

Cloud Engineering Second Semester Examination Project

(Deploy Laravel and Set up Postgresql)

Objective

- Automate the provisioning of two Ubuntu-based servers, named "Master" and "Slave", using Vagrant.
- On the Master node, create a bash script to automate the deployment of a LAMP (Linux, Apache, MySQL, PHP) stack.
- This script should clone a PHP application from GitHub, install all necessary packages, and configure Apache web server and MySQL.
- Ensure the bash script is reusable and readable.
- Using an Ansible playbook:
 1. Execute the bash script on the Slave node and verify that the PHP application is accessible through the VM's IP address (take screenshot of this as evidence)
 2. Create a cron job to check the server's uptime every 12 am.

Requirements

1. Submit the bash script and Ansible playbook to (publicly accessible) GitHub repository.
2. Document the steps with screenshots in md files, including proof of the application's accessibility (screenshots taken where necessary)
3. Use either the VM's IP address or a domain name as the URL.

PHP Laravel GitHub Repository:

<https://github.com/laravel/laravel>

Submission:

Submit your work via the [AltSchool of Cloud Engineering v2 2nd Semester Exam Submission Link](#)

- Push your code to GitHub.
- Share your GitHub link using the submission form.
- Share your cloud credentials using the submission form.

Note:

Create IAM users with minimal privileges for instructors to view instances, firewall rules, and logical networks. If sharing SSH keys is required, do so privately.

Helpful Links:

<https://medium.com/@melihovv/zero-time-deploy-of-laravel-project-with-ansible-3235816676bb>

<https://www.cherryservers.com/blog/how-to-install-and-setup-postgresql-server-on-ubuntu-20-04>

<https://dev.to/sureshramani/how-to-deploy-laravel-project-with-apache-on-ubuntu-36p3>

<https://docs.ansible.com/>

Best of luck!