

Deploying a WordPress Application on Ubuntu using AWS EC2 and RDS

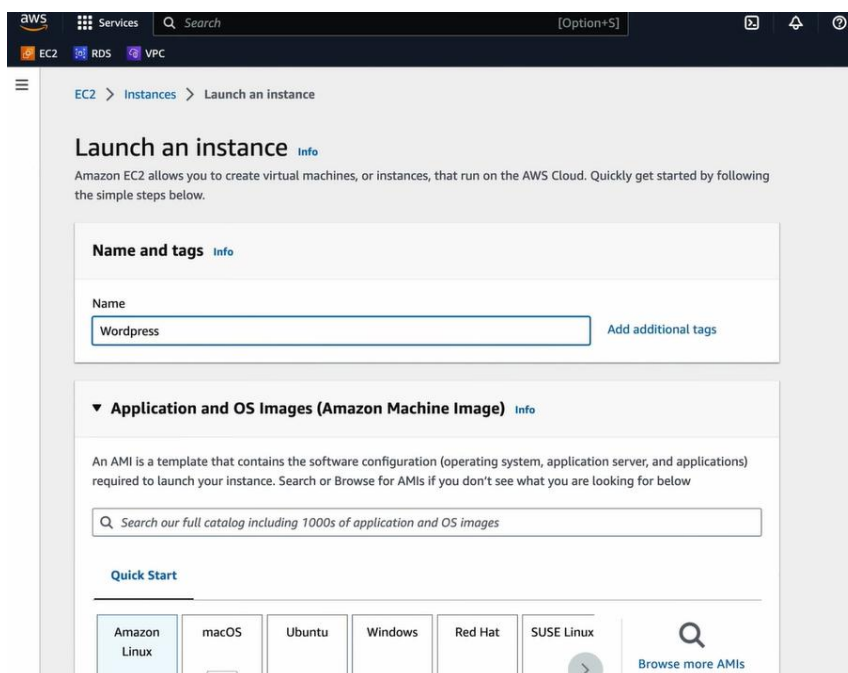
It's a complete conduct on deploying a WordPress website using Amazon Web Services (AWS) EC2 and RDS, specifically setting up a personal blog or website.

Prerequisites

1. AWS Account: The user must have an AWS account with the necessary permissions to create EC2 instances and RDS databases.
2. Basic Knowledge: Some familiarity with AWS and WordPress is beneficial but not mandatory.

1: Launching an EC2 Instance

- Logs into the AWS Management Console and navigates to the EC2 dashboard.



- Launching an Instance:

- Clicks on "Launch Instance" and fills in the basic details, such as the instance name.
- Selects the Amazon Machine Image (AMI), specifically Ubuntu, which is eligible for the free-tier.

Quick Start

Amazon Linux
aws

macOS
Mac

Ubuntu
ubuntu

Windows
Microsoft

Red Hat
Red Hat

SUSE Linux
SUSE

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type
 ami-0f5ee92e2d63afc18 (64-bit (x86)) / ami-077053fb4029de92f (64-bit (Arm))
 Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-05-16

Architecture

64-bit (x86)

AMI ID
ami-0f5ee92e2d63afc18

Verified provider

- Configures instance details, including selecting a security group that allows HTTP and HTTPS traffic.

▼ **Instance type** [Info](#)

Instance type

t2.micro
 Family: t2 1 vCPU 1 GiB Memory Current generation: true
 On-Demand Linux pricing: 0.0124 USD per Hour
 On-Demand Windows pricing: 0.017 USD per Hour
 On-Demand RHEL pricing: 0.0724 USD per Hour
 On-Demand SUSE pricing: 0.0124 USD per Hour

Free tier eligible

☒ All generations

[Compare instance types](#)

Create key pair ✕

Key pair name
Key pairs allow you to connect to your instance securely.

