

Matias Roje - Ansible exam

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

For my exam, I used Terraform to create the necessary AWS infrastructure, which includes two EC2 instances running Ubuntu 22.04, the required security groups, and a key-pair for SSH access.

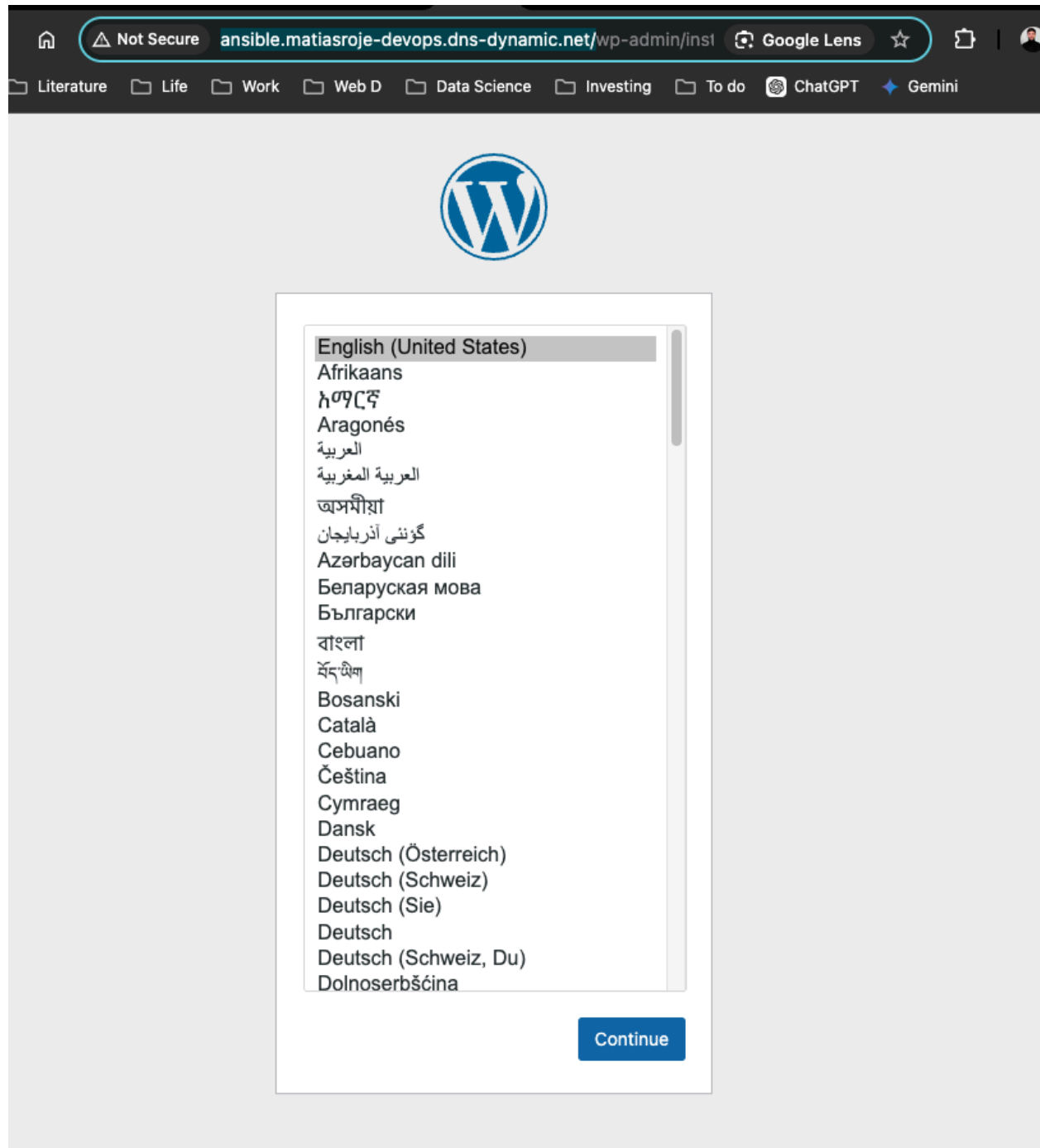
I automated the setup of WordPress (running on Apache) on one instance and MySQL on the other. Initially, I planned to use Magento, but it was challenging to set up despite following the official documentation. To simplify things, I focused on WordPress. I created two separate Ansible roles for deploying both services. While it's possible to use pre-built roles from Ansible Galaxy, I wrote the code myself as required for the exam. The goal wasn't to make it work across all Linux environments—just to meet the exam's scope.

For testing, I used Testinfra along with Pytest. Although I didn't integrate it into Molecule, it functions well as a standalone tool. The tests ensure WordPress can connect to the database, and the site is accessible. The results are logged by running the *run_tests.sh* script, with output stored in *logs.txt*.

Sensitive information is encrypted using Ansible Vault. For the Python test files, I used *dotenv* with a *.env* file (which isn't included in the repository for security reasons).

Screenshots:

- The application running in the browser



- AWS infrastructure


```
ubuntu [SSH: 52.19.220.151]
ORER
... playbook.yml x
NTU [SSH: 52.19.220.151] dst-ansible-exam > playbook.yml
1 ---
2 - name: Install MySQL in Ubuntu Server 22.04 instance
3   hosts: db
4   become: yes
5   vars:
6     db_name: wordpress_db
7     db_username: wp_user
8     db_user_password: !vault |
9       $ANSIBLE_VAULT;1.1;AES256
10      33663035316663613561663433386131303062353038363934643063666166663430646533636433
11      3635343164666166636663356338656563343263396463610a393838636637663331373563373137
12      36616362613766373331663064653337636632393934613530366634323561373235383233666333
13      6566333463326230610a393233333432366537303436336262626661373030613862653862623130
14      35343434623532646439366263623434326264343535616139653530613631666539
15   roles:
16     - mysql
17
18 - name: Install WordPress in Ubuntu Server 22.04
19   hosts: web
20   become: yes
21   vars:
22     wp_db_name: wordpress_db
23     wp_db_user: wp_user
24     wp_db_password: !vault |
25       $ANSIBLE_VAULT;1.1;AES256
26      33663035316663613561663433386131303062353038363934643063666166663430646533636433
27      3635343164666166636663356338656563343263396463610a393838636637663331373563373137
```