



Simple PHP App on AWS:

Deploying a user management application with MySQL & S3 backups

Agenda: Your Deployment Roadmap

01

Laying the Foundation

Understanding key prerequisites for a smooth setup.

02

EC2 & Web Server Setup

Deploying your application on a robust instance.

03

RDS & Database Integration

Securing your data with a managed MySQL service.

04

Automated Backups with S3

Ensuring data reliability and disaster recovery.

05

Validation & Beyond

Testing your setup and next steps for optimization.

Prerequisites: Preparing Your Environment

AWS Account: Free Tier enabled to minimize costs.

EC2 Key Pair: Secure shell access to your instance.

IAM Role: Granting EC2 necessary S3 permissions.

Basic Knowledge: PHP, MySQL, and AWS fundamentals.

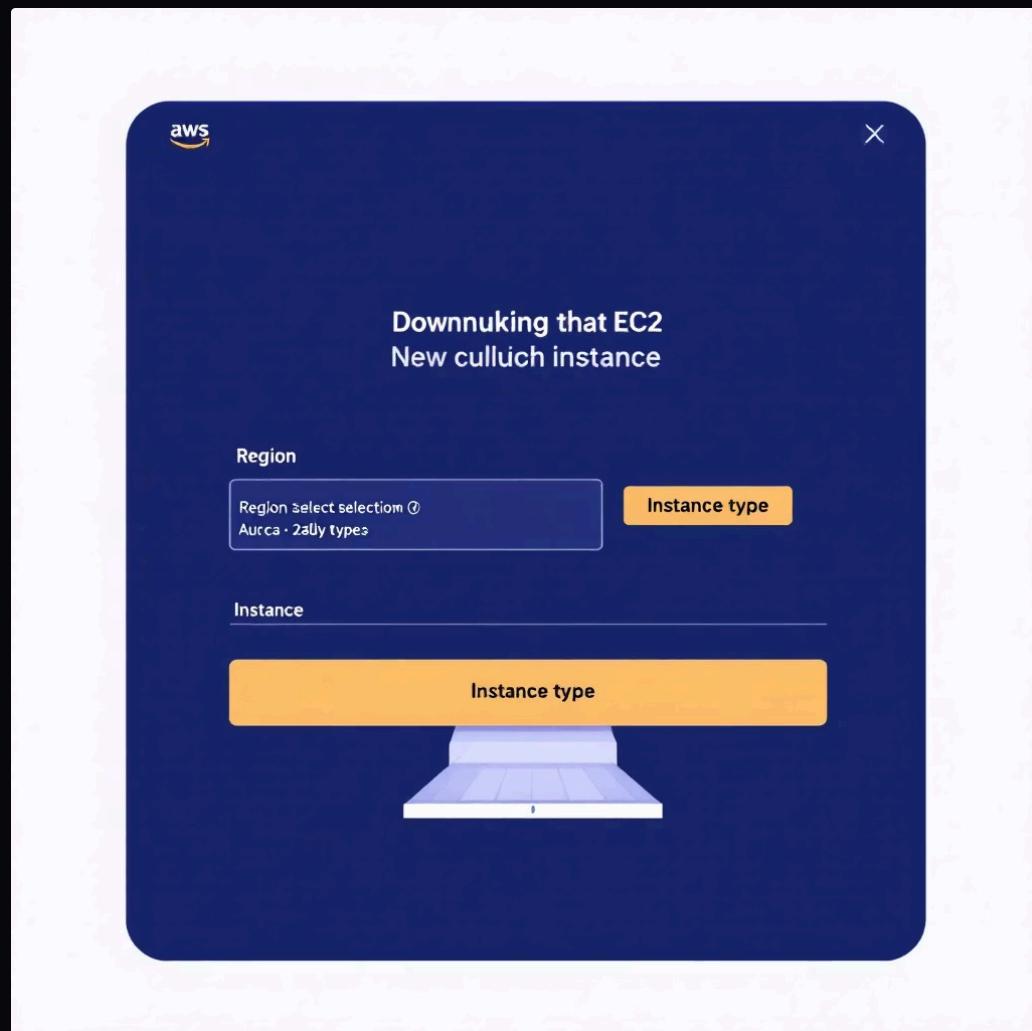


Step 1: Launching Your EC2 Instance

Your foundation for hosting the PHP application.