The name can include upto 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

☒ **RSA**
 RSA encrypted private and public key pair

☐ **ED25519**
 ED25519 encrypted private and public key pair

Private key file format

☒ **.pem**
 For use with OpenSSH

☐ **.ppk**
 For use with PuTTY

⚠ When prompted, store the private key in a secure and accessible location on your computer. **You will need it later to connect to your instance.** [Learn more](#)

Cancel **Create key pair**

▼ Network settings Info

Edit

Network Info

vpc-05e8e6d2f79892f53

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group

☐ Select existing security group

We'll create a new security group called 'launch-wizard-2' with the following rules:

☒ Allow SSH traffic from

Helps you connect to your instance

Anywhere
0.0.0.0/0

☐ Allow HTTPS traffic from the internet

To set up an endpoint, for example when creating a web server

☐ Allow HTTP traffic from the internet

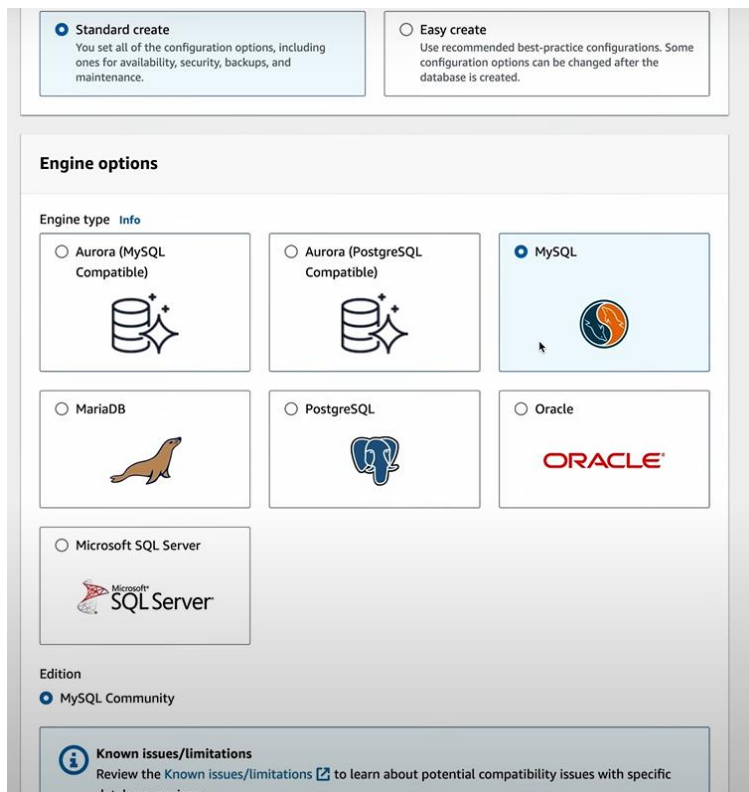
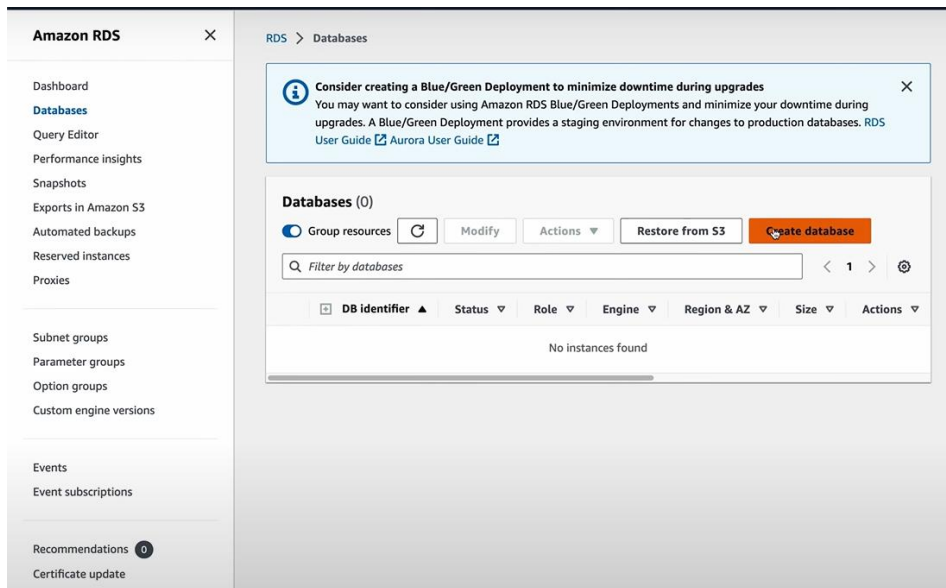
To set up an endpoint, for example when creating a web server

