

MySQL Advanced Operations and Troubleshooting

Get trained by MySQL experts

We are pioneers in delivering enterprise-class MySQL training services addressing architecture, internals, performance, scalability, reliability and high availability. We deliver training through [GoToWebinar](#) , Our trainers are experienced in delivering 100% hands-on workshops addressing real world challenges in MySQL, MariaDB and Percona Server infrastructure operations. Our workshops (MySQL Advanced DBA Operations and Troubleshooting Workshop) are 100% vendor neutral so we create maximum value for our customers using MySQL, MariaDB and Percona Server .

MinervaDB Advanced MySQL Operations and Troubleshooting

This workshop is definitely not for beginners but if you are already a MySQL DBA / Database Architect / Database Engineer / DBA Manager / Technical Architect / Solutions Architect / DevOps. Architect / CTO will really benefit you in understanding and building a web-scale database application which will be optimal, scalable, highly available and reliable. This will be a 100% hands-on program with Q&A, You can re-run my scripts and demos to reproduce problems in your sandbox database. You can have any MySQL / MariaDB / Percona Server release installed for this workshop (but no more MySQL 5.1 please). If you want a print out of the PDF with slides please tell me in advance, I can ship that for you but **you agree that you will not redistribute these documents to anyone else !** I request you to Download [GoToMeeting](#) software (to avoid the web-only version). Please confirm [GoToWebinar](#) is working on your computer. I will send you the GoToMeeting link 2 days before seminar start, please attend the seminar via the GoToMeeting link. **Several people sharing the GoToMeeting link are not allowed, Each attendee must purchase a seat .**

- Presenter(s) – Shiv Iyer
- Presenter LinkedIn – <https://www.linkedin.com/in/thewebscaledba/>
- Duration – 60 hours (15 half days / 4 hours daily)
- Time – **08:00 AM – 12:00 PM PST**
- Fees – **US \$3,000.00** per attendee
- Confirm **GoToMeeting** is successfully installed and working on your computer
- Skype – talk2shiviyer / shiv_askdbexperts
- Google Hangouts – shiv@minervadb.com

The schedule of every half-day is following (Pacific Time):

- **08:00 AM – 09:30 AM – Session 1**
- **09:30 AM – 10:00 AM – Q&A + Break**
- **10:00 AM – 11:30 AM – Session 2**
- **11:30 AM – 12:00 PM – Q&A**

If some questions take longer to answer (with a demo), We may postpone these until the end of the day – to “extra demos” session.

In attending our classes, you agree to have read and understood these points:

- All online training will be conducted online in a *virtual class*, delivered through GoToMeeting service, **You don't need to book an airline ticket and hotel accommodation the way you usually do to get access to world-class training**
- The attendee is expected to have his/her own means of accessing the online virtual class
- The training has been optimized for online delivery. Sufficient time is allotted for questions and answers.
- **Each attendee must purchase a seat** – paying for one seat and having several people share the GoToMeeting session is not allowed.
- Training handouts will be distributed in PDF format and in attending this training, you agree that **you will not redistribute these handouts to anyone else.**
- You can cancel your attendance and get a full (100%) refund up to a week before the seminar starts, assuming that you haven't requested & received previous training sessions videos. **Note:** Once any training material (PDFs or video recordings of previous sessions) are sent out to you, there is no refund.
- Training recordings will be distributed as downloadable MP4 videos. Each attendee will get a version of digitally watermarked videos with his/her name on it. These videos are yours to keep, but you must agree **to not redistribute these videos to anyone else.**
- Neither MinervaDB nor any of its trainers (Shiv Iyer) are liable for any damage caused, directly or indirectly, by following (or not following) the advice in the training material or advice given during the training sessions and any follow-ups. While we advise to only use known-to-be safe techniques and will warn you about any potentially-unsafe techniques, the **ultimate responsibility of assessing risk and avoiding any damage to your IT systems always lies in you, the attendee.**
- **Attendees can ask questions any time** during the training (through the chat interface during the lecture and via a normal voice discussion during breaks and Q&A session).
- For technical questions about the contents and delivery of the class, please send an email to shiv@minervadb.com

P.S – One year free 24*7 MySQL support on email and Skype / Google Hangouts for all the attendees from MinervaDB

Topics covered

MySQL Ops. DBA survival kit – How to be a successful MySQL DBA ?

- Top 10 variables you must be aware of for an optimal, scalable, highly available and reliable MySQL Infrastructure operations .
- Top 10 status variables you can use to troubleshoot MySQL quickly .
- Top 10 MySQL processes which need your immediate attention .
- Top 10 SQLs in MySQL which need your immediate attention .
- How MySQL is using CPU and how to troubleshoot when your CPU usage is 99% ?
- When too much tuning and configuration of MySQL becomes an overkill ?
- Using Linux tools for performance diagnostics and troubleshooting MySQL .
- Why MySQL causing excessive disk I/O ?
- Most commonly used MySQL DBA tools .
- Monitoring and trending MySQL performance .
- How to find and isolate rogue SQLs in MySQL ?
- How to find unused indexes in MySQL ?
- Troubleshooting performance using MySQL logs .
- How to use Performance Schema for troubleshooting MySQL performance ?
- Finding why process is burning CPU when MySQL is idle .
- Troubleshooting high CPU usage .
- How to troubleshoot when you accidentally drop MySQL database or table ?
- How to troubleshoot MySQL file corruption ?
- MySQL Ops. checklist for a production DBA .
- DevOps. for MySQL DBA .
- Choosing tools for your MySQL infrastructure operations .
- what are things you must not do as a MySQL production DBA ?
- How to choose replication solution and build self-healing MySQL infrastructure operations ?
- How to use MySQL compression for performance ?
- How to use multiple MySQL storage engines for performance, scalability and high availability – InnoDB / XtraDB, RocksDB / MyRocks and TokuDB .