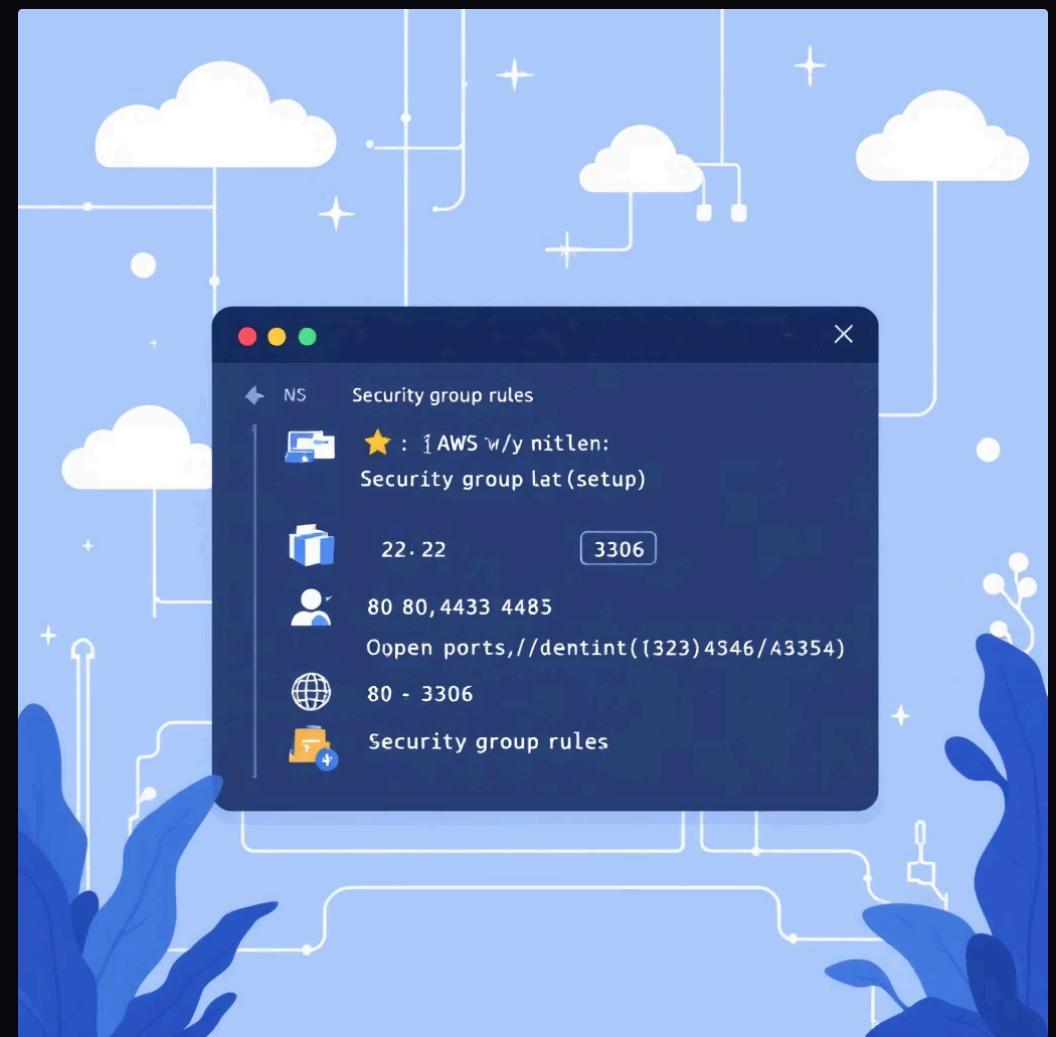
Instance Configuration

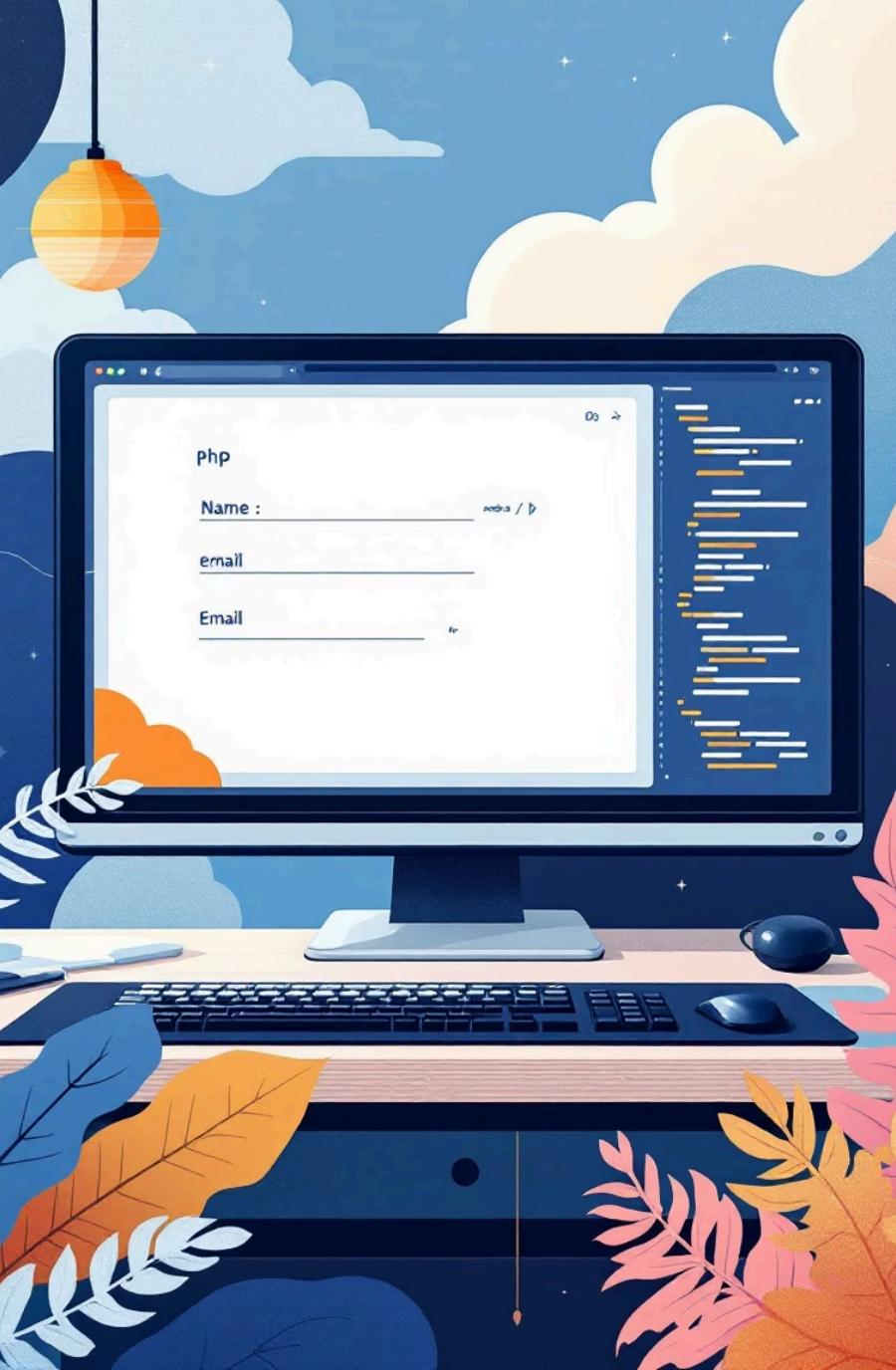
- Red Hat Linux (t2.micro, Free Tier)
- Choose your preferred region
- Enable auto-assign Public IP



Security Group Rules

- **SSH (22):** Secure login
- **HTTP (80):** Web application access
- **HTTPS (443):** Secure web access
- **MySQL (3306):** RDS communication





Step 2: Configuring Your Web Server

Getting your PHP application ready to serve content.

