

## DEPLOYING A WORDPRESS HOMEPAGE IN MONOLITHIC ARCHITECTURE

STEPS:

- Create 1 EC2 Instance and Deploy wordpress and MYSQL on that Instance.
- Configure the Security Group for your instances.
- EC2 instance type: t2-micro, and USE AMI: Ubuntu
- Create a welcome page in wordpress that will be the homepage

STEPS: 1. Log in to your AWS Management Console.

2. Navigate to the EC2 Dashboard and click on “Launch Instance”.

3. Give the instance a name like “Monolithic”

4. Select an appropriate Amazon Machine Image (AMI) based on your requirements. For this example, let's choose the latest Ubuntu Server.

5. Choose the instance type according to your needs. We'll go with a t2.micro(Free Tier) instance.

6. Configure instance details including the number of instances, network settings, and storage. Ensure to create or select a security group that permits inbound traffic on HTTP (port 80) and SSH (port 22).

7. Review the configurations and click on the “Launch Instance” button. This setup should get you started with your EC2 instance running a WordPress server on a monolithic architecture.

This setup should get you started with your EC2 instance running a WordPress server on a monolithic architecture

The screenshot displays the AWS Management Console interface for an EC2 instance. The breadcrumb navigation at the top shows 'EC2 > Instances > i-00a32f2085f992d69'. The main heading is 'Instance summary for i-00a32f2085f992d69 (Monolithic)' with an 'Info' link. Below the heading, it says 'Updated less than a minute ago'. On the right, there are buttons for 'Refresh', 'Connect', 'Instance state', and 'Actions'. The instance details are organized into three columns:

Instance ID	Public IPv4 address	Private IPv4 addresses
i-00a32f2085f992d69 (Monolithic)	54.79.90.0   <a href="#">open address</a>	172.31.13.57
IPv6 address	Instance state	Public IPv4 DNS
—	Running	ec2-54-79-90-0.ap-southeast-2.compute.amazonaws.com   <a href="#">open address</a>
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP addresses
IP name: ip-172-31-13-57.ap-southeast-2.compute.internal	ip-172-31-13-57.ap-southeast-2.compute.internal	—
Answer private resource DNS name	Instance type	AWS Compute Optimizer finding
IPv4 (A)	t2.micro	Opt-in to AWS Compute Optimizer for recommendations.   <a href="#">Learn more</a>
Auto-assigned IP address	VPC ID	Auto Scaling Group name
54.79.90.0 [Public IP]	vpc-0c34064b5db84eedd	—
IAM Role	Subnet ID	
—	subnet-07605abd37921f921	
IMDSv2	Instance ARN	

Services

Search

[Alt+S]

Port 22 (SSH) is open to all IPv4 addresses

Port 22 (SSH) is currently open to all IPv4 addresses, indicated by **0.0.0.0/0** in the inbound rule in [your security group](#). For increased security, consider restricting access to only the EC2 Instance Connect service IP addresses for your Region: 13.239.158.0/29. [Learn more](#).

Instance ID

i-00a32f2085f992d69 (Monolithic)

Connection Type

☒ Connect using EC2 Instance Connect
 

Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.

☐ Connect using EC2 Instance Connect Endpoint
 

Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address

54.79.90.0

Username

Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.

Search

ubuntu

X

Note: In most cases, the default username, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Cancel

Connect

Launch an instance | EC2 | ap-southeast-2

Instance details | EC2 | ap-southeast-2

EC2 Instance Connect | ap-southeast-2

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ap-southeast-2.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-southeast-2&connType=standard&instanceId=i-00a32f2085f992d69&osUser=ubuntu

Apps

YouTube

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Services

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[Alt+S]

```

get:25 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [212 B]
get:26 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [532 B]
get:27 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
get:28 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
get:29 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [10.3 kB]
get:30 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [10.5 kB]
get:31 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [17.6 kB]
get:32 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1016 B]
get:33 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
get:34 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
get:35 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
get:36 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
get:37 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [265 kB]
get:38 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [63.1 kB]
get:39 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [3632 B]
get:40 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [246 kB]
get:41 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [106 kB]
get:42 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [8632 B]
get:43 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [9164 B]
get:44 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [208 kB]
get:45 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [40.7 kB]
get:46 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [420 B]
get:47 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [10.6 kB]
get:48 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [2808 B]
get:49 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
get:50 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [344 B]
Fetched 28.2 MB in 6s (4986 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
39 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@ip-172-31-13-57:~# sudo apt install apache2
  
```

## COMMANDS TO FOLLOW:

### 1. Install Apache server on Ubuntu:

- `sudo apt update`
- `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. Login to MySQL server:

