DevOpsSchool

Course curriculum · November 2026

LEVEL 04 OF 04 · ADVANCED

Vitess Advanced Training

Design multi-cell Vitess deployments at scale, migrate large MySQL estates and govern a shared database platform.

LIVE ONLINE **Max 8-10 hours**	CORPORATE (DAY-WISE) **5 days · Days 1-5**	SELF-PACED VIDEO **1-year LMS access**
BATCH SIZE **Max 10 learners**	NEXT BATCHES **1st of every month · weekends: first Saturday**	CERTIFICATE **Verifiable certificate of completion**

Foundation	Essential	Intermediate	Advanced
1 day · Included	2 days · Included	3 days · Included	5 days · This curriculum

INSIDE THIS CURRICULUM

What you will achieve	Outcomes and level focus
Who should attend	Audience and prerequisites
Agenda	47 topics · Foundation to Advanced
Hands-on labs	4 labs
Formats and fees	Live, 1:1, self-paced, corporate
Trainer and reviews	Rajesh Kumar
Enrolment	Batches, payment, contacts

WHY DEVOPSSCHOOL

- Rated 4.6 on Google
- 1,500+ verifiable certificates issued in the public registry
- Trainer Rajesh Kumar: 20 years in industry
- Small batches: max 10 learners, every session recorded

Course page: www.devopsschool.com/courses/vitess/vitess-advance-training.html
Talk to us: WhatsApp +91 99057 40781 · +1 (469) 756-6329 · contact@DevOpsSchool.com · reply within 1 hour

OUTCOMES

What you will achieve

By the end of the Vitess course path, you will be able to:

1

Scale MySQL horizontally

Design keyspaces, VSchemas and vindexes to shard MySQL with Vitess.

2

Operate Vitess clusters

Run failover, online schema changes, backups and monitoring for production Vitess.

3

Migrate without downtime

Move and reshard data with VReplication workflows and verify it with VDiff.

WHAT THE ADVANCED LEVEL ADDS

Scale, multi-cell design, migration and governance

Hands-on: Capstone: migrate MySQL to sharded Vitess. Migrate an application from a single MySQL instance into a sharded multi-cell Vitess cluster with MoveTables, switch traffic with zero downtime and run a DR drill.

WHO SHOULD ATTEND

- Experienced Vitess practitioners responsible for quality, security and scale.
- Senior engineers, architects and leads who design and troubleshoot Vitess solutions.
- Teams making Vitess an organisation-wide standard.

BEFORE YOU START

- The Intermediate level, or equivalent hands-on experience.
- You can already: Operate Vitess in production with automated failover, online schema changes, monitoring and performance tuning.
- Basic computer skills and a laptop with a stable internet connection for the live sessions and labs.
- This curriculum includes every earlier level, so it is complete on its own.

AGENDA · FOUNDATION TO ADVANCED

Vitess Advanced Training agenda

47 topics. Each level builds on the one before it, so this curriculum lists every earlier level in full. Days are for corporate (day-wise) delivery; live online batches cover the same agenda in max 8-10 hours.

DAY 1 — Foundation: MySQL scaling concepts, Vitess architecture and local cluster

Included from Foundation

1. Scaling MySQL: vertical limits, read replicas, manual sharding and where Vitess fits
2. What Vitess is: a CNCF graduated database clustering system for horizontal scaling of MySQL
3. Architecture: VTGate, VTTablet, MySQL instances, topology service, vtctld and VTOrc
4. Keyspaces and shards: logical databases, key ranges and unsharded versus sharded keyspaces
5. Tablet types: primary, replica and rdonly tablets and how traffic is routed to them
6. Topology service: etcd, ZooKeeper or Consul as the cluster metadata store
7. Local install: Vitess binaries and the local example scripts with etcd
8. Connecting applications: the MySQL protocol through VTGate and tablet type targeting
9. First queries: creating a schema, inserting and selecting data through VTGate
10. Admin tools: vtctldclient commands and the VTAdmin web interface
11. MySQL compatibility: supported SQL features and known limitations

DAY 2 — Essential: VSchema, vindexes, sharding and Kubernetes deployment

Included from Essential

12. VSchema: tables, sequences and routing rules that describe a keyspace
13. Primary vindexes: hash, xxhash and numeric vindexes and choosing a sharding key
14. Secondary and lookup vindexes: unique and non-unique lookups and their backing tables
15. Sequences: generating auto-increment IDs across shards
16. Query routing: single-shard, scatter and cross-shard queries and how VTGate plans them
17. VTExplain and EXPLAIN: understanding query plans and avoiding expensive scatters
18. MoveTables: moving tables from a legacy MySQL or unsharded keyspace into Vitess
19. Resharding: the Reshard workflow from one shard to many with VReplication
20. VDiff: verifying data between source and target during workflows
21. Vitess Operator: VitessCluster resources and deploying on Kubernetes
22. Schema changes: applying DDL across shards with vtctldclient ApplySchema
23. Backups: builtin and XtraBackup engines and restoring a tablet from backup

DAY 3 — Intermediate: Operations, failover, online DDL and monitoring

Included from Intermediate

24. VTOrc: automated failure detection and recovery for primaries
25. Planned and emergency reparenting: PlannedReparentShard and EmergencyReparentShard
26. Durability policies: semi-sync replication settings and their failover guarantees
27. Online DDL: the vitess strategy, migration lifecycle, cut-over and revert
28. Tablet throttler: protecting replication lag during heavy writes and migrations
29. Connection pooling and query consolidation: how VTTablet protects MySQL
30. Query safety: row limits, timeouts, transaction limits and query rules

