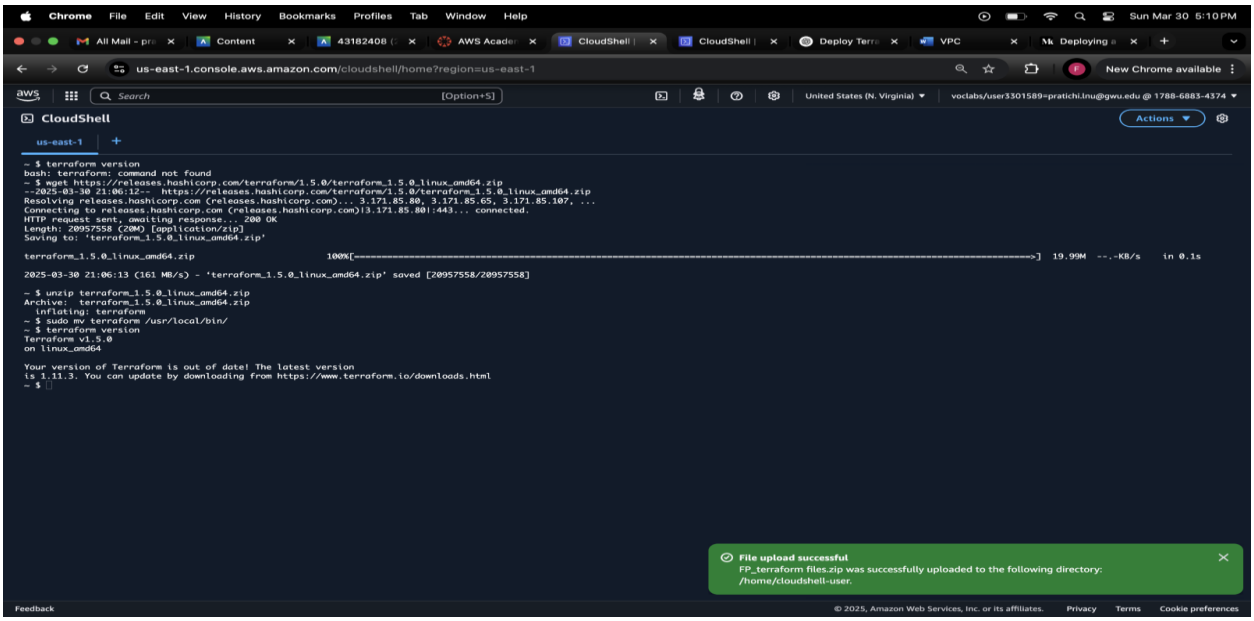
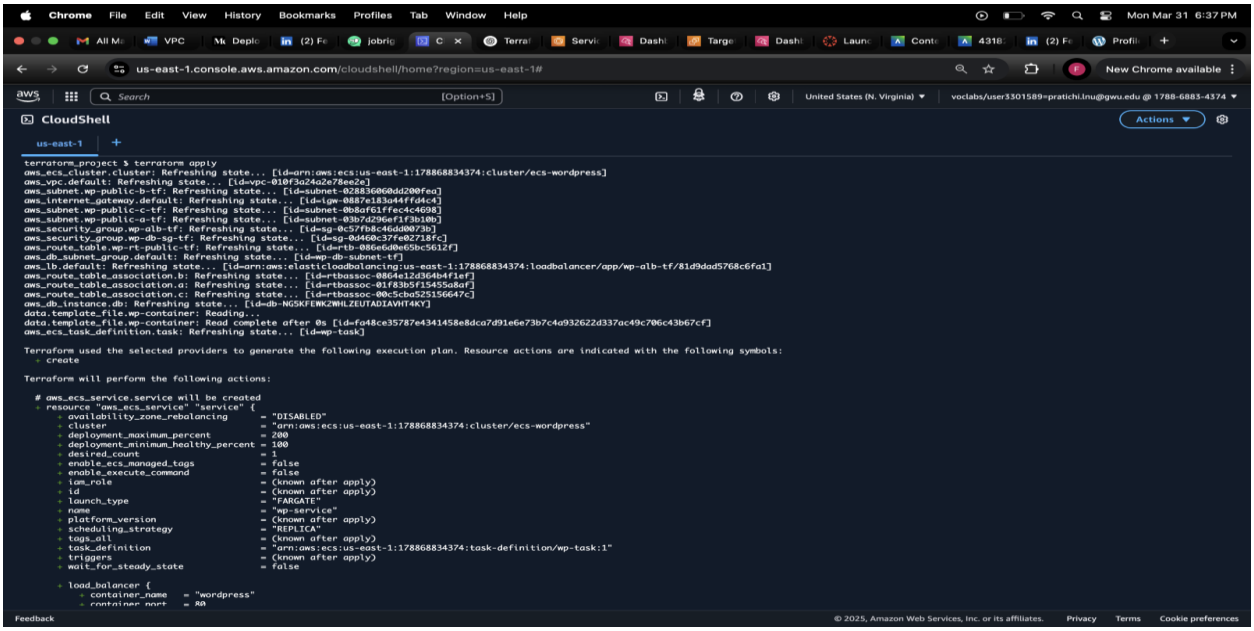
Results:

Deploy the Infrastructure:

