



Good Morning Everyone

Welcome to Azure and Logic  
Apps Training

Start Time - 09:10 AM

Waiting for audience

**MANDATORY:** Please redeem  
the Courseware with

# Achievement and Courseware Link

Links are in the chat

Please use your personal  
Microsoft Account for signing in

Thank you for joining :)

## Agenda:

1. Cloud concepts and  
Introduction to Azure
2. Storage in Azure
3. Identity and Access  
Management

Deepanshu

Profiles or what does your work involve

Total experience

Any machine, your machine  
Windows/ Ubuntu

Not with us, it is located on a remote location

Cloud Server - Datacenter -

16 gb located in South India

Datacenter

Storage - 100 GB or 1 TB

Privacy - I Want to keep my data safe

Invoice management system -  
No access to anyone outside the organisation

Public - I can share with everyone

E-Commerce Website - I want it to be available for all the users over the country/globe

E-Commerce Website - Public -  
Across the globe

[amazon.in](https://www.amazon.in), flipkart

Manage this website -

Application: Private

- Creating promo codes;

- Uploading products

- Managing the users

Combination of public and private cloud - Hybrid Cloud

- E-Commerce website and Application to manage it

Cloud - No Capital Expenditure

- No upfront costing to buy server or machines

- Rent these services

# Operational Costs

10 Machine 16 gb RAM

Buy 10 laptops

or

Create these machines on azure

Use the services on rent

Scale from 10 to 20 Machines

E-Commerce Application:

I want my website to be  
available at all times

High Availability

10 Virtual Machine - all with the same e-commerce app

1 VM(16GB) - Application: 100 users -

If users increased to 10000 users

We will not be able to access-  
Crashing of app

Increase the RAM for VM  
Buy a new machines -

Load Balancing

Load Balancer



VM      VM      VM      VM  
VM      VM      VM

Request from user(clicking on an option on the website)

Goes to Load balancer

LB shares the request to a VM at random

Application:

1. Requirement Gathering - What I want to create
2. Database - Create a schema and a test record
  1. Create tables and fill test data

3. Application code - .Net, Python, PHP
4. Testing - Nothing untested reaches my website
5. Deployment - Making it available to the users

Available with azure:

Creating a database

Creating a compute for my  
App

a Secure App  
Deployment and  
testing

Agile - Step by step tracking or  
logging

Focus on the Application Code  
and Manage the app

I create my application: South India

1. There was a huge disaster in South India Datacenter
2. Outage in the datacenter -
3. VM with windows(os) starts updating -

Disaster Recovery - VM

Availability Set

Create 2 VM in same datacenter

What if the datacenter goes down

I will create 2 VMs in different datacenter

What if the whole zone  
Availability Zone

Regional Pair - Cloning the service at all times

Disaster across the region:  
Use the replica in regional pair

Inter change the replica to the VM not working

E-COMmerce APp:  
Promotion - Sale for products

I am expecting an increase in the users as soon as the sale starts

Fault tolerance – Making sure the app is available for all users

Users are increase 100 times –  
Manage the app

Scalibilty – Create multiple VM

Elasticity – Scalable storage

I create a storage – I will only pay for what I use:

10 GB data – Available for website

Increasing at a high rate – 2 GB per day

100 GB db

I Create a storage where I will pay for 10 gb but I can scale to 100 GB

Where my service is located:  
Latency - I will need Vmachines close to my users

User                      ->                      Website

Request 1                ->                      VM in  
South India

What if the Application is available in East US

Request 2                ->                      VM in  
East US

Will both take the same time to respond

I will make sure to create and deploy my app near my users

CSP - Microsoft Azure - 100+ countries

Security :

Physical Security - Where my machine is located

CSP or Azure is Responsible  
Data Security -

IAM + work with MFA +  
Secrets management +  
Shared Access Signature +  
Certificates

Application Security -  
Managing access to App  
Fighting any Unauthorised  
Users

