**DEPLOYING A ANGULAR PROJECT IN EC2 INATANCES**

**Porpose:**

# Launching EC2 Instance and Deploying Angular Application on AWS

**Prerequisite:**

**Aws account:** You have a valid AWS account with the necessary credentials

**GitHub account:** You have a valid GitHub account with a username and password

**Data confirmation:**

1. EC2 Instance ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. EC2 Instance Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Angular Project Repository URL: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Angular Project Branch: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Deployment Directory: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e.g., /var/www/html)

6. Web Server: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (e.g., Apache, Nginx)

**Step 1: Launch an EC2 Instance**

Sign in to **AWS Management Console** → Go to **EC2 Dashboard**.

Click **Launch Instance**.

* + AMI: Choose **Ubuntu Server** (recommended).
  + Instance Type: **t2.micro** (free tier eligible).
  + Key Pair: Create/select a key pair for SSH access.
  + Security Group:
    - Allow **SSH (Port 22)** - for remote access.
    - Allow **HTTP (Port 80)** - for web traffic.

Launch the instance and wait for it to initialize.

**Pre-Deployment Steps:**

1. Verify EC2 Instance: Ensure the EC2 instance is running

2. Clone Repository: Clone the Angular project repository from your version control system

**Deployment steps:**

**Step 1: Connect to EC2 Instance**

1. Open a terminal or command prompt.

2. Navigate to the directory where your SSH key is stored (e.g., ~/.ssh).

3. Connect to your EC2 instance using SSH:

ssh -i "your\_ssh\_key.pem" ec2-user@your\_ec2\_instance\_public\_dns

Replace your\_ssh\_key.pem with the name of your SSH key file, and your\_ec2\_instance\_public\_dns with the public DNS name of your EC2 instance.

**Step 2: Install Dependencies**

1. Install Node.js and npm:

sudo yum install -y nodejs npm

2. Install the Angular CLI:

sudo npm install -g @angular/cli

**Step 3: Clone Repository**

1. Clone your Angular project repository:

git clone your\_repository\_url

Replace your\_repository\_url with the URL of your Angular project repository.

**Step 4: Build Angular Project**

1. Navigate to the cloned repository directory:

cd your\_repository\_directory

2. Install the project dependencies:

npm install

3. Build the Angular project for production:

ng build --prod

**Step 5: Configure Web Server**

1. Configure the web server to serve the Angular application.

For Apache:

sudo mv dist/your\_project\_name /var/www/html

sudo chown -R ec2-user:ec2-user /var/www/html

sudo chmod -R 755 /var/www/html

For Nginx:

sudo mv dist/your\_project\_name /usr/share/nginx/html

sudo chown -R ec2-user:ec2-user /usr/share/nginx/html

sudo chmod -R 755 /usr/share/nginx/html

Replace your\_project\_name with the name of your Angular project.

Step 6: Restart Web Server

Restart the web server to apply the changes.

For Apache:

sudo service httpd restart

For Nginx:

sudo service nginx restart

**Step 7: Verify Deployment**

1. Verify that the Angular application is deployed correctly and accessible via the desired URL.