



CMR ENGINEERING COLLEGE

UGC AUTONOMOUS

(Approved by AICTE - New Delhi. Affiliated to JNTUH and Accredited by NAAC & NBA)
Kandlakoya (V), Medchal (M), Medchal - Malkajgiri (D)-501401



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

II-I CASE STUDIES(A.Y:2022-23)

Operating System

1. Case Study: CPU Process Scheduling in an Operating System
2. Case Study: Fault Tolerance in Distributed Systems

DBMS:

1. Design and Implementation of a Student Information System
2. Database Design for E-Commerce Website
3. Case Study of a Banking Database System

JAVA

1. Design and Implementation of an Online E-Commerce System
2. Building a Java-based Chat Application
3. Employee Payroll System Using Java



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II-I CASE STUDIES(A.Y:2023-24)

Operating System:

1. Case Study: Mobile Operating Systems
2. Case Study: I/O Management in Operating Systems

DBMS:

1. A Case Study on Social Media Platforms
2. Case Study on an Inventory Management System
3. Implementation of Online Ticket Booking System

JAVA

1. Java-based Library Management System
2. Student Performance Tracking System
3. Java-based ATM Banking System



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II-I CASE STUDIES(A.Y:2024-25)

Operating System:

1. Case Study: File System Management in Operating Systems
2. Case Study on Security Features in Operating Systems

DBMS:

1. Database Management in Real-Time Systems (e.g., Stock Trading System)
2. Graph Databases in Social Networking
3. .Application of DBMS in Geographic Information Systems (GIS)

JAVA

1. Real-time Bus Ticket Reservation System
2. Online Voting System
3. Hotel Management System
4. Java-based Traffic Management System



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III-I CASE STUDIES(A.Y:2022-23)

Computer Networks

1. Network Security: Attack and Defense Mechanisms
2. 5G Network: Architecture and Use Cases
3. .Software-Defined Networking (SDN) in Data Centers

Artificial Intelligence

1. AI in Autonomous Vehicles
2. .AI for Predictive Maintenance in Industry
3. E-commerce: Personalized Recommendations

Principles of Programming Language

1. Evolution of Object-Oriented Programming (OOP)
2. Role of Meta-programming in Ruby



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III-I CASE STUDIES(A.Y:2023-24)

Computer Networks

1. Software-Defined Networking (SDN) in Data Centers
2. Network Virtualization and Cloud Networking
3. Wi-Fi Networks in Large Public Spaces

Artificial Intelligence

1. AI in Agriculture: Precision Farming
2. AI in Fraud Detection Systems
3. AI in Smart Cities: Traffic Management and Urban Planning

Principles of Programming Language

1. .Impact of TypeScript on JavaScript Development
2. Role of Interpreters vs Compilers



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III-I CASE STUDIES(A.Y:2024-25)

Computer Networks

1. Performance Evaluation of Routing Protocols
2. Network Traffic Analysis and Management
3. Virtual Private Networks (VPNs) and Remote Access

Artificial Intelligence

1. AI in Education: Personalized Learning Systems
2. AI in Social Media: Content Moderation and Fake News Detection
3. AI in Robotics: Industrial and Service Robots

Principles of Programming Language

1. Design and Impact of Domain-Specific Languages (DSLs)
2. Adoption of Just-In-Time (JIT) Compilation



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IV-I CASE STUDIES(A.Y:2022-23)

Data Mining

- 1.** Customer Segmentation in E-commerce
- 2.** Predicting Loan Default Using Classification Techniques.

Software Testing Methodologies

- 1.** Manual Testing in a Student Library Management System
- 2.** Unit Testing for a Calculator Application

Internet of Things

1. Smart Home Automation
2. Smart Healthcare: Remote Monitoring and Patient Tracking



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IV-I CASE STUDIES(A.Y:2023-24)

Data Mining

- 1.** Fraud Detection in Credit Card Transactions
- 2.** Recommendation System for Movies or Products

Software Testing Methodologies

- 1.** Integration Testing for a Social Media Application
- 2.** Automated Regression Testing for a Banking System

Internet of Things

- 1.** Smart Agriculture: Precision Farming
- 2.** Industrial IoT (IIoT) for Predictive Maintenance



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IV-I CASE STUDIES(A.Y:2024-25)

Data Mining

- 1.** Sentiment Analysis on Social Media
- 2.** Market Basket Analysis

Software Testing Methodologies

- 1.** Performance Testing for an E-Commerce Website
- 2.** User Acceptance Testing (UAT) for a Hospital Management System

Internet of Things

1. Smart City: Intelligent Traffic Management
2. Smart Supply Chain and Logistics