Protection from virus  
DDoS attack -  
Distributed Denial Of Service  
Attack - Microsoft Defender  
1000 users on website  
100 users are real  
900 are bots or fake users

Create an Application: Compute:



## 1. Buy the servers

### 1. Responsible for Infrastructure

- Where is my server

### 2. 24/7 cooling - Server need cooling at all time

### 3. Spending a huge amount on server and infra

## 2. Rent the servers: CSP such as Microsoft Azure

For our servers/services on cloud

### 1. Networking - Managing the access to a service

- 1. It is available to all or a specified network

Virtual Machine - IaaS  
App Service, Azure SQL  
Database - PaaS  
Microsoft 365 - SaaS

Shoot an email to user on order  
confirmation

Code which will send an email  
text / Email otp on sign up

Logic -

Condition : Order confirmed

Action : Send an email

QF1EV58IEEVFODPT1K

1. Please open a PRIVATE / INCOGNITO window in your browser
2. Open <https://www.microsoftazurepas.com/>
3. Sign in with your personal Microsoft account
4. Confirm its your Microsoft account and click Confirm Microsoft account button
5. Use the code respective to

- your name in excel shared
6. Please fill details such as  
Organisation, name -  
SUBSCRIPTION
  7. You will be redirected to  
Azure Portal with an  
active subscription
- NOTE : DONOT CLOSE THE  
WINDOW

The subscription is active for :

1. 100 USD
2. 30 days

We get access to creating  
machine:

Some limits and checks on services:

We will not be creating a large (264 GB RAM)

Create a support request and get the quota increased

Whichever expires first

Disaster Recovery:

1 VM - Bound to go down for updates or any outages

Multiple VM in same datacenter

-

Disaster recovery from VM

failure

Multiple VM in different  
Datacenters-

Disaster recovery from  
Datacenter failure

All in same region - Availability  
Zones

Max 3 availability zone

Region Pair - Replication to  
another region

Disaster recovery from region  
level failure

400 miles between two region  
pairs

For accessing any service:

I type the url - Sending a

request to application server

Before server:

Virtual Network: Allowed no access but only 192.43.53.53

Multiple services - SA, VM, APP Service

Please fill the Microsoft Form for  
getting a Free Microsoft Azure  
Subscription

Link in the chat window



Please check out the Total Cost  
of Ownership Calculator

Link in chat window

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DAY 2

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Introduction to Cloud Computing  
and Microsoft Azure  
Services on Azure  
Activate a subscription on Azure

Resource Group

Create/Delete/Manage together

Group of organisation:  
E-Commerce and Media  
Platform Application

E-COMmerce:

Website - About the company

Application - Buy products

Media Platform:

Website - News and About the  
company

Application - News

4 Applications - 40+

A single website - subdomain  
Media and E-commerce

Now I need to delete 10+  
resources out of 40+ res

I forgot to delete 1 - I will pay  
till I delete

I deleted 1 wrong res - The  
other application stops  
working

Resource Group - Container  
which hold all my resources:

I want to create together

I want to keep together

I want to manage together

I want to delete together

Application: Virtual Machine ,  
Database, AI Service

10+ resources per application

6-7 resource - VM

REGION:

What will be the cost

What service is available

What size of compute is  
available

High Availability

Scalability

Disaster Recovery

VM might not suffice

Jan week 1 - VM

Feb week 1 - Deploy and launch  
the website

10 VMs – 5 VMs in the region

LOAD BALANCER

VM	VM	VM	VM
VM	VM	VM	

Start updating windows

OS patching

ACTIVE DIRECTORY:

Users

GROUP OF USERS

MANAGED IDENTITY

# RBAC - ROLE BASED ACCESS CONTROL

Please complete Storage  
Account Lab

Link in chat window

Thank you for joining :)

