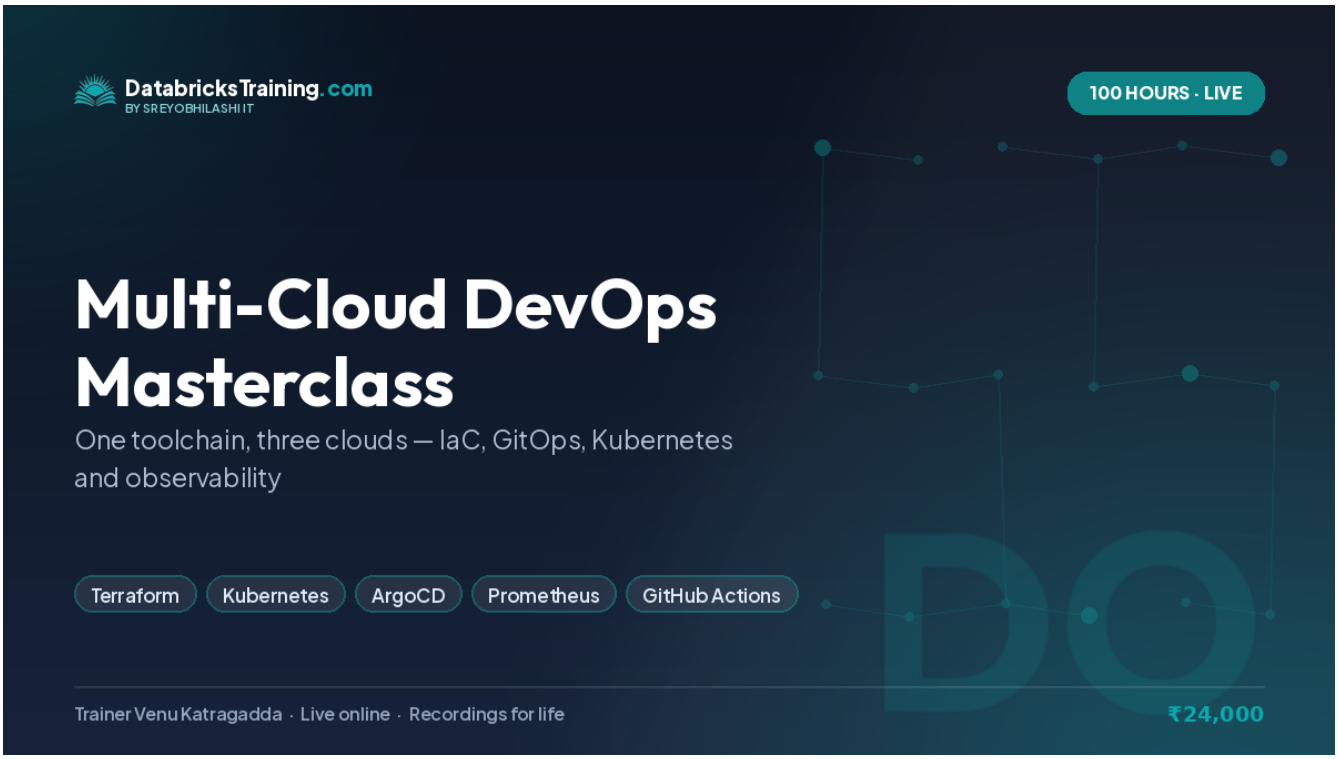


COURSE SYLLABUS

# Multi-Cloud DevOps Masterclass

One toolchain, three clouds. Build a real platform: IaC, GitOps, Kubernetes, observability and security — not a tutorial pipeline.

| 100 hours | 10 modules | 3 projects | **₹24,000** |
|---|---|---|---|
| LIVE INSTRUCTION | STRUCTURED PATH | PORTFOLIO READY | EMI AVAILABLE |

| | |
|---|---|
| Level | Beginner to Advanced |
| Mode | Live, instructor-led online sessions. Every session recorded; lifetime access. |
| Trainer | Venu Katragadda — 14+ years in industry (L&T Infotech, Capgemini, Brillio, Manthan Systems). 1,200+ professionals trained. |
| Batch timings | Morning 6:00–7:30 AM IST · Morning 7:30–9:00 AM IST · Evening 7:30–9:00 PM IST · Weekend (Sat & Sun) |
| Certification | HashiCorp Terraform Associate · CKA concepts · AZ-400 concepts |
| Enquiries | +91-8500002025 / +91-9247159150 (WhatsApp) · info@databrickstraining.com |

## What you will be able to do

Every outcome below is demonstrated in a lab or a graded project — not just discussed in a slide.