1. Use Terraform to deploy the infrastructure on AWS


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Sun Mar 30 5:10 PM
us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1
New Chrome available
CloudShell
Actions
us-east-1
~ $ terraform version
bash: terraform: command not found
~ $ wget https://releases.hashicorp.com/terraform/1.5.0/terraform_1.5.0_linux_amd64.zip
--2025-03-30 21:06:12-- https://releases.hashicorp.com/terraform/1.5.0/terraform_1.5.0_linux_amd64.zip
Resolving releases.hashicorp.com (releases.hashicorp.com)... 3.171.85.80, 3.171.85.65, 3.171.85.107, ...
Connecting to releases.hashicorp.com (releases.hashicorp.com)|3.171.85.80|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 20957558 (20M) [application/zip]
Saving to: 'terraform_1.5.0_linux_amd64.zip'
terraform_1.5.0_linux_amd64.zip 100%[==========>] 19.99M --.-KB/s in 0.1s
2025-03-30 21:06:13 (161 MB/s) - 'terraform_1.5.0_linux_amd64.zip' saved [20957558/20957558]
~ $ unzip terraform_1.5.0_linux_amd64.zip
Archive: terraform_1.5.0_linux_amd64.zip
inflating: terraform
~ $ sudo mv terraform /usr/local/bin/
~ $ terraform version
Terraform v1.5.0
on linux_amd64
Your version of Terraform is out of date! The latest version
is 1.11.3. You can update by downloading from https://www.terraform.io/downloads.html
~ $
File upload successful
FP_terraform files.zip was successfully uploaded to the following directory:
/home/cloudshell-user.
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon Mar 31 6:37 PM
us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1#
New Chrome available
CloudShell
Actions
us-east-1
terratorm_project $ terraform apply
aws_ecs_cluster.cluster: Refreshing state... [id=arn:aws:ecs:us-east-1:178868834374:cluster/ecs-wordpress]
aws_vpc.default: Refreshing state... [id=vpc-010f3a24a2e78ee2e]
aws_subnet.wp-public-b-tf: Refreshing state... [id=subnet-02883606ddd200fea]
aws_internet_gateway.default: Refreshing state... [id=igw-0887e183a44ffd4c4]
aws_subnet.wp-public-c-tf: Refreshing state... [id=subnet-0b8af61ffec4c4698]
aws_subnet.wp-public-a-tf: Refreshing state... [id=subnet-03b7d296ef1f3b10b]
aws_security_group.wp-alb-tf: Refreshing state... [id=sg-0c57fb8c46dd0073b]
aws_security_group.wp-db-sg-tf: Refreshing state... [id=sg-0d460c37fe02718fc]
aws_route_table.wp-rt-public-tf: Refreshing state... [id=rtb-086e6d0e65bc5612f]
aws_db_subnet_group.default: Refreshing state... [id=wp-db-subnet-tf]
aws_lb.default: Refreshing state... [id=arn:aws:elasticloadbalancing:us-east-1:178868834374:loadbalancer/app/wp-alb-tf/81d9dad5768c6fa1]
aws_route_table_association.b: Refreshing state... [id=rtbassoc-0864e12d364b4f1ef]
aws_route_table_association.a: Refreshing state... [id=rtbassoc-01f83b5f15455a8af]
aws_route_table_association.c: Refreshing state... [id=rtbassoc-00c5cba525156647c]
aws_db_instance.db: Refreshing state... [id=db-NG5KFEWK2WHLZEUTADIAVHT4KY]
data.template_file.wp-container: Reading...
data.template_file.wp-container: Read complete after 0s [id=fa48ce35787e4341458e8dca7d91e6e73b7c4a932622d337ac49c706c43b67cf]
aws_ecs_task_definition.task: Refreshing state... [id=wp-task]
Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
+ create
Terraform will perform the following actions:
# aws_ecs_service.service will be created
+ resource "aws_ecs_service" "service" {
+ availability_zone_rebalancing = "DISABLED"
+ cluster = "arn:aws:ecs:us-east-1:178868834374:cluster/ecs-wordpress"
+ deployment_maximum_percent = 200
+ deployment_minimum_healthy_percent = 100
+ desired_count = 1
+ enable_ecs_managed_tags = false
+ enable_execute_command = false
+ iam_role = (known after apply)
+ id = (known after apply)
+ launch_type = "FARGATE"
+ name = "wp-service"
+ platform_version = (known after apply)
+ scheduling_strategy = "REPLICA"
+ tags_all = (known after apply)
+ task_definition = "arn:aws:ecs:us-east-1:178868834374:task-definition/wp-task:1"
+ triggers = (known after apply)
+ wait_for_steady_state = false
+ load_balancer {
+ container_name = "wordpress"
+ container_port = 80
Feedback
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Privacy
Terms
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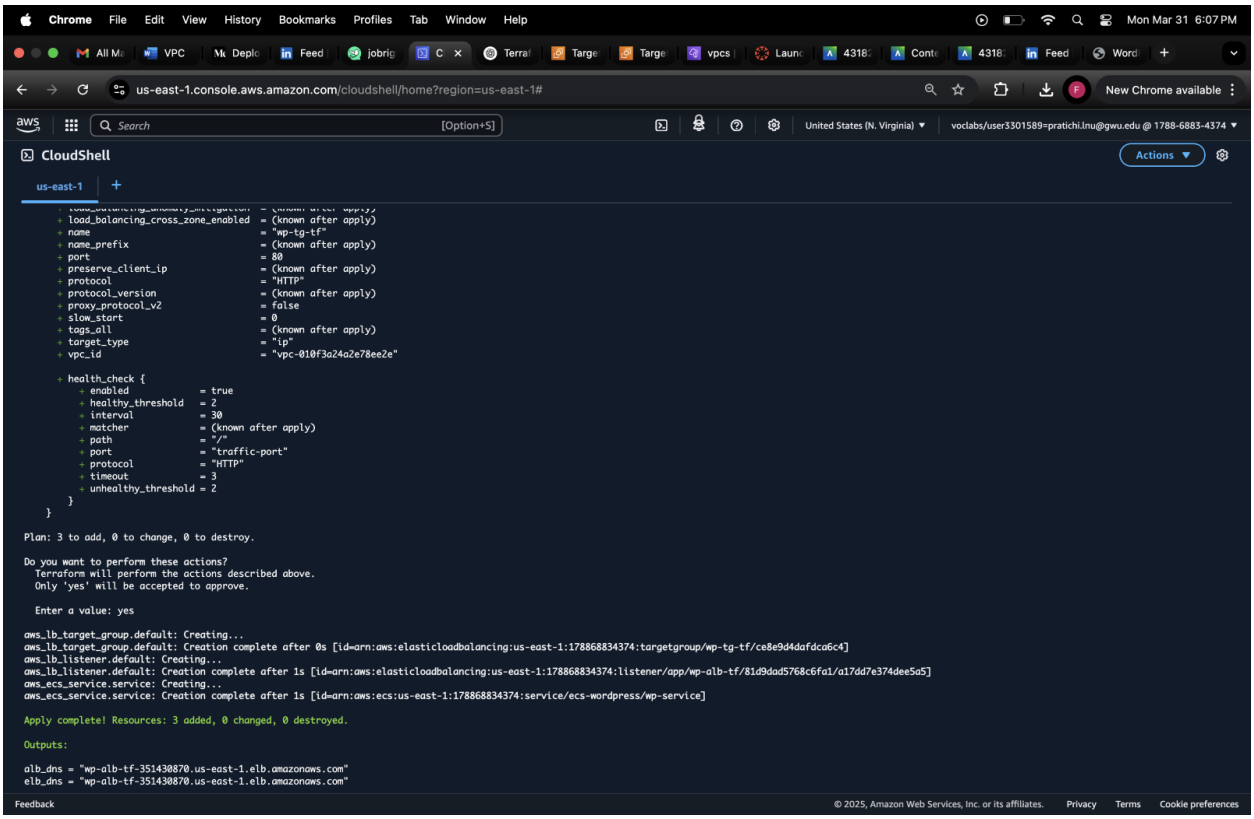
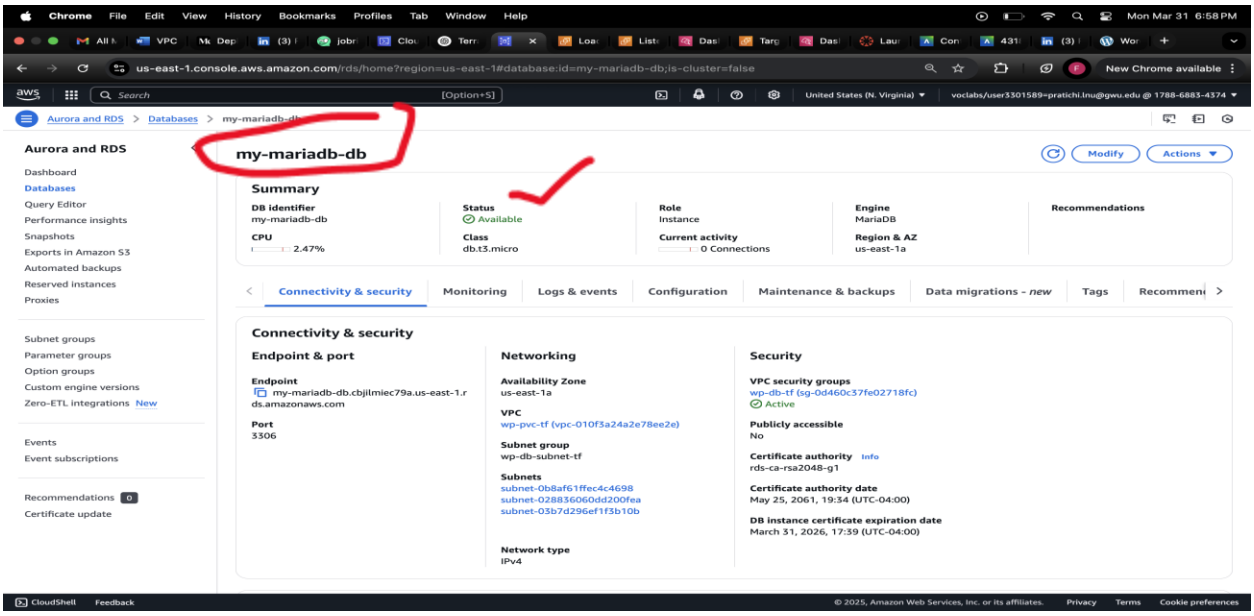