Active Directory

On Azure

On Premises

Microsoft 365

logicapp@anshu0105gmail.onm

icrosoft.com

Davu4820

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# DAY 3

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Create a Virtual Machine

Create and manage a storage  
account

Overview to Azure Active  
Directory

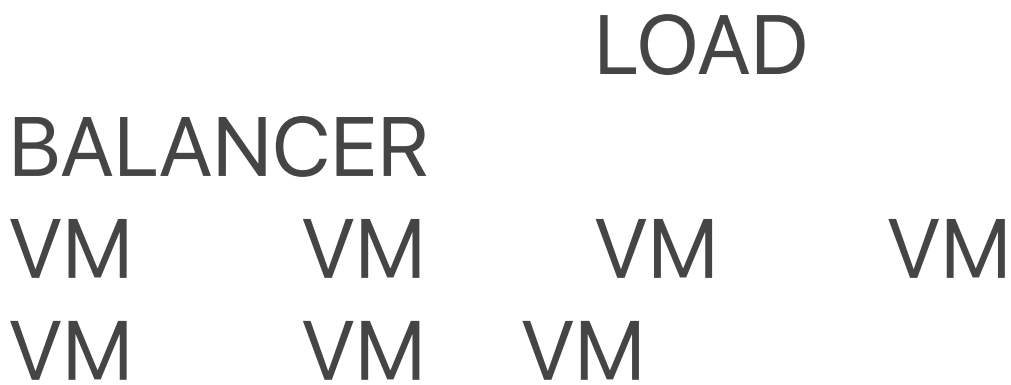
Resource Group - Container  
which hold all my resources:

I want to create together

I want to keep together

I want to manage together

I want to delete together



10 VM :

I will go to azure portal 10 times to create 10 VM

I will deploy 10 VMs with a single ARM Template

Application: VM

1. OS windows/linux
2. Installations for app - Java SDK, Tomcat,
3. Start coding and creating app
4. Deployment

If I take an image of the VM - VE  
for app and app itself

Container Image -

Azure Virtual Desktop - VM with

Multiple Sessions:

Remote working:

30 users - VM - 30 VM

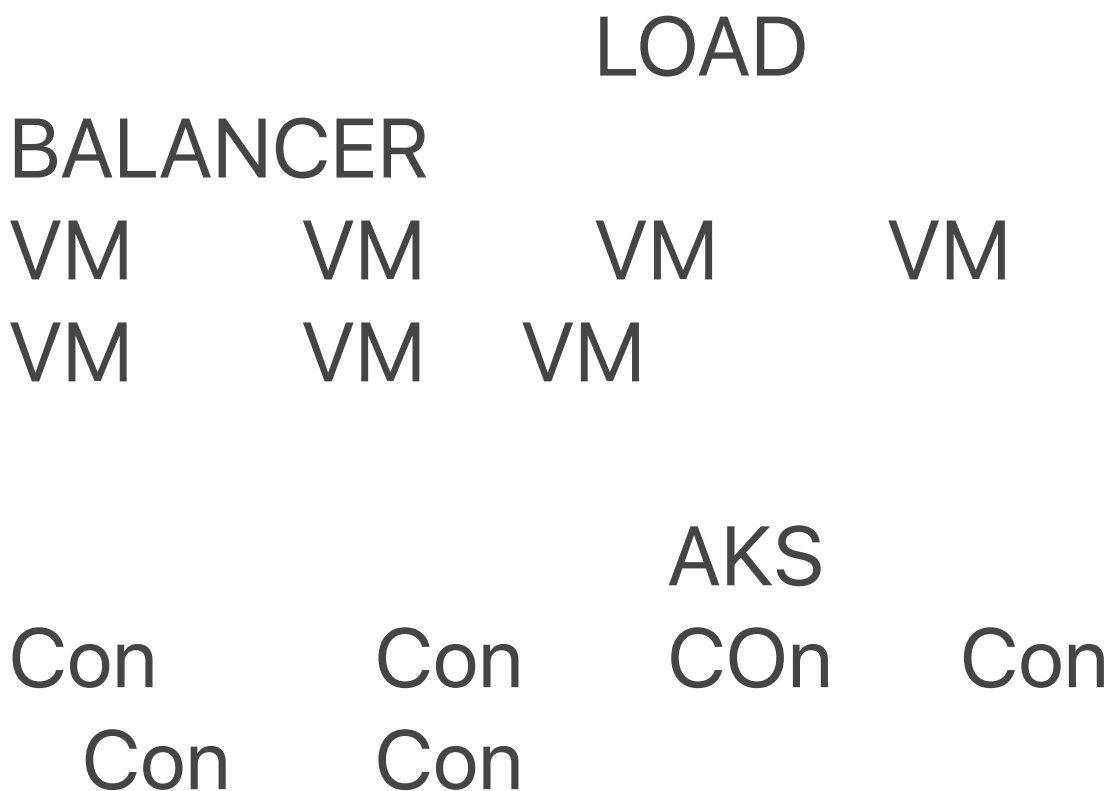
10 VM - 3 sessions on every  
Virtual Desktop

