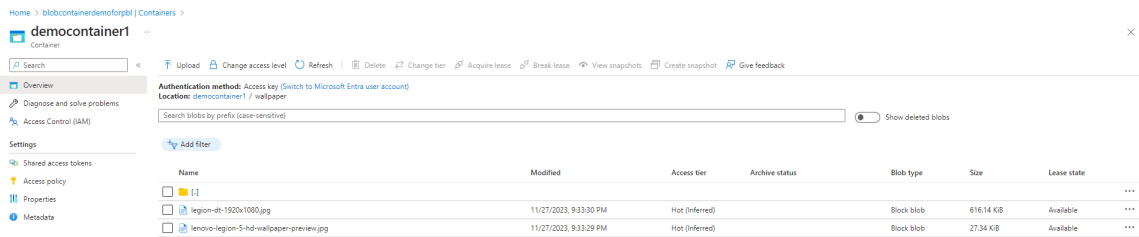
## OUTPUT:

### Screenshots

- **Azure Virtual Machine :**



## ● Azure Blob :



democontainer1

Authentication method: Access key (Switch to Microsoft Entra user account)

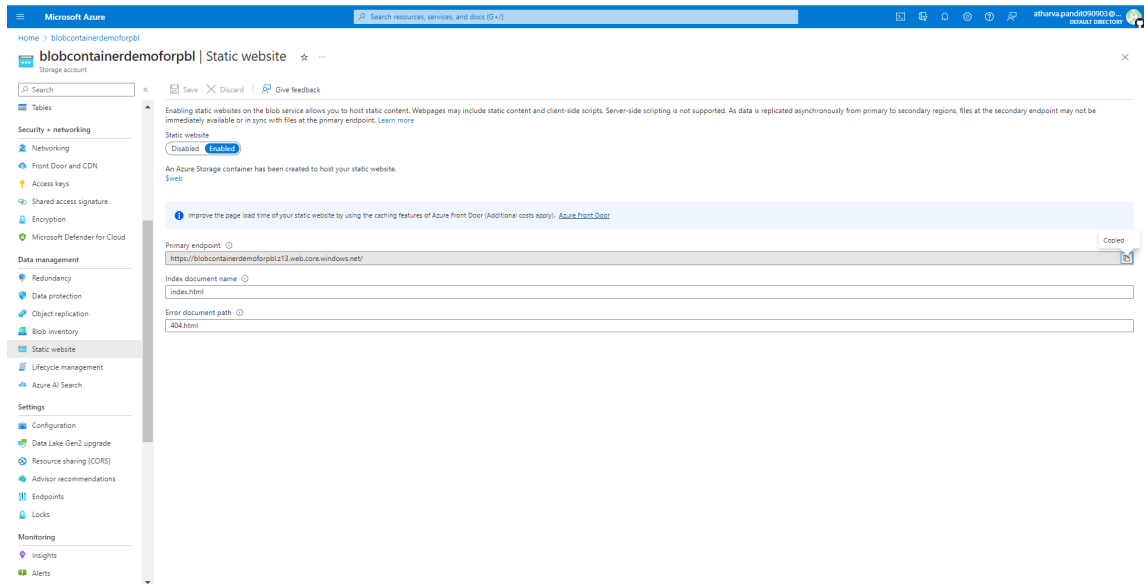
Location: democontainer1 / wallpaper

Search blobs by prefix (case-sensitive)

Show deleted blobs

Name	Modified	Access tier	Archive status	Blob type	Size	Lease state
legion-dt-1920x1080.jpg	11/27/2023, 9:33:30 PM	Hot (Inferred)		Block blob	616.14 KiB	Available
lenovo-legion-5-hd-wallpaper-preview.jpg	11/27/2023, 9:33:29 PM	Hot (Inferred)		Block blob	27.34 KiB	Available