- Write modular, tested Terraform that provisions equivalent stacks on AWS, Azure and GCP
- Run production Kubernetes: deployments, ingress, autoscaling, storage, RBAC, network policy
- Build CI/CD in GitHub Actions and Azure DevOps with proper artefact promotion and approvals
- Practise GitOps with ArgoCD/Flux including progressive delivery and rollback
- Instrument systems with Prometheus, Grafana, Loki and OpenTelemetry and define real SLOs
- Shift security left: SAST, image scanning, policy-as-code, secrets management

## Who this masterclass is for

- Developers and sysadmins moving into DevOps
- Cloud engineers wanting multi-cloud depth
- Data engineers who must own their own infrastructure
- SRE and platform engineering candidates

## Prerequisites

- Basic Linux command line (a 6-hour primer is included)
- Any scripting language
- Free-tier accounts on at least one cloud

## Tools and technologies

Linux · Git · Docker · Kubernetes · Helm · Terraform · Terragrunt · Ansible · GitHub Actions · Azure DevOps · GitLab CI · Jenkins · ArgoCD · Flux · Prometheus · Grafana · Loki · OpenTelemetry · Trivy · SonarQube · OPA/Gatekeeper · Vault

# Curriculum — 100 hours across 10 modules

Sessions run live in small batches. Roughly 60% of each session is hands-on lab work.

## MODULE 1 Linux, networking and Git foundations — 10 hrs

- Shell fluency: processes, permissions, systemd, journald, cron, package managers
- Networking for DevOps: DNS, TLS, HTTP, load balancing, CIDR, firewalls, troubleshooting with dig/curl/ss
- Git deeply: branching models, rebase vs merge, hooks, monorepo vs polyrepo, conventional commits
- Bash and Python scripting for automation
- Lab: harden and instrument a Linux host from a blank VM

## MODULE 2 Containers and Docker — 8 hrs

- Images, layers, registries, multi-stage builds, distroless and image slimming
- Networking, volumes, compose, healthchecks, resource limits
- Security: non-root users, read-only filesystems, scanning, SBOMs, signing (cosign)
- Buildx, caching in CI, reproducible builds
- Lab: shrink a 1.2 GB image to 90 MB and prove it still works

## MODULE 3 Kubernetes core — 14 hrs

- Architecture: control plane, kubelet, scheduler, etcd, CRI/CNI/CSI
- Workloads: Pod, Deployment, StatefulSet, DaemonSet, Job, CronJob
- Config: ConfigMap, Secret, env, projected volumes; probes and lifecycle hooks
- Networking: Service types, Ingress, Gateway API, DNS, NetworkPolicy
- Storage: PV/PVC, StorageClass, CSI drivers, stateful workload patterns
- Scheduling: requests/limits, QoS, affinity, taints, topology spread, PDBs
- Lab: debug six deliberately broken clusters

## MODULE 4 Kubernetes in production — 10 hrs

- Managed Kubernetes compared: EKS vs AKS vs GKE (and GKE Autopilot)
- Autoscaling: HPA, VPA, Cluster Autoscaler, Karpenter
- Helm: charts, values, dependencies, hooks; Kustomize overlays
- RBAC, service accounts, workload identity, admission control, Pod Security Standards
- Upgrades, drain, blue/green and canary strategies, disaster recovery
- Lab: zero-downtime cluster upgrade with a live traffic test

## MODULE 5 Terraform and infrastructure as code — 14 hrs

- HCL, providers, resources, data sources, variables, outputs, locals, functions
- State: remote backends, locking, drift, import, moved/removed blocks
- Modules: composition, versioning, registry, testing with terraform test and Terratest
- Workspaces vs directories; Terragrunt; multi-account/multi-subscription/multi-project patterns
- Cloud-specific modules for AWS, Azure and GCP — the same architecture three ways
- Policy as code: Sentinel/OPA, cost estimation with Infracost, CI validation
- Lab: Project 1 three-cloud landing zone

## MODULE 6 Configuration management and immutable infrastructure — 6 hrs

- Ansible: inventories, playbooks, roles, idempotency, Ansible Vault
- Packer for golden images; immutable vs mutable infrastructure
- Cloud-init, bootstrapping and drift prevention
- Lab: build and bake an AMI/image with Packer + Ansible

## MODULE 7 CI/CD pipelines — 12 hrs

- Pipeline design: build once, promote everywhere; artefact registries; versioning
- GitHub Actions: workflows, matrix builds, reusable workflows, OIDC to cloud (no long-lived keys)
- Azure DevOps: pipelines, environments, approvals, service connections
- GitLab CI and Jenkins essentials for brownfield estates
- Testing in the pipeline: unit, integration, contract, smoke, load
- Release strategies: blue/green, canary, feature flags, database migrations
- Lab: multi-environment promotion with manual approval and automated rollback