- `sudo mysql -u root`

### 5. Change authentication plugin to `mysql_native_password` (change the password to something strong):

- `ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by 'Akshay@123';`

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

- `CREATE USER 'vaibhavi_user'@'localhost' IDENTIFIED BY 'Akshay@123';`

### 7. Create a database for WordPress:

- `CREATE DATABASE wp;`

### 8. Grant all privileges on the database 'wp' to the newly created user:

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

### 9. Download WordPress:

- `cd /tmp` • `wget https://wordpress.org/latest.tar.gz`

### 10. Unzip:

- `tar -xvf latest.tar.gz`

### 11. Move WordPress folder to Apache document root:

- `sudo mv wordpress/ /var/www/html`

### 12. Command to restart/reload Apache server:

- `sudo systemctl restart apache2`


13. Now, navigate to the WordPress directory and configure the `wp-config.php` file:

- `cd /var/www/html/wordpress`
- `sudo cp wp-config-sample.php wp-config.php`
- `sudo vim wp-config.php` Open your browser and navigate to your WordPress instance's public IP address.

Follow the WordPress installation wizard to complete the setup.

Not secure 54.79.90.0/wordpress/wp-admin/setup-config.php?step=1

Maps Gmail



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

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



## 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	<input type="text" value="My Website"/>
Username	<input type="text" value="Akshay"/> <small>Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.</small>
Password	<div><input type="password" value="pUeVc)B\$2t2(Ne&amp;#@!"/><input type="button" value="Hide"/></div> <div>Strong</div> <p><b>Important:</b> You will need this password to log in. Please store it in a secure location.</p>
Your Email	<input type="text"/> <small>Double-check your email address before continuing.</small>
Search engine visibility	<input checked="" type="checkbox"/> Discourage search engines from indexing this site <small>It is up to search engines to honor this request.</small>
<input type="button" value="Install WordPress"/>	



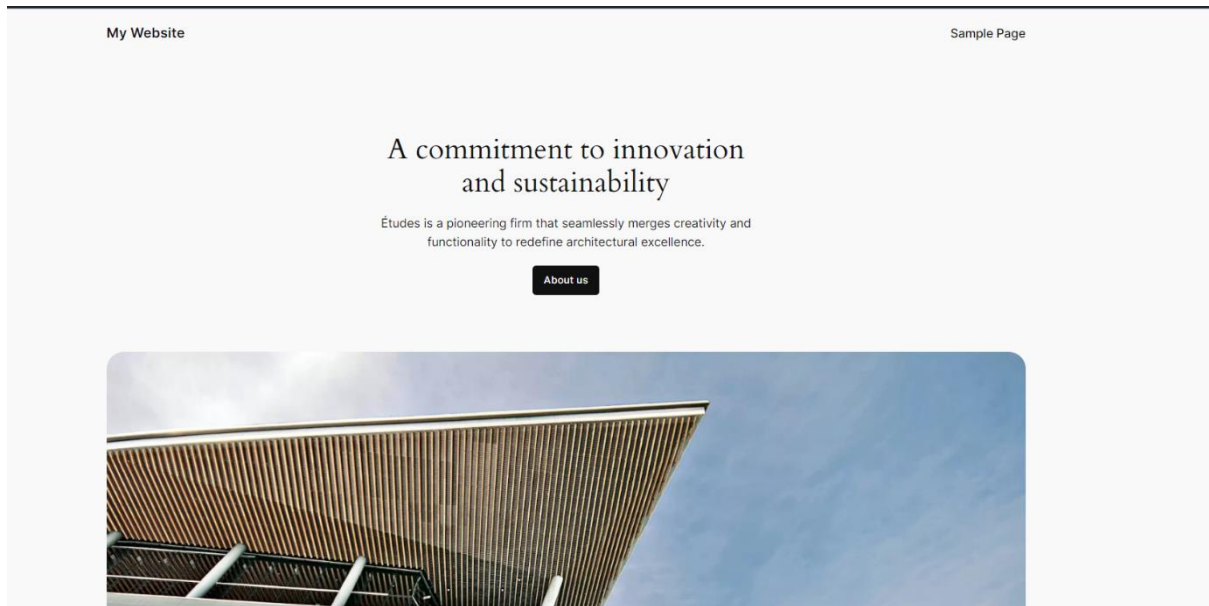
## Success!

WordPress has been installed. Thank you, and enjoy!