2. Verify that the infrastructure is deployed successfully (e.g., ALB, ECS tasks, RDS instance).


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon Mar 31 6:58 PM
us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#database:id=my-mariadb-db;is-cluster=false
New Chrome available
Aurora and RDS > Databases > my-mariadb-db
Aurora and RDS
Dashboard
Databases
Query Editor
Performance insights
Snapshots
Exports in Amazon S3
Automated backups
Reserved instances
Proxies
Subnet groups
Parameter groups
Option groups
Custom engine versions
Zero-ETL integrations New
Events
Event subscriptions
Recommendations 0
Certificate update
my-mariadb-db
Modify
Actions
Summary
DB identifier
my-mariadb-db
Status
Available
Role
Instance
Engine
MariaDB
Recommendations
CPU
2.47%
Class
db.t3.micro
Current activity
0 Connections
Region & AZ
us-east-1a
Connectivity & security
Monitoring
Logs & events
Configuration
Maintenance & backups
Data migrations - new
Tags
Connectivity & security
Endpoint & port
Endpoint
my-mariadb-db.cbjilmiec79a.us-east-1.rds.amazonaws.com
Port
3306
Networking
Availability Zone
us-east-1a
VPC
wp-pvc-tf (vpc-010f3a24a2e78ee2e)
Subnet group
wp-db-subnet-tf
Subnets
subnet-0b8af61ffec4c4698
subnet-028836060dd200fea
subnet-03b7d296ef1f3b10b
Network type
IPv4
Security
VPC security groups
wp-db-tf (sg-0d460c37fe02718fc)
Active
Publicly accessible
No
Certificate authority Info
rds-ca-rsa2048-g1
Certificate authority date
May 25, 2061, 19:34 (UTC-04:00)
DB instance certificate expiration date
March 31, 2026, 17:39 (UTC-04:00)
CloudShell Feedback
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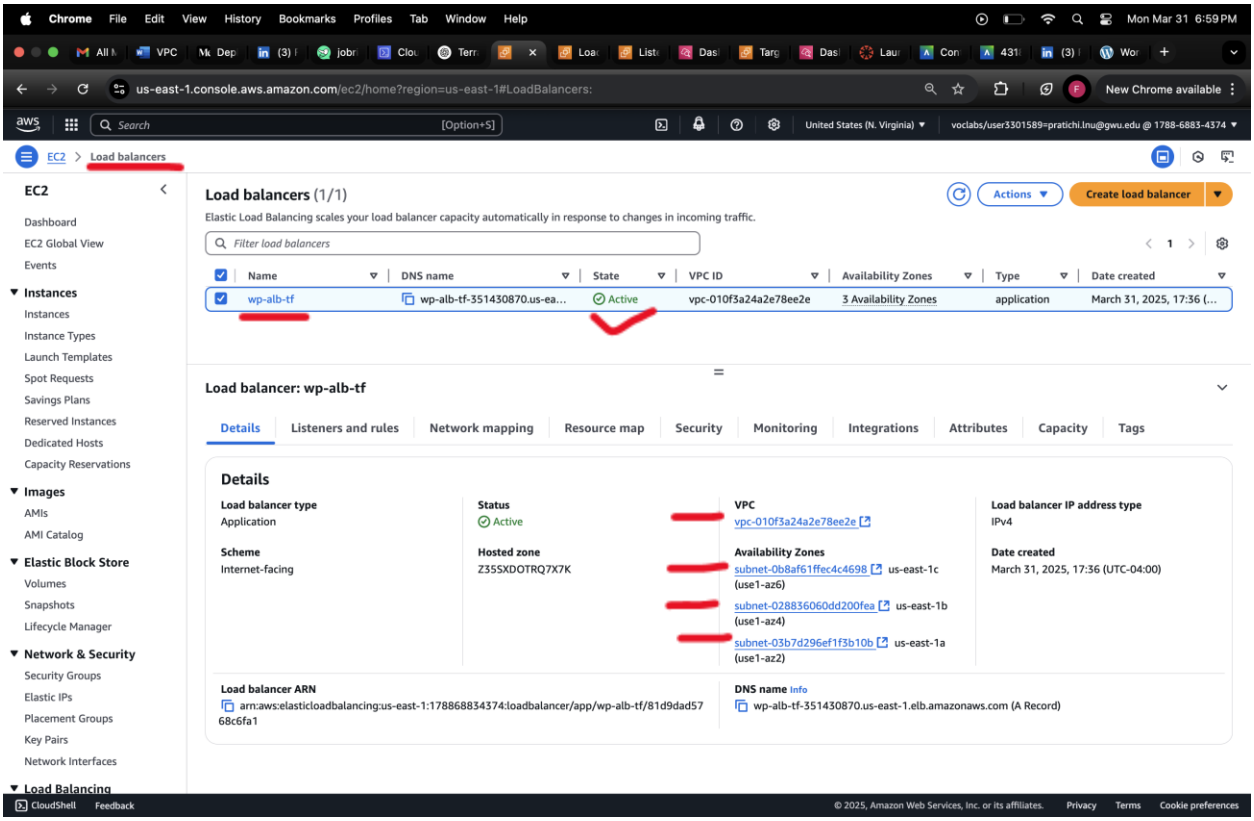
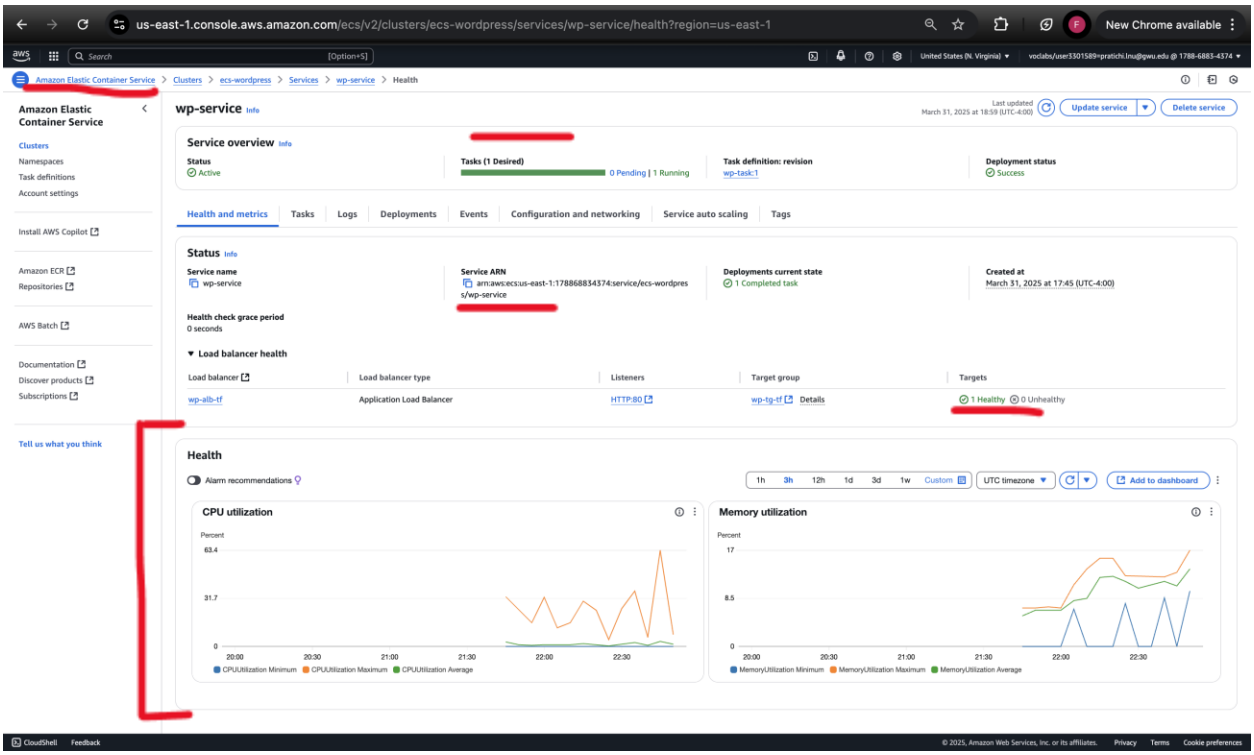
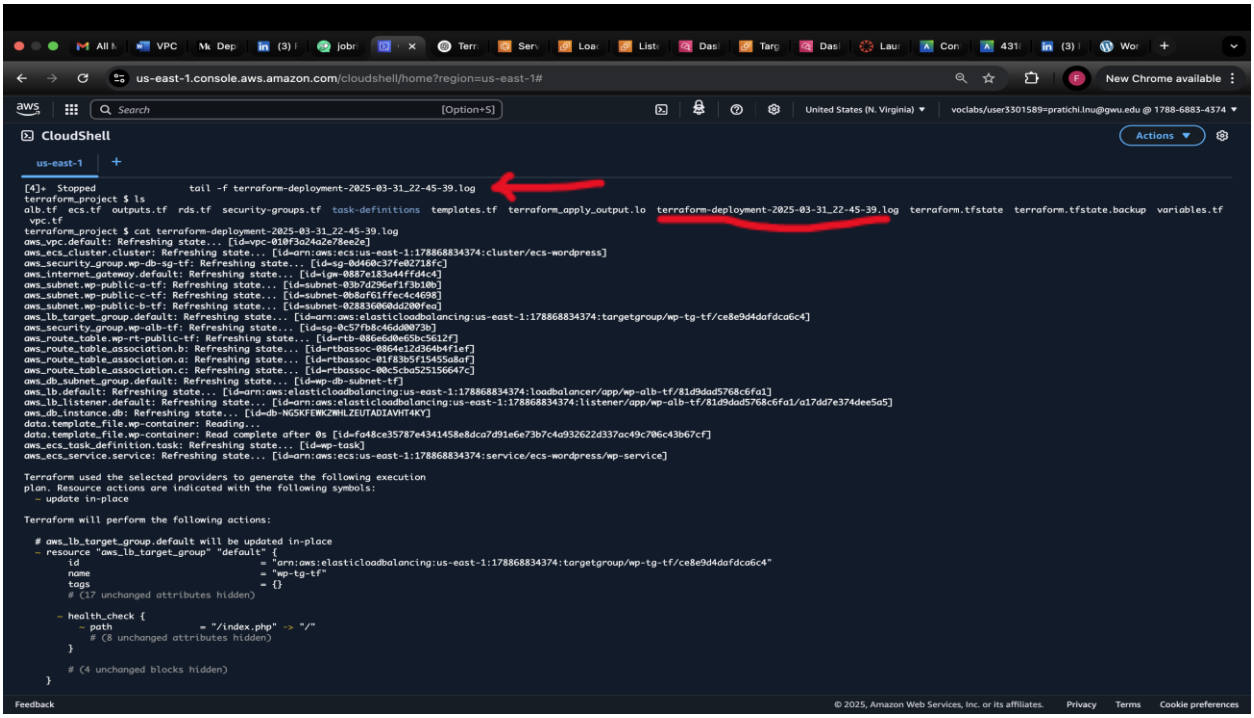
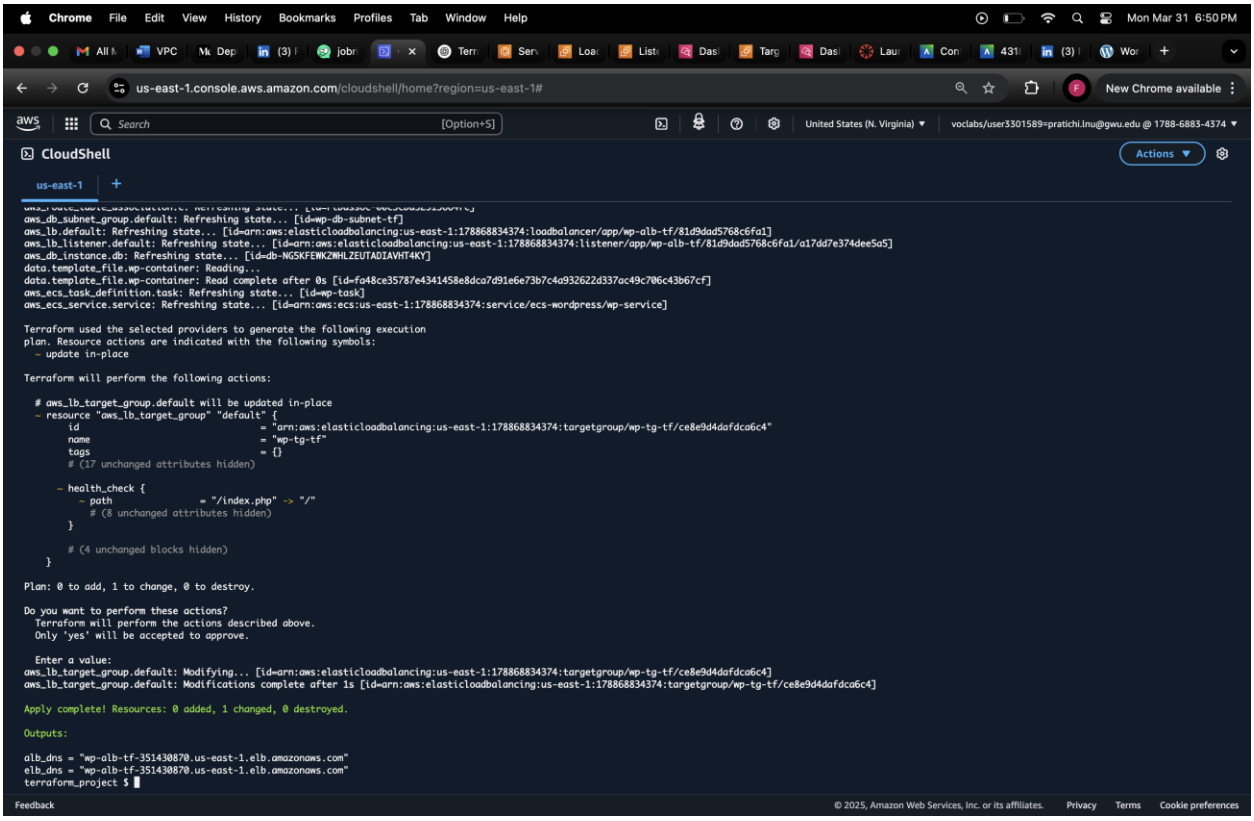

Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon Mar 31 6:59 PM
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LoadBalancers:
New Chrome available
EC2 > Load balancers
EC2
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Load Balancing
Load balancers (1/1)
Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.
Actions
Create load balancer
Filter load balancers
Name
DNS name
State
VPC ID
Availability Zones
Type
Date created
wp-alb-tf
wp-alb-tf-351430870.us-ea...
Active
vpc-010f3a24a2e78ee2e
3 Availability Zones
application
March 31, 2025, 17:36 (...
Load balancer: wp-alb-tf
Details
Listeners and rules
Network mapping
Resource map
Security
Monitoring
Integrations
Attributes
Capacity
Tags
Details
Load balancer type
Application
Status
Active
VPC
vpc-010f3a24a2e78ee2e
Load balancer IP address type
IPv4
Scheme
Internet-facing
Hosted zone
Z35SXDOTRQ7X7K
Availability Zones
subnet-0b8af61ffec4c4698 us-east-1c (use1-az6)
subnet-028836060dd200fea us-east-1b (use1-az4)
subnet-03b7d296ef1f3b10b us-east-1a (use1-az2)
Date created
March 31, 2025, 17:36 (UTC-04:00)
Load balancer ARN
arn:aws:elasticloadbalancing:us-east-1:178868834374:loadbalancer/app/wp-alb-tf/81d9dad5768c6fa1
DNS name Info
wp-alb-tf-351430870.us-east-1.elb.amazonaws.com (A Record)
CloudShell Feedback
© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences



3. **Log the deployment details**, including date and time, and the output of Terraform commands used for deployment.

