

# High CPU Usage on EC2

- Your production EC2 instance CPU spiked to 100%.
- Steps:
  - 1. Check CloudWatch CPU metrics
  - 2. SSH and run `top`, `df -h`, `free -m`
  - 3. Restart only affected services
  - 4. Scale instance or enable Auto Scaling
  - 5. Apply long-term optimization

# App Running but Not Accessible

- Application works inside EC2 but not in browser.
- Check:
  - - Security Group ports (80/443/8080)
  - - NACL rules
  - - Load Balancer health checks
  - - Web server status (nginx/httpd)
  - - Logs for errors

# Jenkins Pipeline Failure

- Pipeline fails in build stage.
- Troubleshooting:
  - - Check console output
  - - Validate Git credentials
  - - Ensure agent/node is online
  - - Clean workspace and rebuild
  - - Check Maven dependencies

# Docker Container Running but Not Accessible

- Troubleshooting:
  - - Confirm port mapping `docker ps`
  - - Use `docker logs <container>`
  - - Ensure app binds to 0.0.0.0
  - - If in Kubernetes, check Service type and endpoints

# Kubernetes CrashLoopBackOff

- Fix:
  - - `kubectl describe pod <pod>`
  - - `kubectl logs <pod>`
  - - Check image tag, env vars, probes, resources
  - - Fix and redeploy

# Kubernetes Pod Pending

- Root causes:
- - Insufficient node resources
- - NodeSelector / Taints issue
- - PVC StorageClass issue
- Check with `kubectl describe pod`.

# Terraform Showing Changes Unexpectedly

- Reason: State drift.
- Fix:
  - - `terraform refresh`
  - - Use remote backend (S3 + DynamoDB lock)
  - - Avoid manual infra changes.

# Blue-Green Deployment

- Two environments: Blue (current) & Green (new).
- Deploy to Green → Test → Switch traffic.
- Rollback is instant by switching back to Blue.

# RDS Storage Full

- Fix:
  - - Enable storage autoscaling
  - - Take snapshot
  - - Increase allocated storage
  - - Enable alerts via CloudWatch.

# S3 Access Denied

- Check bucket policy and IAM role permissions.
- Ensure `s3:GetObject` allowed.
- Avoid public buckets unless needed.