Topics covered

How to do the capacity planning and sizing of MySQL infrastructure operations ?

- Capacity planning and sizing pitfalls in MySQL infrastructure operations .
- Benchmarking MySQL – How MySQL is using CPU, Memory, Disk and Network ?
- Linux tools to benchmark MySQL Infrastructure operations .
- Most common MySQL benchmarking tools .
 - Benchmarking MySQL using Sysbench .
 - Stress testing MySQL using mysqlslap .
- Find disk I/O intensive SQL and schema .
- Choosing optimal infrastructure for MySQL performance .
- How to plan for the growth of MySQL Infrastructure operations in the future ?
- How to proactively size your MySQL infrastructure .
- Right sizing – How to find those resource intensive SQL / code in MySQL infrastructure and isolate it for performance and scalability ?
- How to build MySQL Infrastructure operations for performance, scalability and high availability ?
- How to plan for MySQL archiving ?
- Faster CPUs or more CPUs, What works better ?
- How to build infrastructure for multi-DC MySQL deployment ?

MySQL performance forensics, diagnostics, health check and audit

- Monitoring and trending MySQL infrastructure operations for performance, scalability and reliability.
- Using Linux tools for MySQL performance forensics, diagnostics, health check and audit .
- Using system variables for MySQL performance audit .
- Using status variables to monitor MySQL performance .
- How to use slow_query_log for troubleshooting MySQL performance ?
- How to use Percona Toolkit for troubleshooting MySQL performance ?
- How to use Performance Schema for troubleshooting MySQL performance ?
- Building MySQL performance metrics for reporting and troubleshooting .
- Profiling MySQL performance .
- Tracing MySQL infrastructure operations .
- Reading “SHOW ENGINE INNODB STATUS” output .
- What is happening to your MySQL Buffer Pool and Memory during peak hours ?

Topics covered

Building high performance MySQL infrastructure operations

- How to configure Linux for MySQL performance ?
- Configuring system variables for MySQL performance .
- Building schema for optimal MySQL performance .
- Indexing MySQL for performance .
- Finding unused indexes .
- Troubleshooting MySQL performance .
- Tuning Disk for MySQL performance .
- How to use partitioning for MySQL performance ?
- Archiving data for optimal MySQL performance .
- How to find your SQL pulling more data than needed and troubleshoot proactively?
- Linux tools for troubleshooting disk I/O .
- Troubleshooting excessive disk I/O in MySQL .
- Troubleshooting slow disk I/O in MySQL .
- Troubleshooting slow SELECT SQL(s) .
- Troubleshooting MySQL performance using Percona Toolkit .
- Troubleshooting MySQL performance using Performance Schema .

Building web-scale Database Infrastructure operations using MySQL

- Building MySQL applications for web-scale .
- Scaling MySQL vertically .
- When to scale MySQL horizontally ?
- How to use replication for building web-scale MySQL applications ?
- MySQL scale-out / horizontal scaling methods and tools .
- Using MySQL Replication to scale reads .
- Building MySQL sharding – Scaling MySQL reads and writes optimally .
- Building multi-DC scalable MySQL operations .
- How to address MySQL outage at DC level ?
- Troubleshooting excessive MySQL read / write operations .
- How to use load-balancing tools in a distributed MySQL infrastructure ?

Topics covered

How to use MySQL Replication for performance, scalability, high availability and disaster recovery ?

- MySQL replication topologies and what fits best for you ?
- How to use MySQL replication for performance .
- How to optimize MySQL disk I/O by splitting read/writes across multiple MySQL instances ?
- How to use replication for scaling MySQL infrastructure operations ?
- Using MySQL replication for disaster recovery .
- How to use MySQL replication for building scalable database applications ?
- How to use MySQL replication for archiving data ?
- Using MySQL delayed slave for disaster recovery .
- Troubleshooting MySQL replication lag .
- Troubleshooting MySQL replication using Percona Toolkit .
- Troubleshooting corrupted MySQL replication .
- Building self-healing MySQL replication solutions .
- How to recover corrupted / deleted files in MySQL ?
- How to recover database / tables dropped in MySQL ?
- Galera Cluster deployment and troubleshooting .
- Percona XtraDB Cluster deployment and troubleshooting .
- MariaDB MaxScale deployment and troubleshooting .

To register for “MinervaDB Advanced MySQL Operations and Troubleshooting” workshop, please book for an appointment [here](#) or send email to contact@minervadb.com