

# Matias Roje - Terraform exam

<https://github.com/MatiasRoje/dst-terraform-exam.git>

For this exam, I built the entire project independently without using external Terraform modules. This approach helped me deepen my understanding of Terraform by manually managing all outputs, variables, and dependencies. While challenging, the final product is fully functional.

## Real-World Considerations

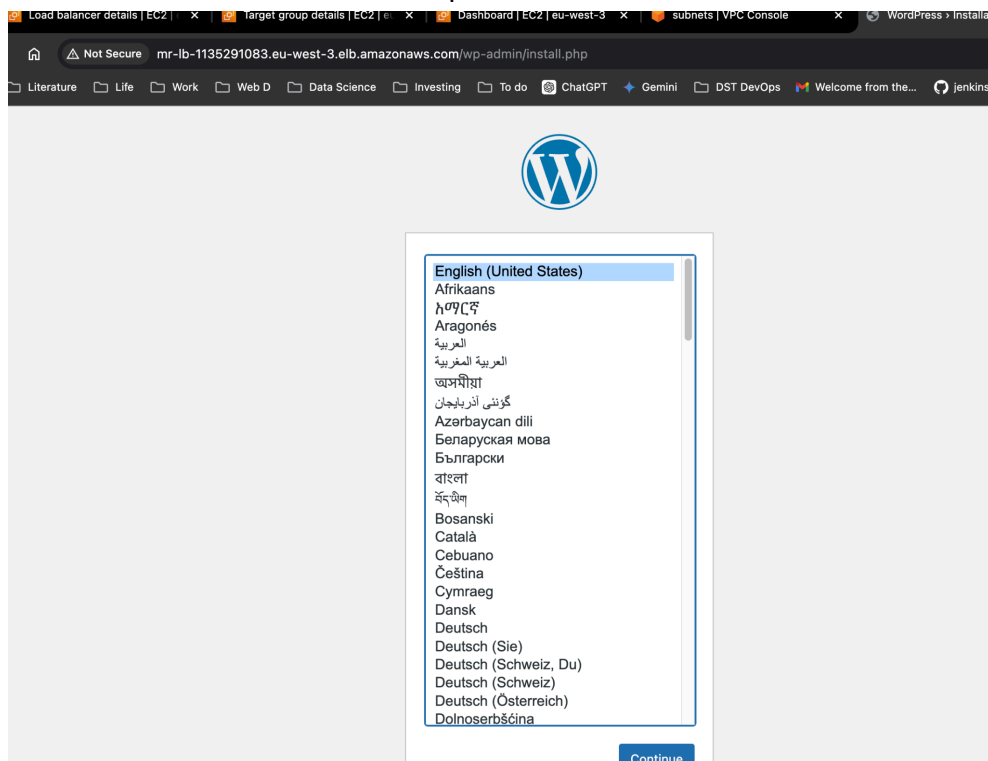
In practice, using Terraform registry modules is often preferred as they are well-tested and follow best practices. However, this exercise enhanced my grasp of Terraform's core concepts and the value of pre-built modules.

## Implementation Details

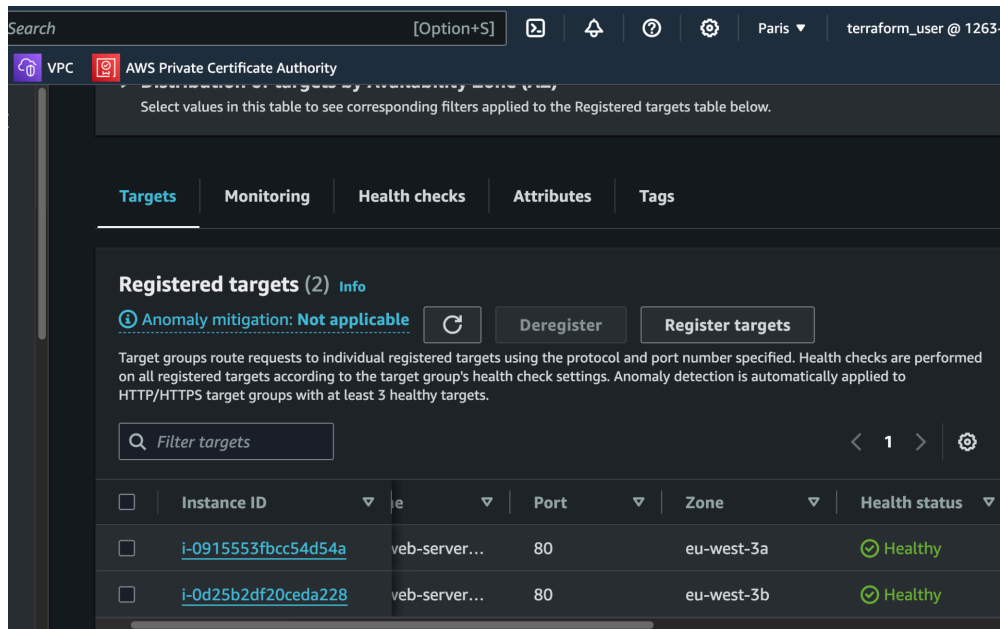
- Database Password: Stored securely in a local `terraform.tfvars` file, added via the Terraform CLI during deployment.
- Webserver Installation: The `install-wordpress.sh` script for Amazon Linux 2023 uses Terraform variables effectively and is working as intended.

