WordPress Deployment on AWS EC2

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1. Launching the EC2 Instance

Created an EC2 instance using the t2.micro tier (free-tier eligible) and named it **wordpress-server**. Selected Amazon Linux 2 as the OS. Configured security groups to allow inbound traffic for: SSH (port 22) - for remote login HTTP (port 80) - to serve the WordPress site HTTPS (port 443) - for SSL Access was allowed from 0.0.0.0/0 for simplicity (not recommended in production).

Connected to the instance using: ssh -i your-key.pem ec2-user@<your-ec2-public-ip> 2. Updating the Server Packages

Updated all system packages to ensure security and compatibility. sudo yum update -y 3. Installing Apache Web Server

Installed Apache to serve web content and enabled it to start on boot. sudo yum install httpd -y sudo systemctl start httpd sudo systemctl enable httpd **4. Installing MariaDB** (MySQL Server)

Installed MariaDB for database management. sudo yum install mariadb-server -y sudo systemctl start mariadb sudo systemctl enable mariadb sudo mysql_secure_installation **5.**

Creating the WordPress Database

Logged into MariaDB and created the WordPress database and user. sudo mysql -u root -p CREATE DATABASE wordpress; CREATE USER 'wpuser'@'localhost' IDENTIFIED BY 'wet1234'; GRANT ALL PRIVILEGES ON wordpress.* TO 'wpuser'@'localhost'; FLUSH PRIVILEGES; EXIT; 6. Installing PHP and Required Extensions Installed PHP and modules necessary for WordPress to function. sudo yum install php php-mysqlnd php-gd php-xml php-mbstring -y sudo systemctl restart httpd 7.

Downloading and Configuring WordPress

Downloaded and extracted WordPress in the Apache directory. cd /tmp wget https://wordpress.org/latest.tar.gz tar -xvzf latest.tar.gz sudo mv wordpress /var/www/html/ 8. Setting Permissions for Apache

Granted Apache user (apache) the required access permissions. sudo chown -R apache:apache /var/www/html/wordpress sudo chmod -R 755 /var/www/html/wordpress 9.

Configuring WordPress

Copied and edited the WordPress configuration file. cd /var/www/html/wordpress cp wp-config-sample.php wp-config.php sudo nano wp-config.php Updated the following lines: define('DB_NAME', 'wordpress'); define('DB_USER', 'wpuser'); define('DB_PASSWORD', 'wet1234'); define('DB_HOST', 'localhost'); **10.** Restarting Services Restarted Apache and MariaDB services. sudo systemctl restart httpd sudo systemctl restart mariadb **11.** Accessing WordPress

Accessed the WordPress setup through the browser:

http://<your-ec2-public-ip>/wordpress Completed the setup wizard to configure the site title, admin credentials, and email.

WordPress is now successfully installed and running on the EC2 instance. Optional (Recommended for Production): Set up an SSL certificate using Let's Encrypt. Configure a domain name with Route 53. Restrict SSH/HTTP access to trusted IPs only.