## ● Static Website Hosting :



Static website

Enabled

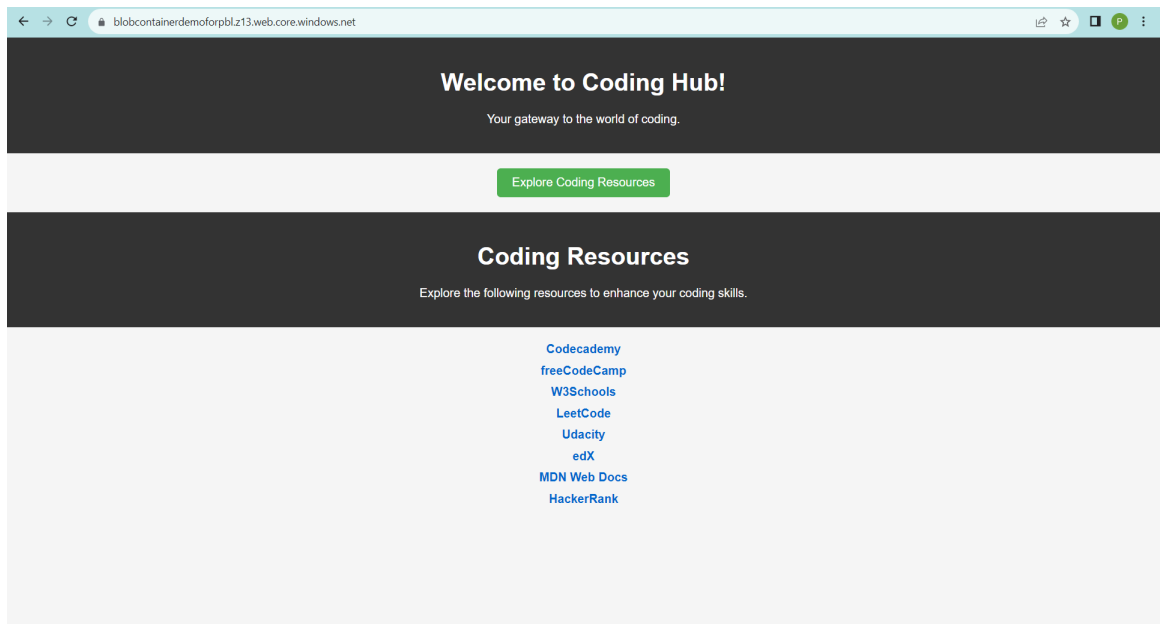
An Azure Storage container has been created to host your static website.

Improve the page load time of your static website by using the caching features of Azure Front Door (Additional costs apply). [Azure Front Door](#)

Primary endpoint: <https://blobcontainerdemo1z13.web.core.windows.net/>

Index document name: index.html

Error document path: 404.html



Welcome to Coding Hub!

Your gateway to the world of coding.

Explore Coding Resources

Coding Resources

Explore the following resources to enhance your coding skills.

- Codecademy
- freeCodeCamp
- W3Schools
- LeetCode
- Udacity
- edX
- MDN Web Docs
- HackerRank

## ● Azure SQL :

The screenshot shows the Azure portal interface for an SQL database named 'myNewDatabase (sql databasedemoforpb1/myNewDatabase)'. The left sidebar contains navigation options like Overview, Activity log, Tags, Diagnose and solve problems, Query editor (preview), Settings, Compute + storage, Connection strings, Properties, Locks, Data management, Replicas, Sync to other databases, Integrations, and Power Platform. The main area displays the 'Essentials' section with details such as Resource group (demo), Status (Online), Location (East US), Subscription ID, and Tags. A 'Getting started' section at the bottom provides instructions on how to connect to the database.

The screenshot shows the Azure portal interface for the 'myNewDatabase (sql databasedemoforpb1/myNewDatabase)' Query editor (preview). The left sidebar contains navigation options like Overview, Activity log, Tags, Diagnose and solve problems, Query editor (preview), Settings, Compute + storage, Connection strings, Properties, Locks, Data management, Replicas, Sync to other databases, Integrations, and Power Platform. The main area displays the 'Query editor (preview)' section with a query that creates a table named 'SampleTable' and inserts data into it. The query is executed successfully, and the results are displayed in a table with columns ID, Name, and Age.

ID	Name	Age
1	John Doe	25
2	Jane Smith	30
3	Bob Johnson	22



## ● Azure Translate :

Microsoft Azure

Search resources, services, and docs (0+)

All services > Azure AI services | Translator >

### Create Translator

Changes on this step may reset later selections you have made. Review all options prior to deployment.

Basics Network Identity Tags Review + create

Easily integrate real-time text translation capabilities into your application's websites, tools, or any solution requiring multi-language support such as website localization, e-commerce, customer support, messaging applications, internal communication, and more.

**Project Details**

Subscription \*

Resource group \*  [Create new](#)

**Instance Details**

Please choose the Global region unless your business or application requires a specific region. Applications that do not offer a region selection use the Global region.

Region \*

Name \*

Pricing tier \*  [View full pricing details](#)

[Previous](#) [Next](#) [Review + create](#)

[Give feedback](#)

Submitting deployment...  
Submitting the deployment template for resource group 'demorg'.