Install Apache & PHP

Use yum to install **httpd** and **php**.

```
sudo yum install -y httpd php
```

Start Apache Service

Enable and start the HTTP server.

```
sudo systemctl start httpd  
sudo systemctl enable httpd
```

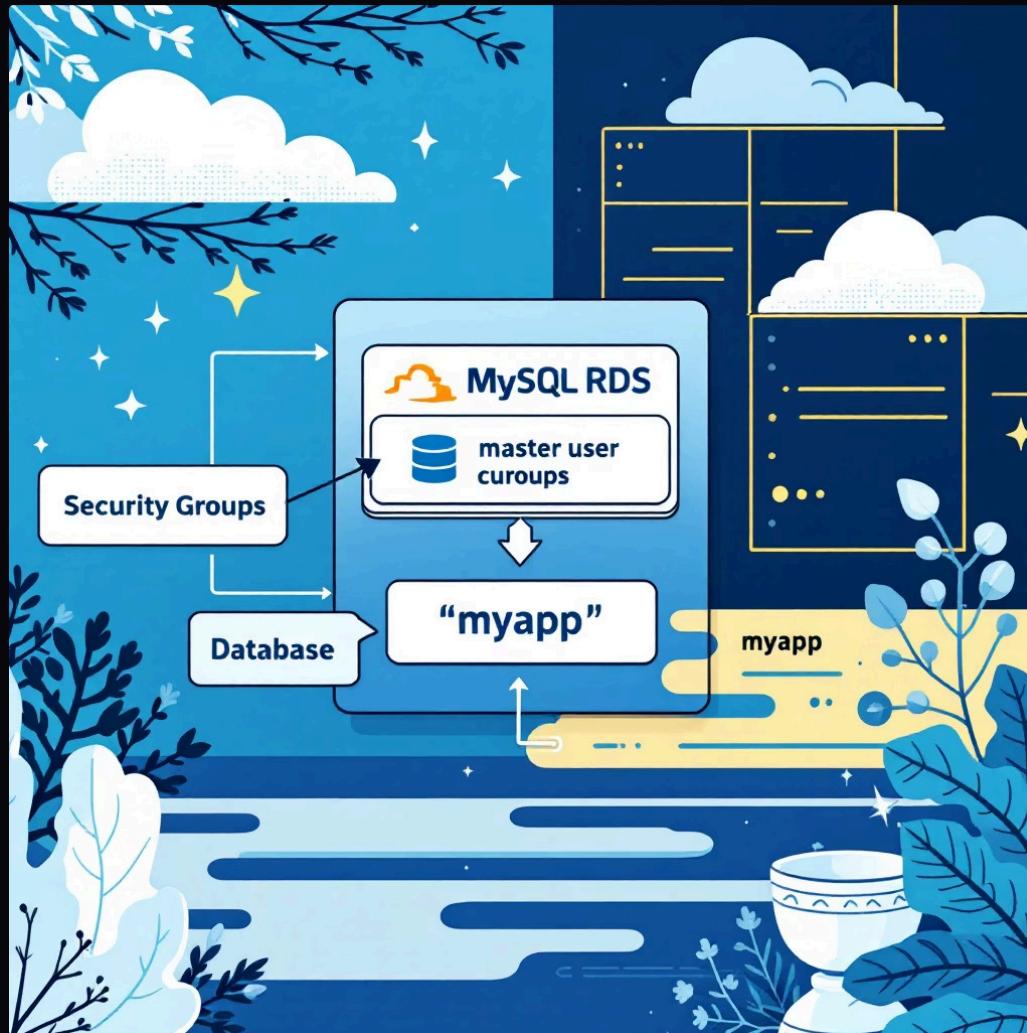
Deploy PHP Form

Host a simple PHP form for user details.

```
echo '<?php phpinfo(); ?>' >  
/var/www/html/info.php
```

Step 3: Setting Up RDS MySQL

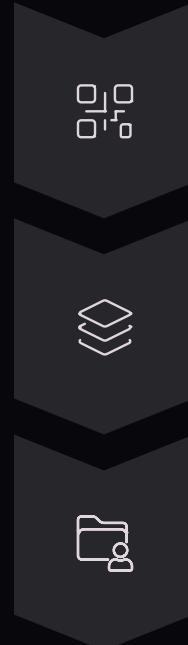
A managed database for secure, scalable data storage.