9 to 5 , 5 to 1 and 1 to 9

Reducing the pricing by 3 times

DAY 4 - VM with visual Studio

- Deploying a basic .Net project
- Create an App service



SQL Database

Managed Instance

Create multiple db

Create multiple database

Resources Will be shared

Separate compute

No cross db querying

cross db querying

SQL DB pool - Create multiple  
database

16GB Ram - All the databases

SQL Pool - 4 -

User DB

Products DB

Order DB  
Logs db

Please complete the lab for  
Azure SQL Database

Link in chat window

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DAY 4

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APPLICATION:

Sign Up- Login - Password  
3rd party integration - API  
keys, certificate  
Database - Connection string

Manage out secrets, certificates  
and keys

## Azure Key Vault

Once I save the secret, it will not be exposed.

## API key - Save on Key Vault

I can share the key with my team - the team can access the value with api but value will not be exposed

## Shuffling of keys:

Every key is deactivated and a new key.

Application: Social Media, E-Commerce, Media



# Flask at 5000

## Sign in page -

Text box for username and  
password

Submit button

### Authentication:

1. Fetch the username and password value and send to backend-logic
2. We will check and verify if the user exists and confirm password
3. If authentication is success, reply back with role

### Authorisation:

1. Based on the role, access is given

ROLE: Access to some admin permissions

NO Sign in

Example - I am creating an invoice management:

Organisation

Azure AD App Registration

[Deepanshu.com](https://deepanshu.com):

Sign in button on top

User is redirected to Microsoft login page

If user exists in Active Directory

1000 concurrent users

DDoS

900 users which are bots  
100 genuine users cannot  
access app

BREAK

Start Time - 11:25 AM

Please complete the lab for  
Azure App Service

Link in chat window

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DAY 5

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Security

Compliance

Governanace

Lab for App Service

Lab for policies

Please complete the Azure  
Container Instance and Azure  
CLI lab

Link in chat window

Thank you for joining

<https://learn.microsoft.com/en-us/training/paths/build-workflows-with-logic-apps/>

Application: VM  
Install all runtime  
Develop my app - Code

VM - running app

# Container

Creating an app - Pushing to  
docker hub

docker hub- centralised repo for  
all containers

Using docker hub registry to  
deploy my app

PaaS - Deploying my container/  
code/static web

VM - Application:

10 VM



VM VM VM VM VM  
VM VM VM

Create docker image - push to  
docker hub

10 containers with same image

Azure Kubernetes Service

IaaS - Deploy container image

PaaS- Deploy from container  
registry

BREAK

Start Time - 11:05 AM

Resource type:

SQL/COSMOS Database will  
cost more than a virtual machine

Data engineering cluster>>  
virtual machine >>Storage  
account

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DAY 6

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Please check out the Azure  
Logic App Video