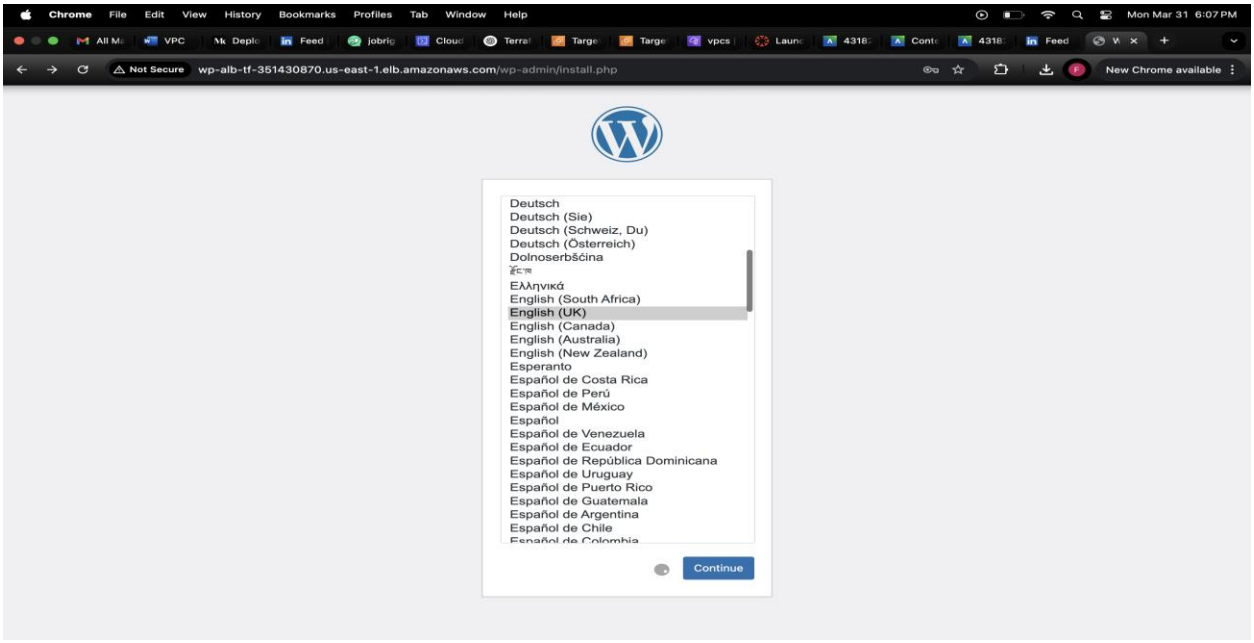
Log file using timestamp: tail -f terraform-deployment-2025-03-31_22-45-39.log