- Launch MySQL RDS instance (db.t4g.micro, Free Tier)
- Set master username and password
- Attach a security group allowing EC2 access on port [3306](#)
- Create database 'myapp' and table 'users'

Step 4: Integrating EC2 with RDS

Connecting your web application to its data source.



Update PHP App

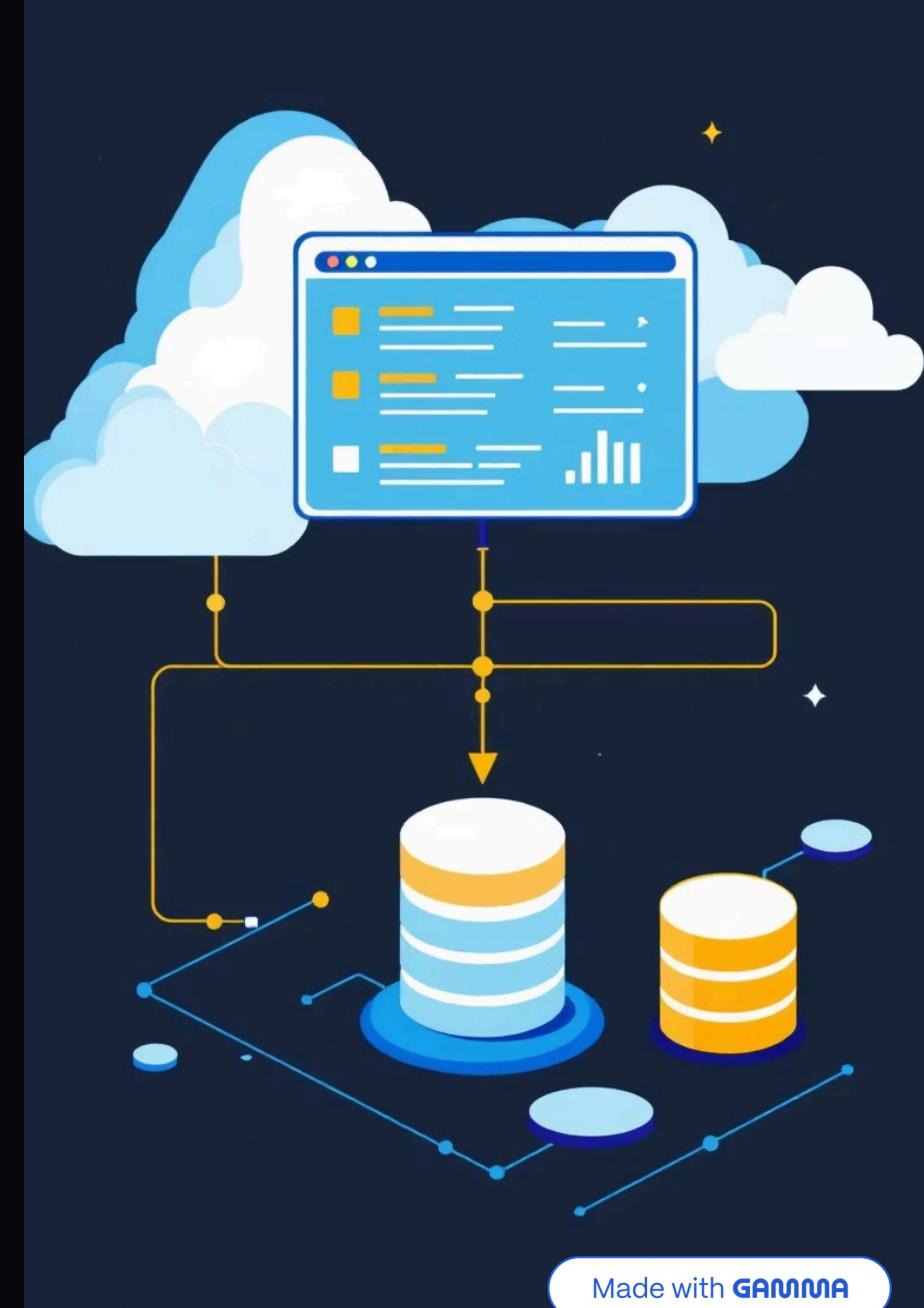
Configure with RDS endpoint, username, and password.

