SQL Database Mastery

Relational Architectures, Optimization Techniques, and Cloud-Based Applications

Mohanraju Muppala

DeepScience

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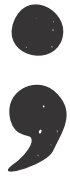
Marine IT Technology, Marine AI



DeepScience

Published, marketed, and distributed by:

Deep Science Publishing, 2025
USA | UK | India | Turkey
Reg. No. MH-33-0523625
www.deepscienceresearch.com
editor@deepscienceresearch.com
WhatsApp: +91 7977171947

ISBN: 978-93-7185-314-9

E-ISBN: 978-93-7185-191-6

https://doi.org/10.70593/978-93-7185-191-6

Citation: Muppala, M. (2025). *SQL Database Mastery: Relational Architectures, Optimization Techniques, and Cloud-Based Applications*. Deep Science Publishing. https://doi.org/10.70593/978-93-7185-191-6

Preface

SQL remains at the core of modern data management, powering mission-critical systems across industries. This book, *SQL Database Mastery: Architecture, Optimization, and Real-World Applications*, bridges foundational concepts with advanced techniques to help readers design, optimize, and manage relational databases effectively.

Drawing from years of practical experience in marine IT and enterprise systems, this book combines technical depth with hands-on relevance. Topics range from relational theory, indexing, and normalization to cloud SQL platforms, dynamic queries, and performance tuning. Real-world use cases and best practices are included to ensure practical application of each concept.

Whether you're a student, developer, or database architect, this guide aims to support your journey toward mastering SQL in today’s data-driven world.

I am grateful to my peers in the field of Marine IT Technology and AI-based data systems who have inspired and supported the development of this book. I hope it serves as a valuable guide in your journey toward mastering the architecture and optimization of relational databases in an era where data is more critical than ever.

Mohanraju Muppala

Table of Contents