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

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2: Setting Up RDS

- Set up the RDS instance:
 - Navigates to the RDS console and creates a new database instance.
 - Chooses the database engine, MySQL, and selects the MySQL version compatible with WordPress.
 - Configures the database settings, including the database name, username, and password.
 - Sets the instance type to a free-tier eligible option like t2.micro or t3.micro and allocates the storage.
 - Configures the security group for RDS to allow connections from the WordPress EC2 instance.



3: Setting Up the LAMP Stack(Linux, Apache, MySQL, and PHP)

- After the EC2 instance is running, connect it via SSH.
- Update the System: The first step is to update the package manager to ensure all libraries are up to date.
- Install Apache: Install the Apache web server, which will serve the WordPress site.
- Installing PHP and Required Libraries: Install PHP and the necessary libraries to enable WordPress functionality.

- Commands Used:

1. Install Apache server on Ubuntu

```
sudo apt install apache2
```

2. Install PHP runtime and PHP MySQL connector

```
sudo apt install php libapache2-mod-php php-mysql
```

3. Install MySQL server

```
sudo apt install mysql-server
```

4. log in to the MySQL server

```
sudo mysql -u root
```

5. Change authentication plugin to mysql_native_password

```
ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by '_password_';
```

6. Create a new database user for WordPress (change the password to something strong)

```
CREATE USER 'wp_user'@localhost IDENTIFIED BY '_password_';
```

7. Grant all privileges on the database 'wp' to the newly created user

```
GRANT ALL PRIVILEGES ON wp.* TO 'wp_user'@localhost;
```

4: Arrange the Database

- Connects to the RDS database using the MySQL client and creates a new database for WordPress.
- The name for the database is set to "WordPress,". Exit the MySQL client after confirming the database creation.

5: Downloading and Configuring WordPress

- Download the latest version of WordPress from the official website.
- Extract the downloaded files, and necessary permissions are set for the WordPress directory.

6: Completing the WordPress Installation

- Navigate to the WordPress installation page in a web browser.
- Enter the database connection details, including the database name, username, and password, and host.
- The site title, admin username, password, and email are configured.
- The presenter completes the installation and logs into the WordPress admin dashboard.



Welcome to WordPress. Before getting started, you will need to know the following items.

1. Database name
2. Database username
3. Database password
4. Database host
5. Table prefix (if you want to run more than one WordPress in a single database)

This information is being used to create a `wp-config.php` file. **If for any reason this automatic file creation does not work, do not worry. All this does is fill in the database information to a configuration file. You may also simply open `wp-config-sample.php` in a text editor, fill in your information, and save it as `wp-config.php`.** Need more help? [Read the support article on wp-config.php.](#)

In all likelihood, these items were supplied to you by your web host. If you do not have this information, then you will need to contact them before you can continue. If you are ready...

Let's go!



Below you should enter your database connection details. If you are not sure about these, contact your host.

Database Name	<input type="text" value="wordpress"/>	The name of the database you want to use with WordPress.
Username	<input type="text" value="username"/>	Your database username.
Password	<input type="text" value="password"/>	Your database password.
Database Host	<input type="text" value="localhost"/>	You should be able to get this info from your web host, if <code>localhost</code> does not work.
Table Prefix	<input type="text" value="wp_"/>	If you want to run multiple WordPress installations in a single database, change this.

Submit



Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Do not worry, you can always change these settings later.

Site Title

Username

Username can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password

h#qLz\$7AkVxL5n4!!M

 Hide

Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email

Double-check your email address before continuing.

Search engine
visibility

☐ Discourage search engines from indexing this site

It is up to search engines to honor this request.

[Install WordPress](#)

7: Customizing the WordPress Site as per your need