

Emerging Technologies

DBA - MySQL - SQL Server Program

Curriculum

Program Outline :

Module 1: Fundamentals of Database Administration

1. Introduction to Database Administration

- Core principles and tools of database administration.
- Overview of MySQL and SQL Server platforms.
- Benefits and challenges of using relational databases.

2. Database Design and Configuration

- Designing and configuring databases.
- Creating and managing tables and other system objects.
- Best practices for database design and configuration.

Module 2: Advanced Database Management

3. Database Performance Optimization

- Monitoring and optimizing database performance.
- Identifying performance bottlenecks and implementing solutions.
- Best practices for performance tuning and optimization.

4. Database Security and Governance

- Implementing security measures for databases.
- Best practices for securing databases and protecting data.

- Understanding database governance and compliance requirements.

5. Troubleshooting Database Issues

- Identifying and resolving common database issues.
- Using diagnostic tools and techniques for troubleshooting.
- Best practices for maintaining database health and performance.

6. Using MySQL Workbench

- Overview of MySQL Workbench features and capabilities.
- Performing database management tasks with MySQL Workbench.
- Best practices for using graphical tools for database administration.

Module 3: Practical Applications

7. Hands-on Database Projects

- Real-world projects to apply database administration skills.
- Designing and implementing database solutions for various scenarios.
- Collaborating with peers and mentors to solve complex challenges.

8. Database Integration

- Integrating databases with existing systems and applications.
- Best practices for database migration and synchronization.
- Strategies for maintaining data integrity and consistency.

Module 4: Certification Preparation

9. Certification Exam Preparation

- Comprehensive preparation for database certification exams.
- Practice exams and review sessions.
- Exam tips and strategies for success.

10. Advanced Database Techniques

- Deepening knowledge and exploring advanced database capabilities.
- Implementing advanced data manipulation, analysis, and reporting techniques.

Elective Modules

11. Data Ethics and Privacy

- Ethical considerations, privacy laws, and compliance strategies.

12. AI Integration for Database Management

- Implementing AI solutions in database management.

13. Big Data Solutions with MySQL and SQL Server

- Managing big data applications with MySQL and SQL Server.

14. DevOps Practices for Database Administration

- CI/CD pipelines, automation, and containerization for databases.

15. Database Project Management

- Leading database projects and ensuring successful delivery.

16. IoT Data Management with MySQL and SQL Server

- Integrating and managing IoT data with relational databases.

Websites:

- <https://chools.in/>
- <https://ramaqchools.com/>
- <https://www.choolsgroup.com/>