Microsoft Azure

Search resources, services, and docs (0+)

All services > Microsoft.CognitiveServicesTextTranslation-20231207105201 | Overview >

### Translatorforpbl

Translator

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Resource Management Keys and Endpoint Encryption Pricing tier Networking Cost analysis Properties Locks Monitoring Alerts Metrics Diagnostic settings Logs Automation Tasks (preview) Export template Help Resource health Support + Troubleshooting

**Essentials**

Resource group [demorg](#)

Status [Active](#)

Location [Global](#)

Subscription [demorg](#) [Azure for Students](#)

Subscription ID [b49b155-8dae-4b7f-bc22-cb3b6c33b9](#)

Tags [Add tags](#)

API Kind [TextTranslation](#)

Pricing tier [Free](#)

Endpoints [Click here to view endpoints](#)

Manage keys [Click here to manage keys](#)

**Try it** Sample code Monitoring

Translate text to another language [Learn more about Translator](#)

This demo runs against your resource and will incur usage against your account.

From

To

**View request**

```
{
  "text": "Hello how are you?"
}
```

**View response**

```
{
  "detectedLanguage": {
    "language": "en",
    "score": "0.95"
  },
  "translations": [
    {
      "text": "नमस्कार कसे आहात?",
      "to": "mr"
    }
  ]
}
```

## CONCLUSION :

- The "Demonstration of Azure Services" report has illuminated the transformative potential of key Azure offerings in addressing contemporary challenges faced by organizations in the digital era. As businesses increasingly pivot towards cloud-based solutions, the showcased services - Azure Translate, Virtual Machines, SQL Database, and Blob Storage - stand out as integral components of a robust and scalable cloud ecosystem.
- Azure Translate showcased its capability to bridge linguistic divides, offering organizations a powerful tool for global communication. The demonstrated benefits of increased market access and improved user experience underscore its significance, while considerations for nuanced errors and cost implications emphasize the need for strategic implementation.
- Azure Virtual Machines emerged as a linchpin in dynamic web hosting, illustrating on-demand scalability and flexibility. The demonstrated benefits of reduced infrastructure management overhead and remote accessibility showcase its efficiency, yet organizations must balance these advantages with potential cost increases and stringent security measures.
- Azure SQL Database exemplified its prowess in managing structured data, emphasizing data integrity, scalability, and a managed service approach. The benefits showcased, paired with considerations for cost management and query optimization, position it as a reliable choice for organizations navigating relational database requirements.
- Azure Blob Storage proved its versatility in efficiently managing unstructured data, offering scalable and cost-effective solutions. The demonstrated benefits of scalable storage and redundancy underscore its importance, with attention required for potential access latency and data egress costs.
- In conclusion, the demonstrated Azure services collectively embody the agility, scalability, and efficiency required for organizations to thrive in a digital landscape. However, successful adoption necessitates a nuanced understanding of each service's benefits and limitations. As organizations embark on their cloud journey, strategic integration of Azure services can empower them to navigate evolving challenges, fostering innovation, global connectivity, and streamlined operations. The demonstrated services serve as a testament to Azure's commitment to providing comprehensive and transformative solutions for the diverse needs of the modern business landscape.

## **BIBLIOGRAPHY :**

**We have referred to the following sites :**

### **Azure Translate:**

Microsoft Azure Translate documentation:

<https://learn.microsoft.com/en-us/azure/ai-services/translator/document-translation/quickstarts/document-translation-rest-api>

Azure Cognitive Services Blog:

<https://techcommunity.microsoft.com/t5/ai-azure-ai-services/bd-p/Azure-AI-Services>

### **Azure Virtual Machines:**

Microsoft Azure Virtual Machines documentation:

<https://learn.microsoft.com/en-us/training/modules/create-windows-virtual-machine-in-azure/>

Azure Virtual Machines Blog: <https://azure.microsoft.com/en-us/blog/tag/virtual-machines/>

### **Azure Blob Storage:**

Microsoft Azure Blob Storage documentation:

<https://learn.microsoft.com/en-us/azure/storage/blobs/>

Azure Storage Blog:

<https://techcommunity.microsoft.com/t5/azure-storage-blog/bg-p/AzureStorageBlog>

### **Azure SQL Database:**

Microsoft Azure SQL Database documentation:

<https://azure.microsoft.com/en-us/pricing/details/azure-sql-database/single/>

Azure SQL Database Blog:

<https://techcommunity.microsoft.com/t5/azure-sql-blog/bg-p/AzureSQLBlog>

### **Additional Resources:**

Azure documentation library: <https://learn.microsoft.com/en-us/azure/>

Microsoft Azure website: <https://azure.microsoft.com/en-us>

Cloud Computing Concepts:

<https://learn.microsoft.com/en-us/azure/azure-glossary-cloud-terminology>