

Packer and AWS Project for Cloud Engineering Students

Project Title: Golden AMI Pipeline for a Web Server on AWS

Project Goal:

Build a custom Amazon Machine Image (AMI) with Nginx installed using Packer, and launch an EC2 instance from that AMI.

Tools & Technologies:

- Packer
- AWS EC2
- Amazon VPC (default is fine)
- IAM roles/policies
- (Optional: Terraform or AWS CLI for deployment)

Learning Objectives:

- Understand Packer architecture and workflow
- Automate AMI creation
- Provision software inside a machine image
- Use IAM roles securely for automation
- Understand image immutability concepts

Bonus Challenges:

- Add custom index.html to /var/www/html
- Integrate with Terraform to automatically deploy the EC2 instance
- Use Packer Post-Processors to tag the AMI or copy it to another region