Submit Test Data

Use your web form to input sample user data.

Verify Storage

Confirm data appears in RDS MySQL 'users' table.



Step 5: Enabling S3 for Backups

Automated, secure backups for disaster recovery.

- Create a **private S3 bucket**
- Attach IAM Role with **AmazonS3FullAccess** to EC2



Backup Script Logic

- MySQL dump from RDS
- Upload dump to S3 bucket
- Clean up temporary files

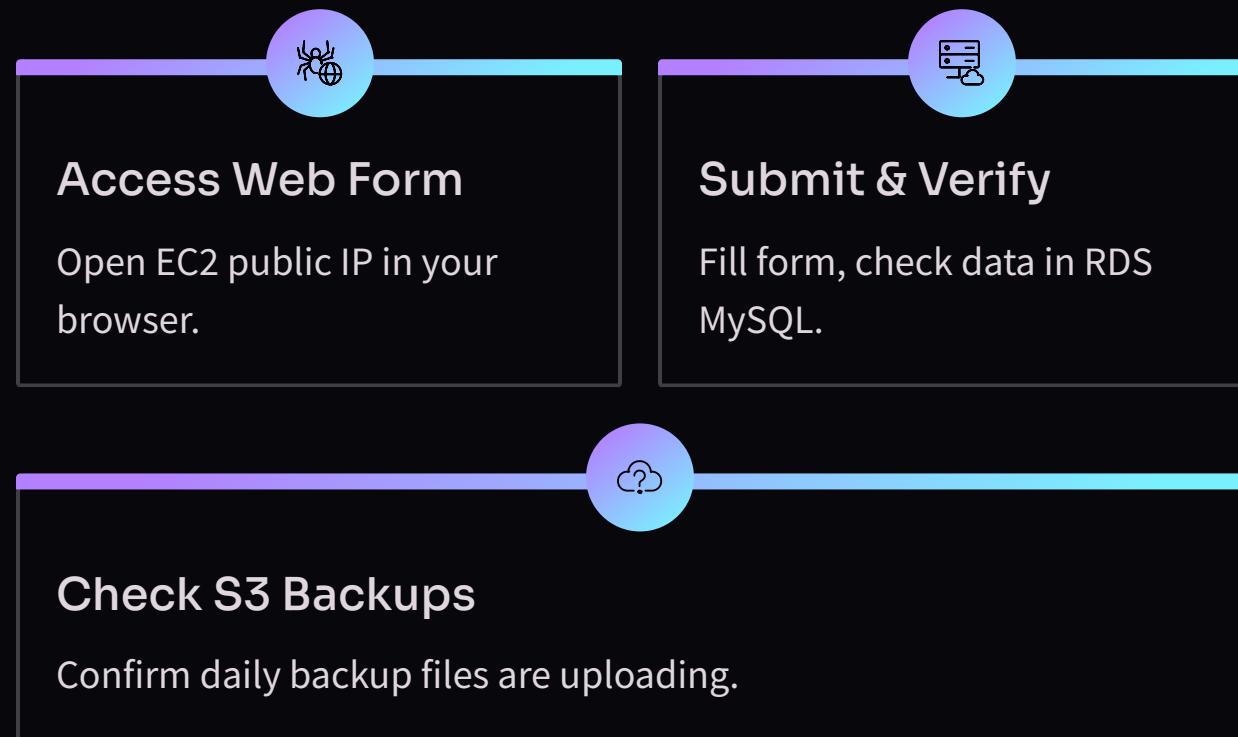
Schedule with Cron

```
0 2 * * * /path/to/backup_script.sh
```

- Run daily at 2 AM

Step 6: Validate Your Setup

Ensuring all components are working seamlessly.



Final Outcome: Your Robust Deployment

A fully functional web application with secure data storage and automated backups.

User Data System: PHP on EC2 collecting user details.

Secure Storage: User data safely in RDS MySQL.

Automated Reliability: Daily database backups to S3.

Questions & Discussion

Thank you!