



**KONERU LAKSHMAIAH EDUCATION
FOUNDATION**

(Deemed to be University estd, u/s, 3 of the UGC Act,
1956)

(NAAC Accredited “A++” Grade University)

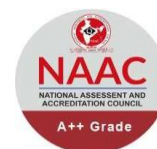
Green Fields, Guntur District, A.P., India – 522502

Department of Electronics and Communication

Engineering

(DST - FIST Sponsored Department)

Active Learning Method



Program: B. Tech

Academic Year / Yr-Sem : 2024 - 25 / II - II Sem

Course Title & Code: **DBMS & 23AD2102R**

Date: **8.3.2025**

Time:

Venue:

| | |
|-------------------|------------------------|
| CO# | 3 |
| Topics | ACID Properties |
| Type of ALM | Practical Question |
| Learning Approach | Participatory Learning |

Activity: Application of ACID Properties to an E-Commerce System Scenario

Task: A customer purchases multiple items from different vendors in an e-commerce system. Each item may have different prices and stock availability, and the system processes the customer's payment, checks item availability, and updates stock for each vendor.

ANSWER

1. **Atomicity:** The entire purchase (payment, stock check, and update) is a single transaction. If any step fails, the whole process is rolled back.
2. **Consistency:** Ensures stock levels and payment records remain valid. If an item is out of stock, the order is canceled or adjusted.
3. **Isolation:** Prevents conflicts when multiple customers buy the same item. Transactions are processed independently to avoid stock discrepancies.
4. **Durability:** Once the order is confirmed, payment and stock updates are permanently saved, even if the system crashes.