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aws

Placement Empowerment Program

Cloud Computing and DevOps Centre

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

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Task: Implement DNS for a Web App – Map Web App IP or Load Balancer to a Domain Name

Description:

In this task, we will configure **DNS for a web application** hosted in Azure. The process includes:

1. **Setting up an Azure DNS Zone** to manage domain records.
2. **Creating an A record** to map the web app's public IP or Load Balancer IP to a domain name.
3. **Configuring a CNAME record** (if needed) for custom domain mapping.
4. **Verifying DNS resolution** using domain lookup tools.

This setup ensures that users can access the web app using a friendly **domain name** instead of an IP address.

Step-by-Step Implementation

Step 1: Create an Azure DNS Zone

1. Go to **Azure Portal** → **DNS Zones** → Click **Create**.
2. Configure:
   - **Subscription**: Select your Azure subscription.
   - **Resource Group**: Select an existing group or create a new one.
   - **DNS Zone Name**: Enter your domain name (e.g., mywebapp.com).
3. Click **Review + Create** → **Create**.

Step 2: Create an A Record to Map the Web App or Load Balancer IP

1. Open the **DNS Zone** you created.
2. Click **+ Record Set**→ Configure:
   - **Name**: Enter a subdomain (e.g., www for www.mywebapp.com).
   - **Type**: **A (Address Record)**.
   - **TTL**: Keep default (e.g., 3600 seconds).
   - **IP Address**: Enter the **Public IP of your Web App or Load Balancer**.
3. Click **OK** to save the record.

Step 3: (Optional) Add a CNAME Record for Custom Domain Mapping

If using an **Azure Web App (App Service)**, create a **CNAME record** instead of an A record:

1. Click **+ Record Set** in the **DNS Zone**.
2. Configure:
   - **Name**: app (to create app.mywebapp.com).
   - **Type**: **CNAME (Alias Record)**.
   - **Alias**: Enter the **Web App's default domain** (e.g., mywebapp.azurewebsites.net).
3. Click **OK** to save.

Step 4: Update Domain Registrar with Azure Name Servers

1. In **Azure DNS Zone**, go to the **Name Servers** section.
2. Copy the provided Azure Name Server records (e.g., ns1-01.azure-dns.com).
3. Log in to your **domain registrar** (GoDaddy, Namecheap, etc.).
4. Update the domain's **Name Server (NS) records** with the Azure Name Servers.

Step 5: Verify DNS Propagation

After updating the NS records, DNS changes may take some time to propagate.

- Test using:
- nginx
- CopyEdit

- nslookup www.mywebapp.com