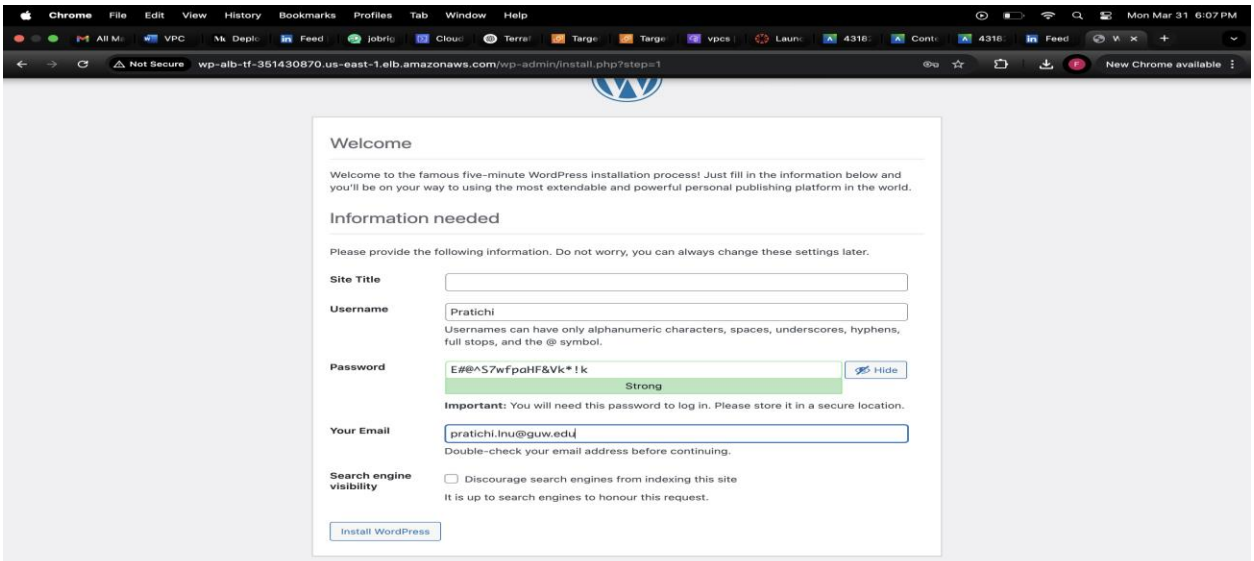


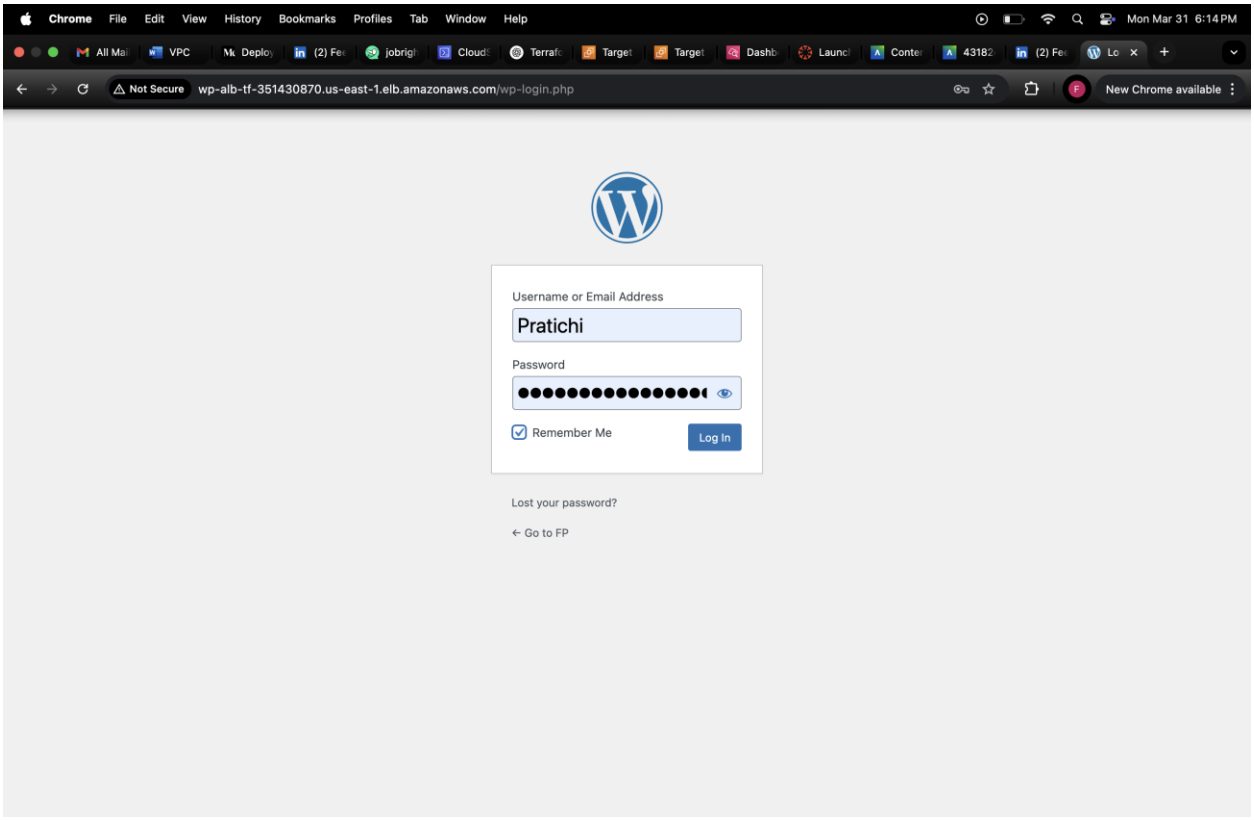


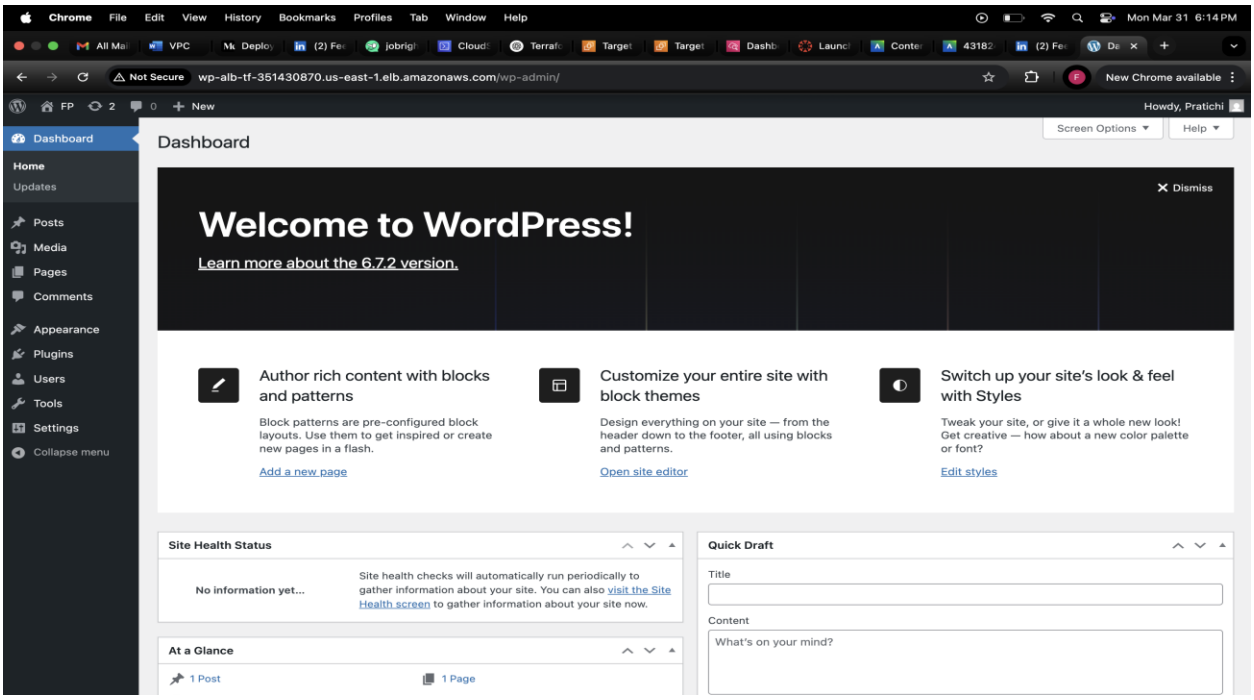
Test the WordPress Application:

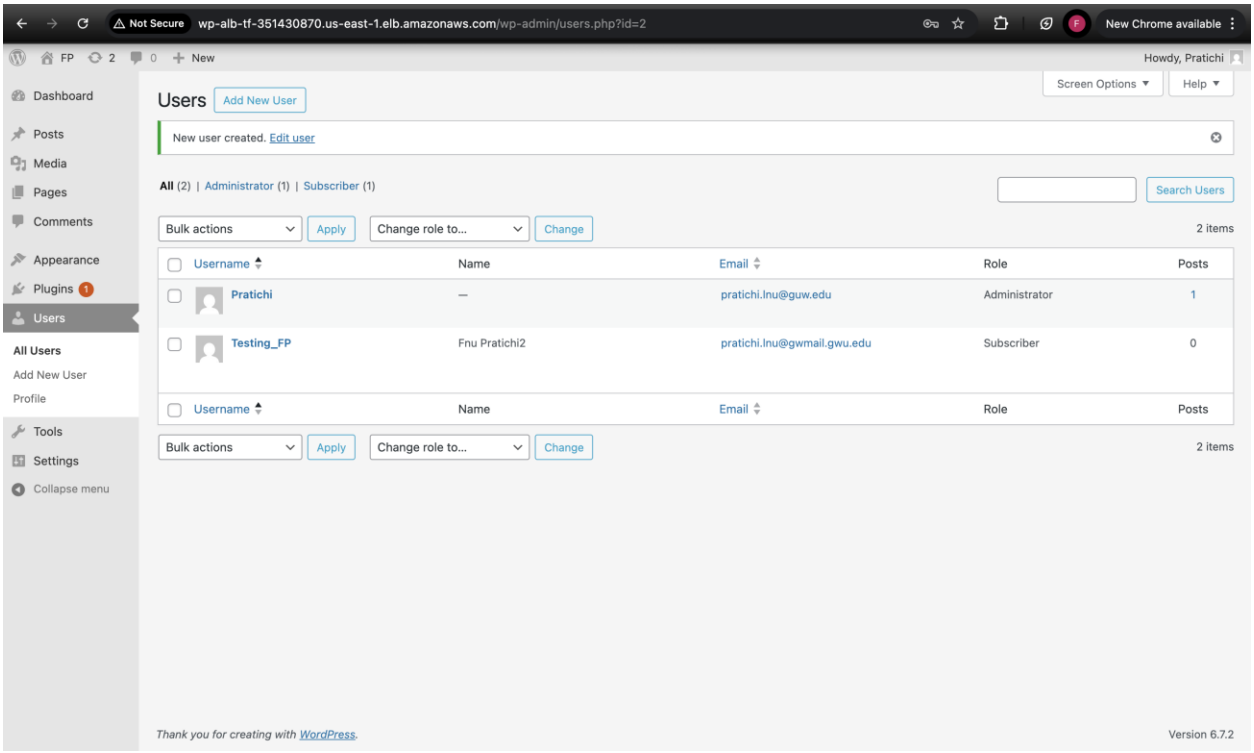
1. Use the ALB DNS name to access the WordPress application via a web browser.
2. Ensure the application is functional and properly connected to the RDS database.