## Project Status

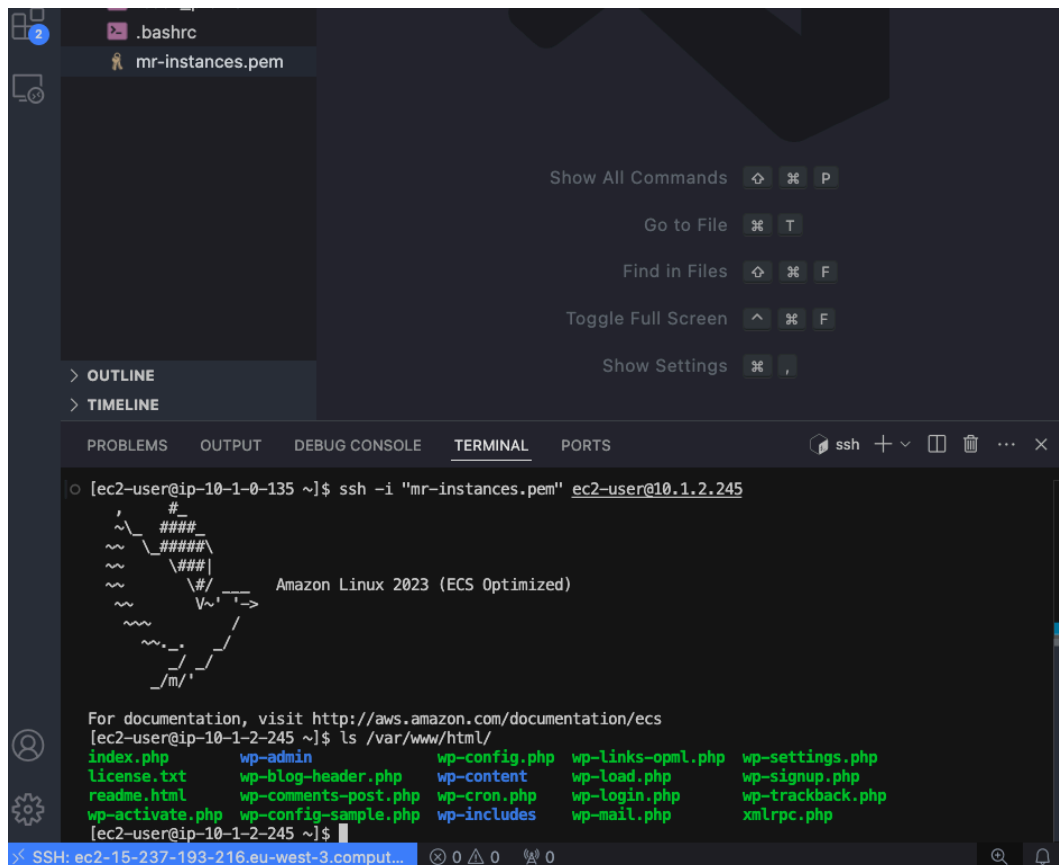
- Load Balancer: Accessible and operational.



- Target Groups: Healthy, directing traffic to Auto Scaling Group instances.



- Bastion Host: Successfully connects to private subnet EC2 instances where WordPress is running.



- Instances & Database: All components are running smoothly.

The screenshot shows the AWS Management Console interface for the 'Instances' page. The top navigation bar includes the AWS logo, a search bar, and the user profile 'terraform\_user @ 1263-1668-61'. The left sidebar shows the 'Instances' link selected. The main content area is titled 'Instances (3)' and includes a 'Launch instances' button. Below this is a search bar and a filter for 'Instance state = running'. A table lists three instances:

	Name	Instance ID	Instance state	Instance type	Status check
<input type="checkbox"/>	mr-bastion-host	i-088825bcd82b6780d	Running	t2.micro	2/2 checks passed
<input type="checkbox"/>	mr-web-server-inst...	i-0915553fbcc54d54a	Running	t2.micro	2/2 checks passed
<input type="checkbox"/>	mr-web-server-inst...	i-0d25b2df20ceda228	Running	t2.micro	2/2 checks passed

The screenshot shows the AWS Management Console interface for the 'RDS > Databases' page. A notification banner at the top suggests creating a Blue/Green Deployment. Below this, the 'Databases (1)' section includes a 'Create database' button and a table listing one database:

	DB identifier	Status	Role	Engi...	Region & ...	Size
<input type="radio"/>	mr-mariadb	Available	Instance	MariaDB	eu-west-3b	db.t3.m

## Conclusion

Thank you for reviewing my exam. This project was a valuable learning experience, and I'm confident the skills gained will be useful in real-world scenarios.