Placement Empowerment Program
Cloud Computing and DevOps Centre

Implement DNS for Your ApplicationSet up a DNS record to map your web application's IP or load balancer to a domain name.

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INTRODUCTION:

Introduction
In modern web applications, having a custom domain name improves accessibility, branding, and trustworthiness. Implementing DNS for your application ensures that users can reach your web application using a meaningful and easy-to-remember domain name instead of an IP address. This process involves setting up a DNS record to map your web application's IP address or load balancer to a domain name, either through Azure DNS or an external domain registrar.
Azure provides Azure DNS, a scalable and secure DNS hosting service that allows organizations to manage domain names within the Azure cloud environment. By correctly configuring DNS, users can seamlessly access the application using a custom domain while benefiting from Azure's global network.

Objectives:

The main objectives of this task are:
✅ Configure a DNS Zone in Azure to manage the domain.
✅ Map a domain name to the application's public IP address or Azure service (e.g., App Service, Load Balancer).
✅ Create necessary DNS records (A record, CNAME, or Alias) to route traffic correctly.
✅ Integrate with an external domain registrar (if applicable) by updating name servers.
✅ Verify DNS configuration to ensure the domain correctly resolves to the application.

Outcomes:

Upon completing this task, you will achieve the following:
🎯 Your application will be accessible via a custom domain name instead of an IP address.
🎯 Users will be able to access the application seamlessly using DNS resolution.
🎯 If using Azure DNS, all DNS management will be done within Azure for better integration and security.
🎯 If using an external DNS provider, records will be correctly mapped to point to Azure services.
🎯 The DNS configuration will be validated, ensuring successful domain resolution.

Step 1: Get Your Application's IP Address or Hostname

If using an Azure Load Balancer

Go to Azure Portal → Load Balancers.

Click on your Load Balancer → Frontend IP configuration.

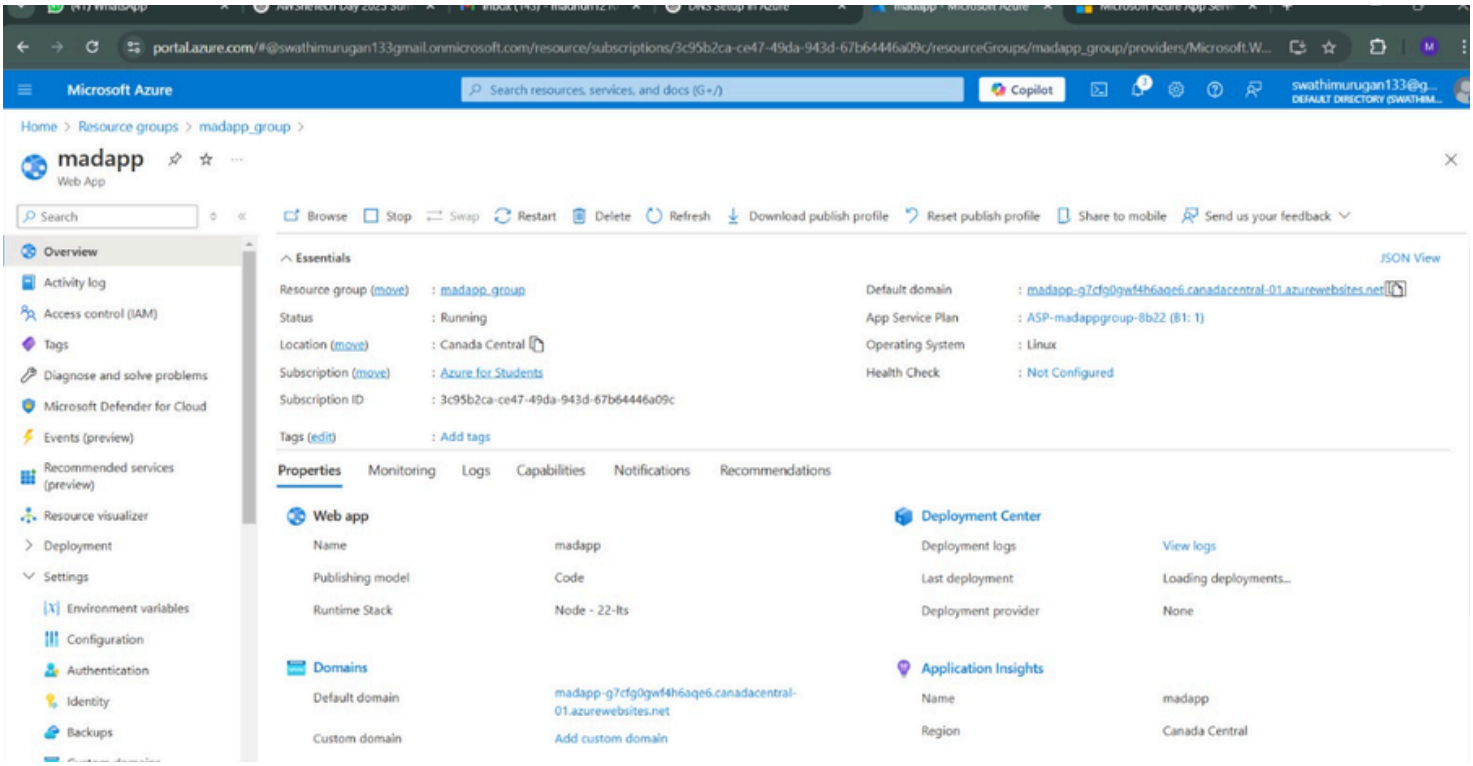
Copy the Public IP Address.