Link in chat window

Sign In page - We want to send

an email to user

1st task

Action: send email with approval link to user

Trigger: Once user signs in

2nd task

Action: approval link answered  
- redirect

Trigger: Completes the approval from email

Built in operations:

send an email

Delete email

Receive email

# OUTLOOK

Connect outlook to use it:  
Connectors

RSS feed

Storage

Azure Key Vault - Security

Storage Account which has data  
to be sent to all employees

Storage account - Address  
where my data resides

## Cost:

1. Hybrid benefit : Use my own license
2. Reservations: Save upto 70% cost by paying upfront

## Performance Efficiency:

1. Scaling the resources
  - Scale compute
  - Scale storage

We have Elasticity - Storage - Automatic scaling

Max 100 GB      Mydata is only 10 GB  
I pay for only 10 GB

We have Scalability:

Scale compute - Serverless  
scenario:

Min Machines and Max  
machines(nodes)

1

10

Reliability:

1. Regional Pair - Replication in  
another region

2. Backup Resource with  
Storage account

Security:

Networking

Identity and Access  
Management- RBAC

## Activation Steps:

1. Please go to  
URL: [https://  
www.microsoftazurepass.co  
m](https://www.microsoftazurepass.com)
2. Sign In using your  
Personal Microsoft Email  
Accounts.
3. Use the Azure Pass  
code in the Promo Code Field  
and Click on Claim Promo  
Code.
4. You will be directed  
to [https://  
portal.azure.com](https://portal.azure.com) with an  
active Subscription.



Application:

VM - 192.35.74.67:5000

App Service -

[name.azurewebsites.net](#)

Logic App -

[name.azurewebsites.net](#)

We buy a domain name -

Providers: big rock, go daddy

Sending messages :

Twilio

Sendgrid

SMTP

Please complete all 4 logic app exercises

Link for all exercises in chat window

Thank you for joining

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## DAY 6

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Please complete the Logic app  
exercises

Link in chat window

Agenda:

1. Create an Approval based workflow
2. Deploy app service with visual studio
3. How to get started creating logic app with Visual Studio Code
4. Handle exceptions in logic apps
5. Sliding windows in logic Apps
6. All the PPTs and notes
7. Exercises for Azure Logic App

BREAK

Start Time - 11:10 AM

Subscribe-test-logic-app

## Logic Apps:

### 1. Schedule based App

1. It will trigger at a specified schedule

### 2. Approval Based App

1. We take an approval from user before an action

You get an email and based on

the email, you have to create another email to approve the content

Trigger – Receive an email

Action – After Approval –  
Sending a confirmation email

Visual Studio Community/  
Enterprise  
Publish settings

Application:

1. Requirement Gathering
2. Database schema
3. Creating app – start coding
4. Testing – Automate –

## Continuous Integration

### 5. Deploy to live - Automate - Continuous Deployment

Upload code to Github

A workflow is created -

Continuous Integration - test the  
app in workflow

Continuous Deployment -  
deploy the changes to live

Continuous Deployment -  
deploy the changes to live

Any changes to GitHub will  
create a workflow to deploy

# Visual Studio Community/ Enterprise

Publish settings - Use vis studio  
for ONE CLICK DEPLOYMENT

1. Create a basic project
2. Test the project by running on local server
3. Create a GitHub repo from visual studio
4. Publish the project to App service
5. Change deployment centre



settings

## 1. Activate Continuous Deployment

Deploy app service with visual studio

Visual Studio Code:

Extensions -

Azure

Sign in to azure

Azure functions

c#

.NET 6.0

Azure Functions Core Tools - 4.x version

Exception - I might not receive a response/different response than what I was expecting

Sign In page:

Username: anshu0011

Password: nsdhyaudgsa@323

SUBMIT

What if the user has given  
username as:  
anshu0011

anshu0011

ANSHU0011

Handle these scenarios:

- trim and try again

- lower case and try again

I provide a condition - action

- Message - username doesn't exists

Exception handling :

- Retry logic

- Handle corner case scenarios

## Handling Exceptions in Azure Logic Apps

### Retry policy in Azure Logic Apps

HTTPS - GET - 200 Success

408, 500, 202

Option to Handle corner case  
scenarios

Run after

Please fill the feedback

Link in chat window

