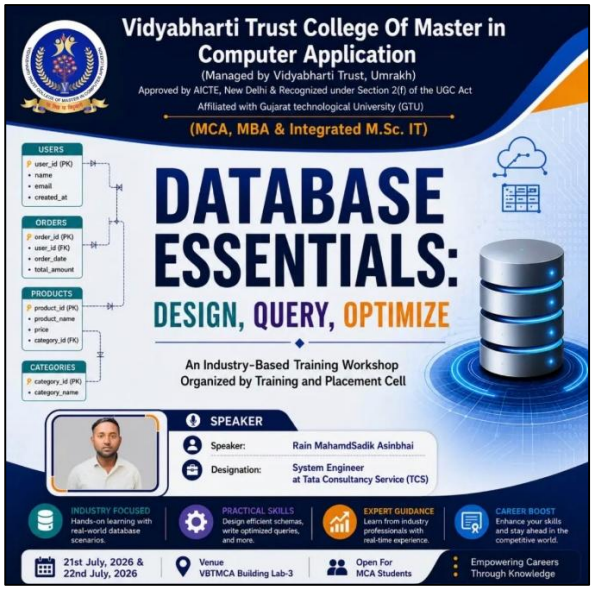
Vidyabharti Trust College of Master in Computer Application (MCA, MBA & IMSc.IT), Umrakh

Approved by AICTE, New Delhi and Affiliated to GTU, Ahmedabad.

Report on Workshop- "*Database Essentials: Design, Query, Optimize*"



Vidyabharti Trust College of Master in Computer Application organized a two-day technical workshop titled "*Database Essentials: Design, Query, Optimize*" on 21st July 2026 and 22nd July 2026 for MCA students. The workshop was conducted by Mr. Rain Mahamdsadik Asinbhai, System Engineer at Tata Consultancy Services (TCS), with the objective of strengthening students' understanding of database concepts and enhancing their practical SQL skills.

The workshop was conducted in two batches to ensure active participation and effective learning. MCA Division A attended the workshop on 21st July 2026, while MCA Division B participated on 22nd July 2026. Approximately 100 students benefited from the two-day program.

The first day of the workshop focused on the fundamentals of database systems and database design principles. Mr. Rain Mahamdsadik Asinbhai introduced students to relational database concepts, normalization, entity-relationship (ER) modeling, primary and foreign keys, and best practices for designing efficient databases. He explained how proper database design improves data integrity, consistency, and scalability in real-world applications.







The session also included practical demonstrations of SQL queries, enabling students to understand data definition, manipulation, and retrieval operations. Students actively participated in hands-on exercises and interacted with the resource person by discussing practical industry scenarios.

The second day of the workshop was conducted for MCA Division B with similar enthusiasm and participation. The resource person revised the core database concepts before moving on to advanced SQL query writing and query optimization techniques. Students learned how to write efficient SQL statements, use joins, aggregate functions, subqueries, indexes, and optimization methods to improve database performance.






The workshop also highlighted the importance of databases in enterprise applications and software development. Mr. Rain shared his professional experiences from Tata Consultancy Services (TCS), providing valuable insights into how database technologies are applied in the IT industry. The interactive discussions and practical activities encouraged students to think analytically and apply database concepts to real-world business problems.

The workshop significantly enhanced students' understanding of database design, SQL programming, and query optimization techniques. It helped bridge the gap between academic learning and industry expectations by providing practical exposure to database management concepts. Students gained confidence in designing relational databases, writing optimized SQL queries, and understanding the role of databases in software development and enterprise applications.

The Department of MCA expresses its sincere gratitude to Mr. Rain Mahamdsadik Asinbhai, System Engineer at Tata Consultancy Services (TCS), for delivering an informative and engaging workshop. The department also appreciates the enthusiastic participation of all MCA students, which contributed to the success of the event.