31. Monitoring: Prometheus metrics from VTGate and VTTablet and Grafana dashboards
32. Logging and tracing: query logs, slow queries and distributed tracing
33. Security: TLS between components, MySQL user mapping and table ACLs
34. Upgrades: rolling upgrades of Vitess components and MySQL versions
35. Troubleshooting: replication lag, failed workflows, topology issues and stuck migrations

DAYS 4-5 **Advanced: Scale, multi-cell design, migration and governance** **New at this level**

36. Multi-cell topology: global and local topology services, cells and regional routing
37. Cross-region resilience: replica placement, durability policies and regional failover
38. Advanced VReplication: Materialize views, reference tables and multi-tenant migrations
39. Large-scale migrations: zero-downtime cut-over from existing MySQL with MoveTables and SwitchTraffic
40. Sharding strategy: re-evaluating keys, hot shards, shard splits and merges
41. Distributed transactions: cross-shard transaction modes, atomicity trade-offs and design guidance
42. Performance engineering: VTGate scaling, plan cache, connection limits and benchmark methodology
43. Capacity planning: shard sizing, storage growth and cost per shard
44. Kubernetes at scale: operator upgrades, resource sizing and backup scheduling
45. Disaster recovery: point-in-time recovery, backup verification and restore drills
46. Platform governance: schema review, query standards, tenant onboarding and change control
47. Capstone: a sharded, multi-cell Vitess platform migrated from a single MySQL database

PRACTICE

Hands-on labs

You build these yourself during the course, guided by the trainer.

FOUNDATION

Run a local Vitess cluster

Start a local Vitess cluster with an unsharded keyspace, connect with the MySQL client through VTGate and inspect tablets with vtctldclient and VTAdmin.

ESSENTIAL

Shard a keyspace with VReplication

Define a VSchema with a hash vindex and a lookup vindex, reshard a keyspace from one to two shards with Reshard and verify data with VDiff.

INTERMEDIATE

Fail over and change schemas online

Trigger a primary failure handled by VTOrc, run an online DDL migration with the throttler enabled and observe both in Grafana.

ADVANCED

Capstone: migrate MySQL to sharded Vitess

Migrate an application from a single MySQL instance into a sharded multi-cell Vitess cluster with MoveTables, switch traffic with zero downtime and run a DR drill.

HOW YOU CAN LEARN

Formats and fees

The same agenda in four formats. Fees are in Indian rupees as of November 2026; the course page shows them in your currency.

FORMAT	DURATION	WHAT YOU GET	FEE
Live & interactive (online)	Max 8-10 hours	Instructor-led public batch of max 10 learners with demos, labs, Q&A and assignment review. Weekday batches start on the 1st of every month, weekend batches on the first Saturday of every month.	**INR 34,999**
1:1 live training (online)	Max 8-10 hours, one-to-one	The same agenda, taught one-to-one by the trainer. Starts immediately, without waiting for the next batch; sessions planned around your working hours, at your pace.	**INR 99,999**
Self-paced video	1-year LMS access	All four Vitess levels, plus 20+ more courses and 50+ tools, at your own pace.	**INR 833/month** billed yearly at INR 9,996
Corporate (day-wise)	5 days for this level	A private batch for your team, on demand. Foundation 1 day, Essential 2, Intermediate 3, Advanced 5 (cumulative).	**Quote on request**

ASSESSMENT AND CERTIFICATE

Your progress is checked through hands-on labs and assignments at every level. On completion you receive a DevOpsSchool certificate of completion with a unique credential ID that anyone can verify at devopsschool.com/certificates.

INCLUDED WITH EVERY LIVE BATCH

- Every live session is recorded and stays in your LMS for a year.
- Can't attend your batch? Move to next month's batch.
- Free demo class before you pay.
- Free 10-15 minute call with an advisor or the trainer to check the course fits you.

YOUR TRAINER

Learn from Rajesh Kumar

Principal Architect, trainer and mentor in DevOps, SRE, DevSecOps and platform engineering, with 20 years across 8+ software MNCs, including Staff DevOps/SRE Engineer for a leading Japanese mobile-payment platform and Principal DevOps Architect and Manager in Europe.

Profile: www.rajeshkumar.xyz · Videos: youtube.com/@TheDevOpsSchool

20 years in industry	**200+** corporate trainings
10,000+ engineers mentored	**70+** organisations coached

REVIEWS

What learners say

Rated 4.6 on Google · more reviews at devopsschool.com/testimonials and in our video testimonials.

> “Rajesh is very good trainer. Rajesh was able to resolve our queries and question effectively. We really liked the hands-on examples covered during this training program.”
>
> Indrayani, India

> “The training was very useful and interactive. Rajesh helped develop the confidence of all.”
>
> Abhinav Gupta, Pune

START YOUR VITESS TRAINING

Join the next batch

Weekday batches start on the 1st of every month and weekend batches on the first Saturday of every month, with max 10 learners each. 1:1 training can start immediately; corporate batches run on demand. We reply within 1 hour.

Pay by UPI, credit and debit cards, net banking or PayPal. Before you pay, read our refund policy. All levels of this course: www.devopsschool.com/courses/vitess/

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Vitess Advanced Training

WHATSAPP · INDIA
+91 99057 40781

WHATSAPP · USA
+1 (469) 756-6329

EMAIL
contact@DevOpsSchool.com