If using Azure App Service (Web App)

Go to Azure Portal → App Services.

Click on your Web App.

Copy the Default domain (e.g., yourapp.azurewebsites.net).



Step 2: Create a DNS Zone in Azure (If Not Already Created)

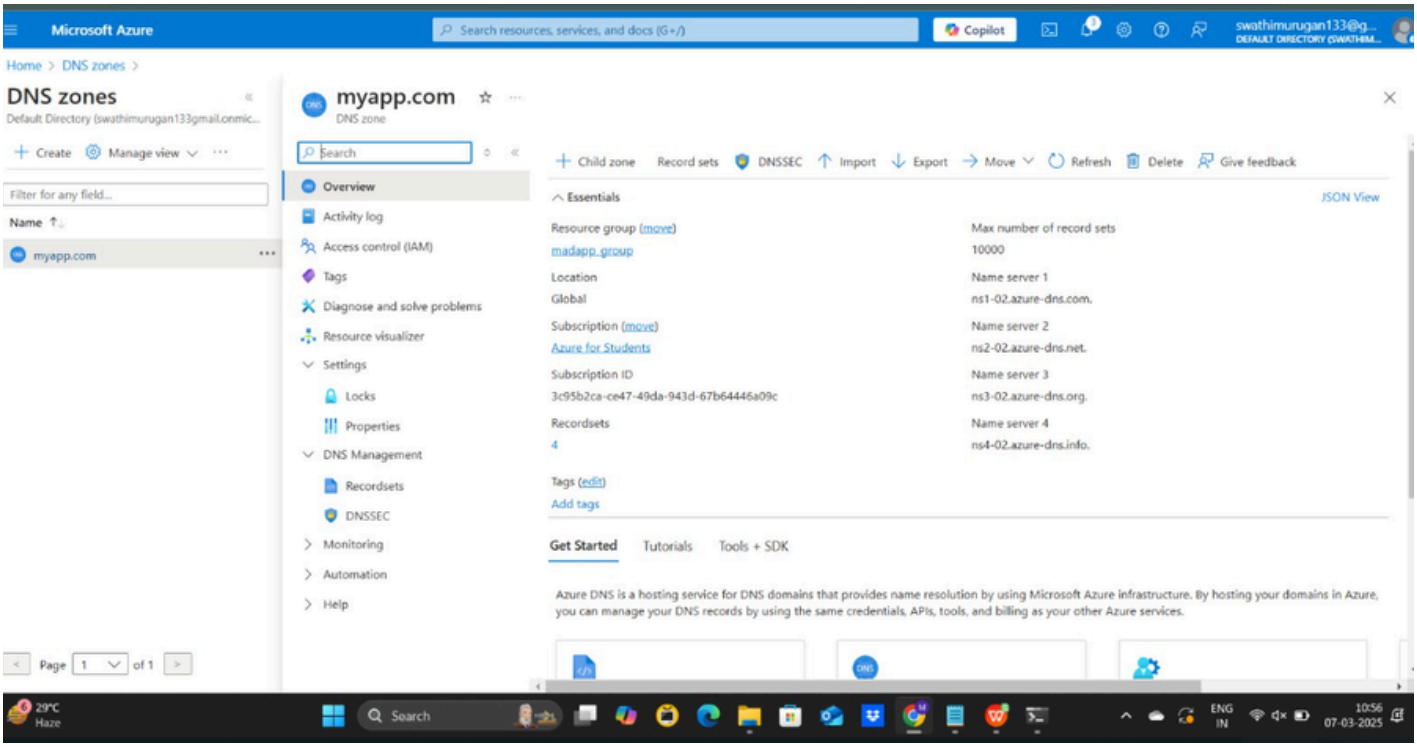
In Azure Portal, search for DNS zones.

Click + Create to create a new DNS Zone.

Enter your domain name (e.g., myapp.com).