**Username** Akshay

**Password** *Your chosen password.*

[Log In](#)



## **DEPLOYING A WORDPRESS HOMEPAGE IN MONOLITHIC ARCHITECTURE**

Description:

- Setting up Wordpress and MYSQL in two different EC2 instances
- Configure the necessary security group for the instances.
- EC2 instance type: t2-micro, AMI: ubuntu-\*

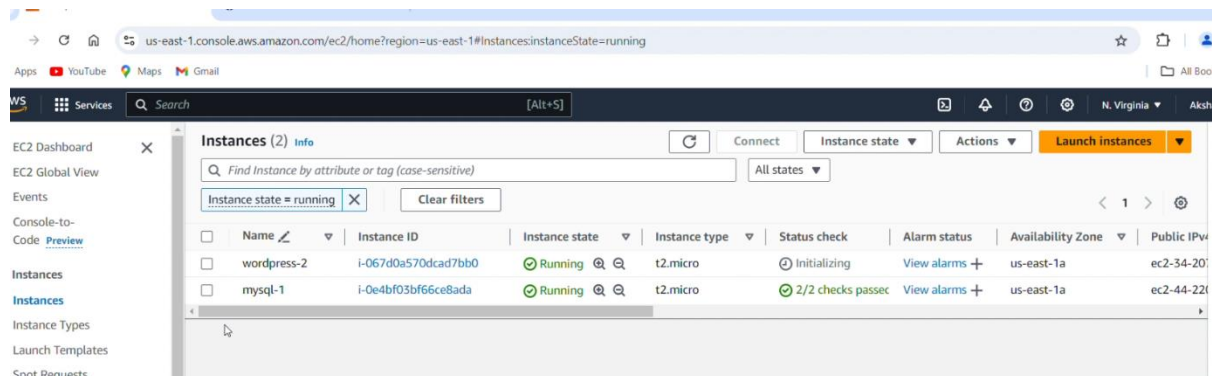
Create a welcome page in wordpress that will be the homepage.

Creating 2 Instances 1 for Wordpress as well AS 1 for MySQL

(STEPS to create 2 EC2 instances are same)

1. Access your AWS Management Console.
2. Go to the EC2 Dashboard and hit "Launch Instance".
3. Name your instance " Instance1" and "Instance2".
4. Pick an appropriate Amazon Machine Image (AMI). I will Opt for Ubuntu Latest Version.
5. Select the instance type based on your needs. I'll go with a t2.micro(free-tier) instance.
6. Configure instance details like the number of instances, network settings, and storage. Ensure to include a security group allowing inbound traffic on HTTP (port 80), SSH (port 22) & MYSQL (port 3306) .

7. Review your settings and proceed by clicking “Launch instance”.



I Will be Setting Up mysql-1 First:

1. Install MySQL on MySQL Instance:

- `sudo apt install mysql-server -y`
- `sudo apt update`
- `sudo apt install apache2 y`
- `sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf` (change bind to address 0.0.0.0)
- `systemctl restart mysql`

Now Install PHP and Other Dependencies on WordPress Instance:

- `sudo apt update`
- `sudo apt install apache2`
- `sudo apt install php libapache2-mod-php php-mysql -y`
- `sudo systemctl restart apache2`

Create MySQL Database:

- `ALTER USER 'root'@'localhost' IDENTIFIED BY 'Akshay12';`
- `CREATE DATABASE wp;`
- `CREATE USER 'wp_user'@'%' IDENTIFIED BY 'Akshay12';`
- `GRANT ALL PRIVILEGES ON wp.* TO 'wp_user'@'%';`
- `Exit`

ON Instance 2

- `sudo apt update`
- `sudo apt install apache2 -y`
- `mysql -u wp user -p -h %`
- `show DATABASES;`
- `use wp;`
- `show tables;`
- `cd /tmp`

Download WordPress:

- `wget https://wordpress.org/latest.tar.gz`



- `sudo apt install unzip`
  - `unzip latest.zip`
  - `sudo mv wordpress /var/www/html/` (moving wordpress)
  - `cd /var/www/html/wordpress` (changing directory)
3. Update the database settings: In the Browser, enter public ip of web server ex: 8.8.8.8/wordpress to finish setup

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

Database Name:   
The name of the database you want to use with WordPress.

Username:   
Your database username.

Password:  [Show](#)  
Your database password.

Database Host:   
You should be able to get this info from your web host. If localhost does not work.

Table Prefix:   
If you want to run multiple WordPress installations in a single database, change this.

[Submit](#)

4. Now
- `vim wp-config.php` (create file and paste the configuration rules in this file)
  - `sudo systemctl restart apache2`

Browse with your public IP/wordpress. Wordpress will automatically connect to the MySQL server on another EC2.

Welcome

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Information needed

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

Site Title:

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

Password:  [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](#)