## MODULE 8 GitOps and platform engineering — 8 hrs

- GitOps principles; ArgoCD and Flux compared; app-of-apps and ApplicationSets
- Progressive delivery with Argo Rollouts / Flagger and SLO-based automatic rollback
- Secrets in GitOps: Sealed Secrets, External Secrets Operator, Vault
- Internal developer platforms: Backstage, golden paths, self-service
- Lab: Project 2 GitOps platform

## MODULE 9 Observability and SRE practice — 10 hrs

- Metrics with Prometheus: exporters, PromQL, recording and alerting rules, Alertmanager
- Logs with Loki/ELK; traces with OpenTelemetry and Tempo/Jaeger
- Grafana dashboards that people actually use; RED and USE methods
- SLIs, SLOs, error budgets, on-call, incident response and blameless postmortems
- Cost observability across three clouds; FinOps basics
- Lab: define SLOs for the platform and wire burn-rate alerts

## MODULE 10 DevSecOps, capstone and career — 8 hrs

- Threat modelling; supply-chain security (SLSA), dependency and container scanning
- SAST/DAST, secret scanning, IaC scanning (tfsec/Checkov), policy gates
- Secrets management with Vault and cloud-native KMS; short-lived credentials
- Compliance basics: CIS benchmarks, audit trails, evidence collection
- Capstone review, Terraform Associate / CKA prep pointers, DevOps interview drill
- Resume framing for DevOps and SRE roles

## Hands-on projects

You leave with work you can demo in an interview. Each project is code-reviewed and returned with written feedback.

### PROJECT 1 Three-cloud landing zone

One Terraform codebase with modules and workspaces provisioning networking, identity, storage and a Kubernetes cluster on AWS, Azure and GCP.

### PROJECT 2 GitOps microservices platform

Containerised app deployed via ArgoCD with Helm, canary releases, HPA, ingress+TLS, and automated rollback on SLO breach.

### PROJECT 3 DevSecOps pipeline

CI with unit tests, SAST, dependency and image scanning, SBOM generation, signed images, policy gates, and a security report artefact per build.

## Frequently asked questions

Do I need all three clouds?

You need at least one to complete every lab. Terraform modules are written so the same architecture deploys on all three, and we show the differences side by side. Most students do the labs on one cloud and read along on the others.

Will this prepare me for CKA?

It covers the CKA curriculum in Modules 3–4 and includes cluster-troubleshooting drills, but the CKA is a performance exam — plan an extra 20–30 hours of killer.sh style practice on top.

I'm a data engineer. Is this relevant?

Very. Modules 3–5 and 7–9 are exactly what you need to own Airflow on Kubernetes, containerised Spark jobs and Terraform-managed data infrastructure. There is a data-engineer bundle with the Databricks or AWS course.

Is Jenkins still worth learning?

Only enough to maintain what exists. We spend most of the CI/CD time on GitHub Actions and Azure DevOps, with a short Jenkins segment for brownfield reality.

## How to enrol

- Book a free demo. Sit in on a live session with the current batch — no card, no commitment. WhatsApp +91-9247159150 or call +91-8500002025.
- Pick your batch. Weekday morning, weekday evening or weekend. All times IST.
- Pay the fee (₹24,000, instalments and EMI available) and get your workspace, material and calendar invites.
- Start building. Labs from session one; recordings posted the same day.

## What is included

- 100 hours of live instruction by Venu Katragadda
- Lifetime access to all session recordings
- 3 code-reviewed portfolio projects
- Preparation for: HashiCorp Terraform Associate · CKA concepts · AZ-400 concepts
- Resume review, LinkedIn optimisation and one mock interview with written feedback
- Free re-attend of any future batch of the same masterclass
- Doubt-clearing sessions and a private student group

## Refund policy in brief

| When you cancel | Refund |
|---|---|
| Before the batch starts | Up to 90% |
| Within 5 days of start, max 2 classes attended | Up to 70% |
| After 7 days, or more than 5 classes attended | No refund — free transfer to a later batch |

Full policy: databrickstraining.com/refund-policy/

## Talk to us

| | |
|---|---|
| Call | +91-8500002025 · +91-9247159150 |
| WhatsApp | +91-9247159150 — usually answered within the hour |
| Email | info@databrickstraining.com |
| Website | databrickstraining.com/courses/multi-cloud-devops-masterclass/ |
| Foundation tier | databrickstraining.in — shorter 70–80 hour courses if this one is too advanced |
| Institute | Sreyobhilashi IT · Udyam UDYAM-TS-02-0334643 · 112, Samshraya Homes, opp. PF Office, Balanagar, Kukatpally, Hyderabad, Telangana 500037 |