Experiment – 1

Aim: To prepare a problem statement for web-based Event Management System for efficient financial tracking and reporting.

Requirements

Hardware Requirements:

➤ **Server-side Requirements:**

▪ Processor: Intel Xeon or equivalent multi-core processor

▪ RAM: Minimum 8 GB

▪ Storage: SSD-based storage with at least 500 GB capacity

▪ Network: High-speed internet connectivity (preferably fiber optic)

▪ Backup System: External hard drives or cloud storage for backups

➤ **Client-side Requirements:**

▪ Processor: Intel Core i3 or higher

▪ RAM: Minimum 4 GB

▪ Storage: 20 GB free disk space

▪ Internet Connection: Minimum 2 Mbps for smooth browsing and interaction

Software Requirements

➤ **Server-side Requirements:**

▪ Operating System: Linux (Ubuntu/CentOS) or Windows Server

▪ Web Server: Nginx or Apache Tomcat

▪ Database: MongoDB with Mongoose ORM

▪ Programming Languages: JavaScript

- ▪ Framework: Node.js and Express.js

- ▪ Version Control: Git for repository management

- ➢ **Client-side Requirements:**

- ▪ Web Browser: Google Chrome, Firefox, or Microsoft Edge

- ▪ Operating System: Windows, macOS, or Linux

- ▪ Web Technologies: HTML, CSS, and JavaScript for UI/UX development

- ▪ Libraries and Frameworks: React.js for frontend development

Theory:

Event discovery, ticket management, and resale remain significant challenges in the entertainment industry. Users often struggle to find local events, purchase tickets efficiently, and resell them securely if they are unable to attend. Existing platforms lack a unified system that ensures transparency, prevents scalping, and minimizes financial losses due to unused tickets.

This project aims to develop a comprehensive event management platform that allows users to discover local events, book tickets, and resell unused tickets securely. The platform will feature real-time event listings, a secure payment gateway, and a regulated resale marketplace to prevent fraud and price manipulation. By integrating location-based event recommendations, QR-based digital ticketing, and a trusted resale system, the platform will enhance accessibility and user convenience.

This solution will benefit event organizers, attendees, and resellers by reducing ticket wastage, improving event participation, and ensuring a seamless and secure ticketing experience.

Conclusion:

The proposed event management platform will streamline event discovery, ticket booking, and resale by providing a secure and transparent system. With real-time event listings, QR-based digital tickets, and a trusted resale marketplace, it ensures seamless transactions, prevents fraud, and reduces ticket wastage, benefiting both attendees and organizers while enhancing event accessibility and participation.