

## **Report on Deployment of MySQL and WordPress Using 2 EC2 Instances in Microservice Architecture**

The two instances will be configured to run independently, with MySQL on one instance and WordPress on another, communicating over the network, emulating a microservices-based architecture. Each service is decoupled from the each other

**EC2 Instance 1 (MySQL):** This instance is dedicated to hosting the MySQL database. The database handles all data storage and retrieval for the WordPress application. Instance IP - 3.110.217.115 named as microsql

**EC2 Instance 2 (WordPress):** This instance runs the WordPress application and connects to the MySQL instance to store and retrieve data for website management. Instance IP - 13.203.97.193, given name to this instance as microwordpress.

**Instance type - t2.micro**

**Operating system – Ubuntu 24.04**

**Security Group that allows:**

- **Port 22 (SSH) for remote access.**
- **Port 3306 (MySQL/Aurora)**
- **Port 443 and 80 (HTTPs and HTTP)**

Installed mysql on EC1 instance i.e microsql instance and created database wordpress with user sa\_anand using secured password. Installed apache2, php ,php extensions and wordpress on ec2 instace i.e microwordpress. Unzipped the tar file then configured the apache for wordpress then configured wordpress to connect Mysql.

Resources - <https://gist.github.com/teja156/8c35a05f43635da4cbd06b47c0d91e93>  
[https://www.w3schools.com/html/html\\_editor.asp](https://www.w3schools.com/html/html_editor.asp)

Instance details | EC2 | ap-south-1 x Instance details | EC2 | ap-south-1 x Instances | EC2 | ap-south-1 x Smriti Website

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:v=3;\$case=tags:true%5C,client:false;\$regex=tags:false%5C,c...

Search [Alt+S] Asia Pacific (Mumbai) Smr@1234#

EC2 > Security Groups > sg-0b64a1c0dc1aa7120 - launch-wizard-11

### Instances (1/2) Info

Last updated less than a minute ago

Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input checked="" type="checkbox"/> Micromysql	i-01a73fd58531cb6b8	Running	t2.micro	2/2 checks passed	View alarms +
<input type="checkbox"/> MicroWordpress	i-02142cfe79610c6dc	Running	t2.micro	2/2 checks passed	View alarms +

#### i-01a73fd58531cb6b8 (Micromysql)

Details Status and alarms Monitoring Security Networking Storage Tags

##### Instance summary Info

Instance ID i-01a73fd58531cb6b8	Public IPv4 address 3.110.217.115 <a href="#">open address</a>	Private IPv4 addresses 172.31.15.70
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Instance details | EC2 | ap-south-1 x Instance details | EC2 | ap-south-1 x Instance details | EC2 | ap-south-1 x Smriti Website

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#InstanceDetails:instanceId=i-01a73fd58531cb6b8

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EC2 > Instances > i-01a73fd58531cb6b8

### Instance summary for i-01a73fd58531cb6b8 (Micromysql) Info

Updated 7 minutes ago

Connect Instance state Actions

Instance ID i-01a73fd58531cb6b8	Public IPv4 address 3.110.217.115 <a href="#">open address</a>	Private IPv4 addresses 172.31.15.70
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-3-110-217-115.ap-south-1.compute.amazonaws.com <a href="#">open address</a>
Hostname type IP name: ip-172-31-15-70.ap-south-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-15-70.ap-south-1.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding
Auto-assigned IP address	VPC ID	

Instance details | EC2 | ap-south-1 | x Instance details | EC2 | ap-south-1 | x Instance details | EC2 | ap-south-1 | x Smriti Website

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#InstanceDetails:instanceId=i-02142cfe79610c6dc

aws Search [Alt+S] Asia Pacific (Mumbai) Smr@1234#

EC2 > Instances > i-02142cfe79610c6dc

### Instance summary for i-02142cfe79610c6dc (MicroWordPress) info

Updated about 1 hour ago

<b>Instance ID</b> i-02142cfe79610c6dc	<b>Public IPv4 address</b> 13.203.97.193   <a href="#">open address</a>	<b>Private IPv4 addresses</b> 172.31.2.168
<b>IPv6 address</b> -	<b>Instance state</b> Running	<b>Public IPv4 DNS</b> ec2-13-203-97-193.ap-south-1.compute.amazonaws.com   <a href="#">open address</a>
<b>Hostname type</b> IP name: ip-172-31-2-168.ap-south-1.compute.internal	<b>Private IP DNS name (IPv4 only)</b> ip-172-31-2-168.ap-south-1.compute.internal	<b>Elastic IP addresses</b> -
<b>Answer private resource DNS name</b> IPv4 (A)	<b>Instance type</b> t2.micro	<b>AWS Compute Optimizer finding</b> Opt-in to AWS Compute Optimizer for recommendation s.   <a href="#">Learn more</a>
<b>Auto-assigned IP address</b> 13.203.97.193 [Public IP]	<b>VPC ID</b> vpc-0b4ae5e6db559eeb0	

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3.110.217.115 (ubuntu)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
Q 2 3.110.217.115 (ubuntu) x 3 13.203.97.193 (ubuntu) x +
★ Setting up mysql-server (8.0.40-0ubuntu0.24.04.1) ...
Setting up libcgi-pm-perl (4.63-1) ...
Setting up libhtml-template-perl (2.97-2) ...
Setting up libcgi-fast-perl (1:2.17-1) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-15-70:~$ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf
ubuntu@ip-172-31-15-70:~$ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf
ubuntu@ip-172-31-15-70:~$ sudo mysql -u root
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.40-0ubuntu0.24.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

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13.203.97.193 (ubuntu)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help

Setting up php (2:8.3+93ubuntu2) ...
Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
Processing triggers for php8.3-cli (8.3.6-0ubuntu0.24.04.3) ...
Processing triggers for libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.3) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-2-168:~$ wget https://wordpress.org/latest.tar.gz
--2025-01-07 14:45:18-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 26931653 (26M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz      100%[=====] 25.68M  144KB/s   in 3m 4s

2025-01-07 14:48:24 (143 KB/s) - 'latest.tar.gz' saved [26931653/26931653]

ubuntu@ip-172-31-2-168:~$ tar -xvzf latest.tar.gz
wordpress/
wordpress/xmlrpc.php

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