Select a Resource Group → Click Review + Create → Create.

Open the newly created DNS Zone, and you'll see four Name Servers (NS records).



Step 3: Add a DNS Record to Point to Your Application

In Azure Portal → DNS Zones, select your DNS zone (e.g., myapp.com).

Click + Record set to create a new record.

Choose the appropriate type based on your setup:

For a Web App or Load Balancer (Public IP):

Name: @ (for root domain) or www (for subdomain like www.myapp.com).

Type: A (if you have a Public IP) OR CNAME (if using yourapp.azurewebsites.net).

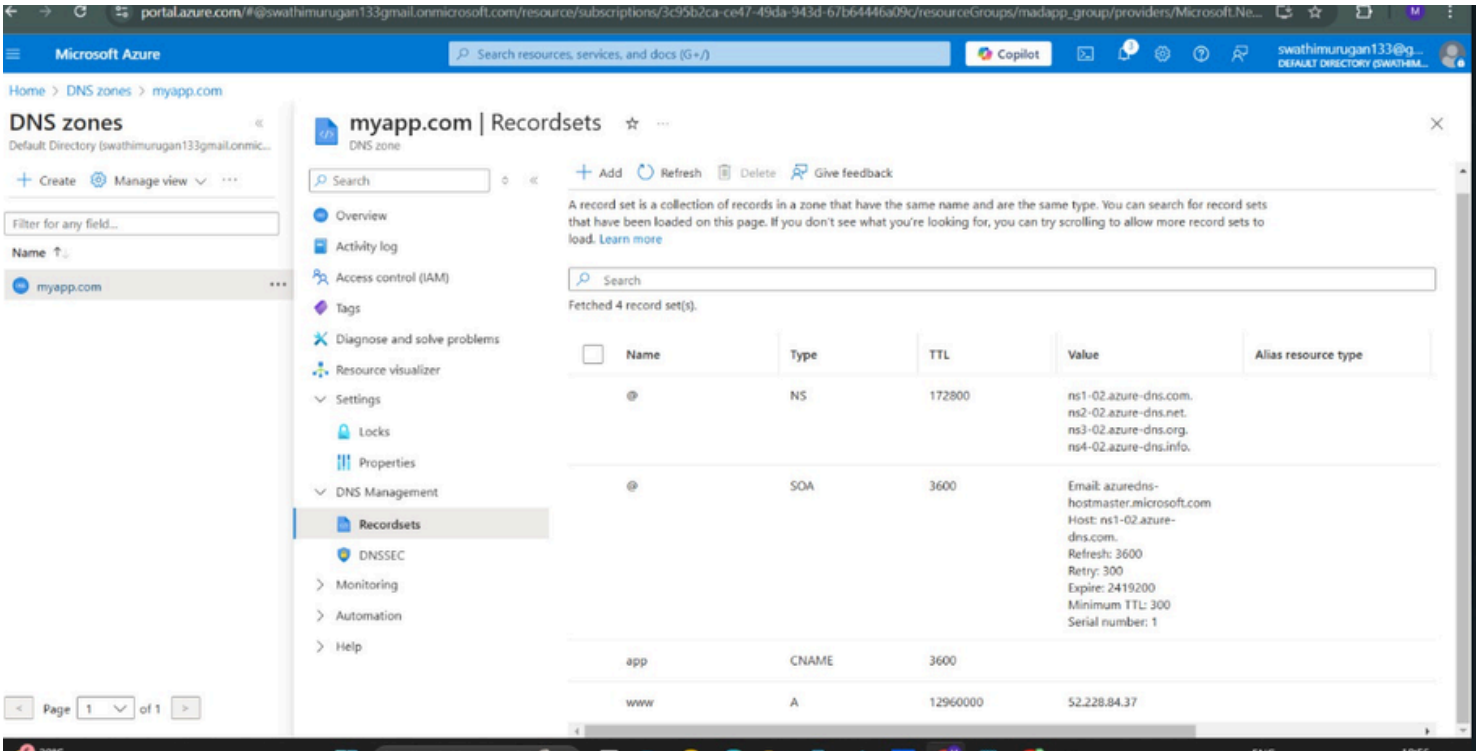
TTL: 1 hour (or leave default).

Value:

A Record → Enter the Public IP (from Step 1).

CNAME Record → Enter yourapp.azurewebsites.net (if using Azure App Service).

Click OK to save the record.



Verify DNS Configuration

Open Command Prompt/Terminal and run

nslookup myapp.com

final output:

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Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\madhu> nslookup myapp.com
Server:  dns.google
Address:  8.8.8.8

Non-authoritative answer:
Name:    myapp.com
Addresses:  42.81.192.183
          101.226.141.21
          113.96.19.161

PS C:\Users\madhu>
```