

CHRIST (Deemed to be University)

Department of Computer Science

Master of Computer Applications

Course: MCA513-1 - Advanced Database Technologies

Exercise No: LAB Exercise – 5

Date of assignment: 31-07-2025

Date of submission: 31.07.2025

Exercise: Demonstrate the four ACID properties—Atomicity, Consistency, Isolation, and Durability—by implementing a multi-user transaction scenario (respective business domain) using SQL

1. Create the Required Tables: Design at least three relevant tables.
2. Implement Transaction Logic
 - START TRANSACTION – to begin the transaction
 - SQL operations (like UPDATE, INSERT, etc.)
 - COMMIT – to make all changes permanent
 - ROLLBACK – to undo all changes if any part fails
3. Simulate Multi-User Concurrency
4. A brief explanation of how each ACID property is demonstrated.

Evaluation Scheme: (Total 10 Marks)

Correctness and Demonstration	(5 marks)
Concept Clarity (Viva)	(3 marks)
Initiative & Effort (self-learning)	(2 marks)

General Instruction:

1. Create a Word document and paste all the answers. The file name should be your register number followed by lab No. Example: 2547101_Lab5
2. Upload the answer document in Google Classroom on or before the deadline mentioned.