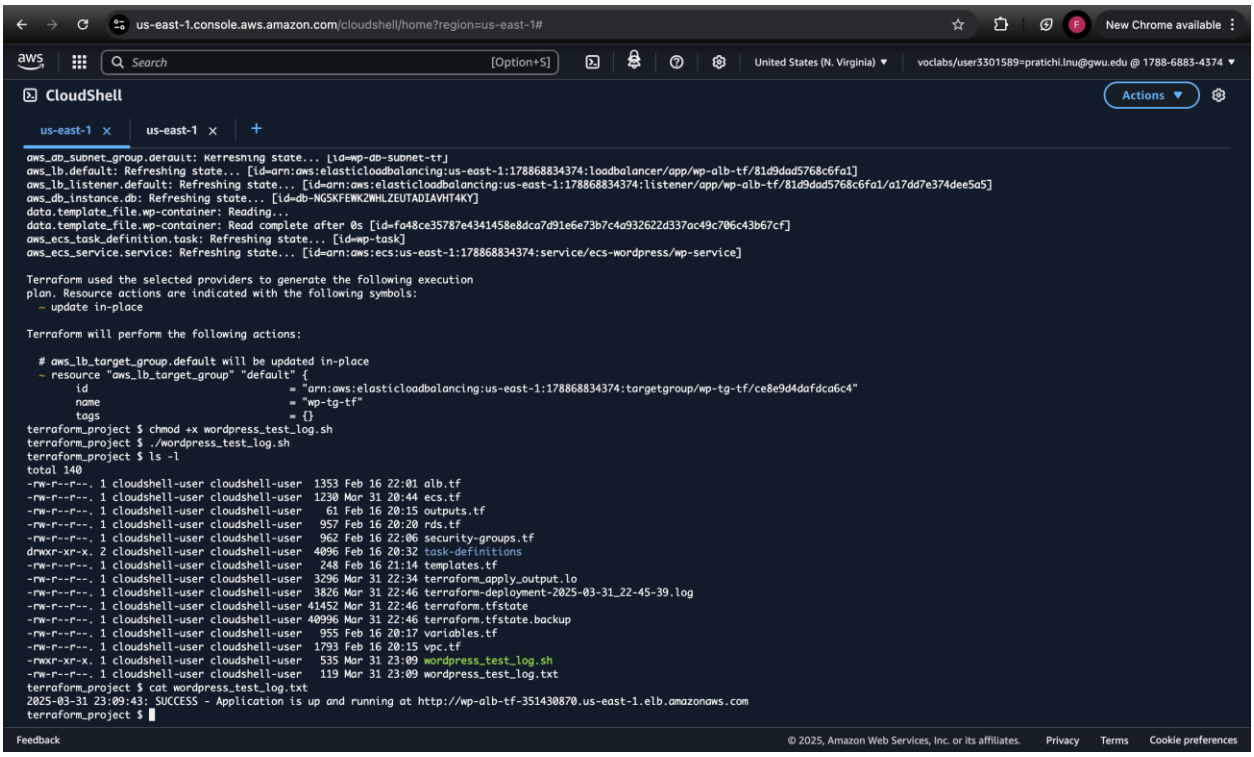

Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon Mar 31 6:07 PM
Not Secure
wp-alb-tf-351430870.us-east-1.elb.amazonaws.com/wp-admin/install.php?step=1
New Chrome available
Welcome
Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.
Information needed
Please provide the following information. Do not worry, you can always change these settings later.
Site Title
Username
Pratichi
Usernames can have only alphanumeric characters, spaces, underscores, hyphens, full stops, and the @ symbol.
Password
E#@^S7wfpaHF&Vk*!k
Hide
Strong
Important: You will need this password to log in. Please store it in a secure location.
Your Email
pratichi.lnu@guw.edu
Double-check your email address before continuing.
Search engine visibility
Discourage search engines from indexing this site
It is up to search engines to honour this request.
Install WordPress


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon Mar 31 6:14 PM
Not Secure
wp-alb-tf-351430870.us-east-1.elb.amazonaws.com/wp-login.php
New Chrome available
Username or Email Address
Pratichi
Password
Remember Me
Log In
Lost your password?
← Go to FP



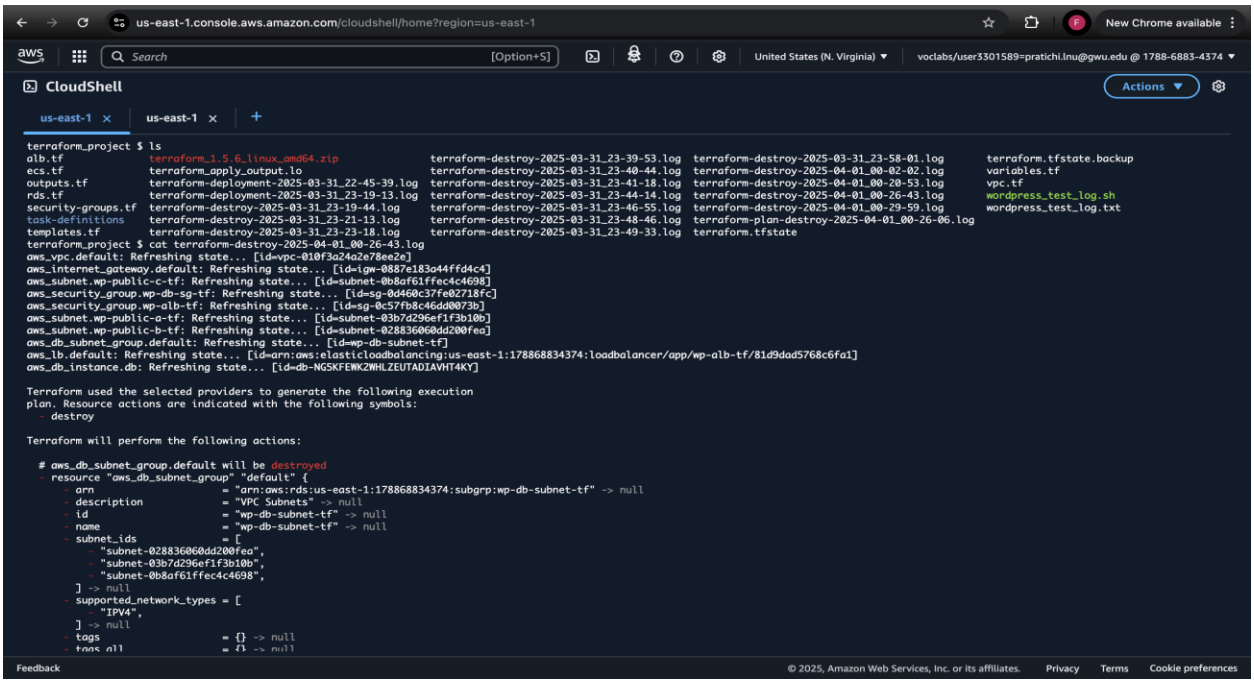


4. **Log the results**, noting any issues or successful tests along with the time and date.



Destroy the Infrastructure:

terraform-destroy-2025-04-01_00-26-43.log


us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1
New Chrome available
Search
[Option+S]
United States (N. Virginia)
voclabs/user3301589=pratichi.lnu@gwu.edu @ 1788-6883-4374
CloudShell
Actions
us-east-1
us-east-1
terraform_project $ ls
alb.tf terraform_1.5.6_linux_amd64.zip terraform-destroy-2025-03-31_23-39-53.log terraform-destroy-2025-03-31_23-58-01.log terraform.tfstate.backup
ecs.tf terraform_apply_output.lo terraform-destroy-2025-03-31_23-40-44.log terraform-destroy-2025-04-01_00-02-02.log variables.tf
outputs.tf terraform-deployment-2025-03-31_22-45-39.log terraform-destroy-2025-03-31_23-41-18.log terraform-destroy-2025-04-01_00-20-53.log vpc.tf
rds.tf terraform-deployment-2025-03-31_23-19-13.log terraform-destroy-2025-03-31_23-44-14.log terraform-destroy-2025-04-01_00-26-43.log wordpress_test_log.sh
security-groups.tf terraform-destroy-2025-03-31_23-19-44.log terraform-destroy-2025-03-31_23-46-55.log terraform-destroy-2025-04-01_00-29-59.log wordpress_test_log.txt
task-definitions terraform-destroy-2025-03-31_23-21-13.log terraform-destroy-2025-03-31_23-48-46.log terraform-plan-destroy-2025-04-01_00-26-06.log
templates.tf terraform-destroy-2025-03-31_23-23-18.log terraform-destroy-2025-03-31_23-49-33.log terraform.tfstate
terraform_project $ cat terraform-destroy-2025-04-01_00-26-43.log
aws_vpc.default: Refreshing state... [id=vpc-010f3a24a2e78ee2e]
aws_internet_gateway.default: Refreshing state... [id=igw-0887e183a44ffd4c4]
aws_subnet.wp-public-c-tf: Refreshing state... [id=subnet-0b8af61ffec4c4698]
aws_security_group.wp-db-sg-tf: Refreshing state... [id=sg-0d460c37fe02718fc]
aws_security_group.wp-alb-tf: Refreshing state... [id=sg-0c57fb8c46dd0073b]
aws_subnet.wp-public-a-tf: Refreshing state... [id=subnet-03b7d296ef1f3b10b]
aws_subnet.wp-public-b-tf: Refreshing state... [id=subnet-028836060dd200fea]
aws_db_subnet_group.default: Refreshing state... [id=wp-db-subnet-tf]
aws_lb.default: Refreshing state... [id=arn:aws:elasticloadbalancing:us-east-1:178868834374:loadbalancer/app/wp-alb-tf/81d9dad5768c6fa1]
aws_db_instance.db: Refreshing state... [id=db-NGSKFEWK2WHLZEUTADIAVHT4KY]
Terraform used the selected providers to generate the following execution
plan. Resource actions are indicated with the following symbols:
- destroy
Terraform will perform the following actions:
# aws_db_subnet_group.default will be destroyed
- resource "aws_db_subnet_group" "default" {
- arn = "arn:aws:rds:us-east-1:178868834374:subgrp:wp-db-subnet-tf" -> null
- description = "VPC Subnets" -> null
- id = "wp-db-subnet-tf" -> null
- name = "wp-db-subnet-tf" -> null
- subnet_ids = [
- "subnet-028836060dd200fea",
- "subnet-03b7d296ef1f3b10b",
- "subnet-0b8af61ffec4c4698",
] -> null
- supported_network_types = [
- "IPV4",
] -> null
- tags = {} -> null
- tags_all = {} -> null
Feedback
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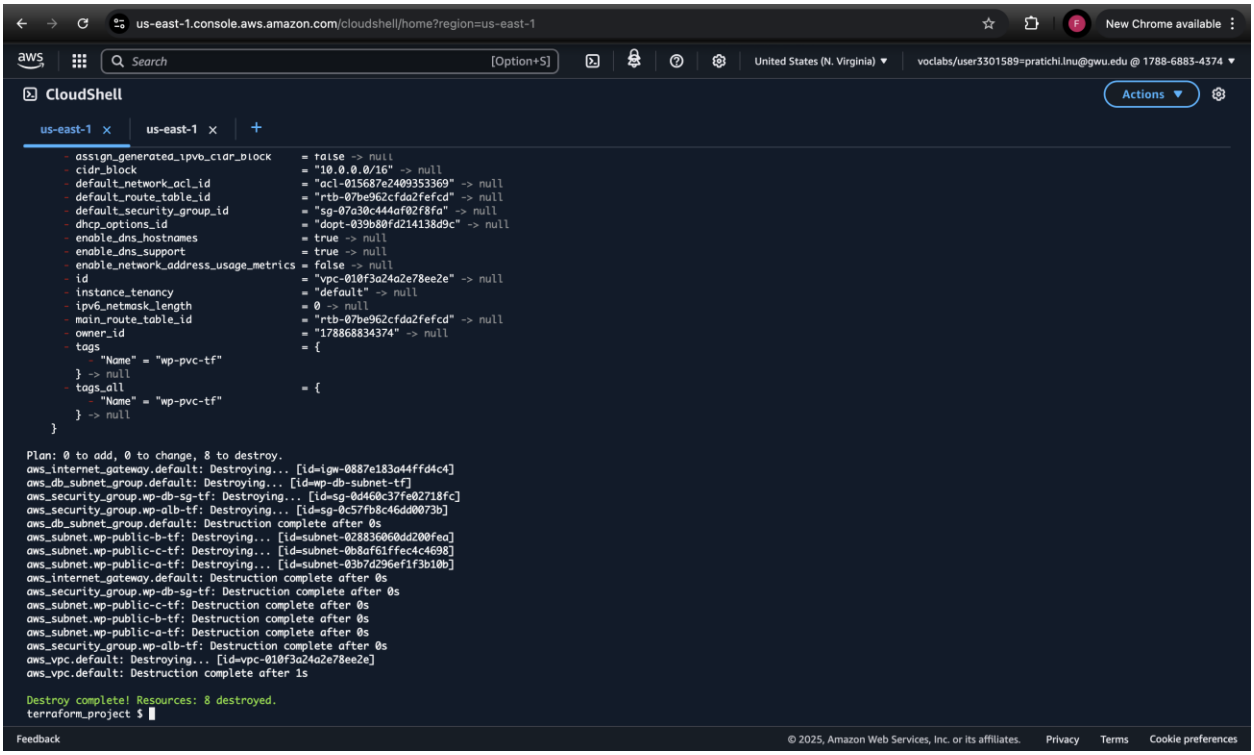
Privacy
Terms
Cookie preferences


us-east-1.console.aws.amazon.com/cloudshell/home?region=us-east-1
New Chrome available
Search
[Option+S]
United States (N. Virginia)
voclabs/user3301589=pratichi.lnu@gwu.edu @ 1788-6883-4374
CloudShell
Actions
us-east-1
us-east-1
- assign_generated_ipv6_cidr_block = false -> null
- cidr_block = "10.0.0.0/16" -> null
- default_network_acl_id = "acl-015687e2409353369" -> null
- default_route_table_id = "rtb-07be962cfda2fefcd" -> null
- default_security_group_id = "sg-07a30c444af02f8fa" -> null
- dhcp_options_id = "dopt-039b80fd214138d9c" -> null
- enable_dns_hostnames = true -> null
- enable_dns_support = true -> null
- enable_network_address_usage_metrics = false -> null
- id = "vpc-010f3a24a2e78ee2e" -> null
- instance_tenancy = "default" -> null
- ipv6_netmask_length = 0 -> null
- main_route_table_id = "rtb-07be962cfda2fefcd" -> null
- owner_id = "178868834374" -> null
- tags = {
"Name" = "wp-pvc-tf"
} -> null
- tags_all = {
- "Name" = "wp-pvc-tf"
} -> null
}
Plan: 0 to add, 0 to change, 8 to destroy.
aws_internet_gateway.default: Destroying... [id=igw-0887e183a44ffd4c4]
aws_db_subnet_group.default: Destroying... [id=wp-db-subnet-tf]
aws_security_group.wp-db-sg-tf: Destroying... [id=sg-0d460c37fe02718fc]
aws_security_group.wp-alb-tf: Destroying... [id=sg-0c57fb8c46dd0073b]
aws_db_subnet_group.default: Destruction complete after 0s
aws_subnet.wp-public-b-tf: Destroying... [id=subnet-028836060dd200fea]
aws_subnet.wp-public-c-tf: Destroying... [id=subnet-0b8af61ffec4c4698]
aws_subnet.wp-public-a-tf: Destroying... [id=subnet-03b7d296ef1f3b10b]
aws_internet_gateway.default: Destruction complete after 0s
aws_security_group.wp-db-sg-tf: Destruction complete after 0s
aws_subnet.wp-public-c-tf: Destruction complete after 0s
aws_subnet.wp-public-b-tf: Destruction complete after 0s
aws_subnet.wp-public-a-tf: Destruction complete after 0s
aws_security_group.wp-alb-tf: Destruction complete after 0s
aws_vpc.default: Destroying... [id=vpc-010f3a24a2e78ee2e]
aws_vpc.default: Destruction complete after 1s
Destroy complete! Resources: 8 destroyed.
terraform_project $
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