DAYANANDA SAGAR COLLEGE OF ENGINEERING
COMPUTER SCIENCE & ENGINEERING

DBMS Minor Project- Report
Feb-May (2024-2025)

Course Faculty: Prof. Vimala Devi J and Prof. Alka Rani

Course Name & code: Database Management System & 22CS44

Semester: 4   **Date**: 16/05/2025

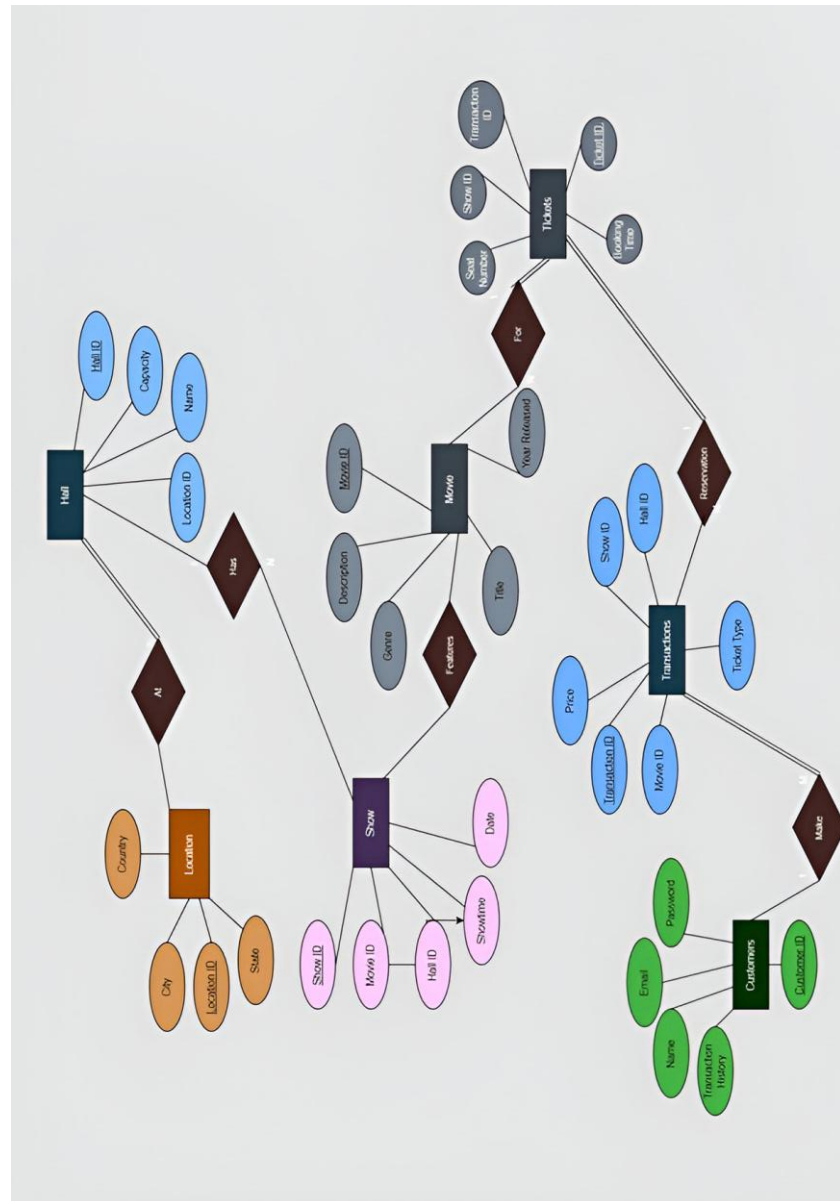| TITLE OF THE PROJECT	THEATRIX : THEATRE MANAGEMENT SYSTEM			
STUDENT NAME	ABHIMANYU DUTTA	ANEESHA NINGOMBAM	ANISHA SARAN	
USN	1DS23CS008	1DS23CS033	1DS23CS036	
INDIVIDUAL CONTRIBUTION	Database Management and Query Handling	HTML AND CSS, Project Report	Back End : Python and MySQL integration	
GUIDE	PROF. VIMALA DEVI J AND PROF. ALKA RANI			
PROJECT ABSTRACT:	The system is designed using a 3-tier architecture consisting of a web-based front end, an application server for handling HTTP requests and routing, and a relational database for data storage and management. The front end communicates asynchronously with the server to provide a smooth and responsive user experience. The database follows a normalized schema to ensure data integrity and efficient querying. JavaScript handles requests on the front end, which are processed by the Flask server. The server uses MySQL's Python connector to interact with the relational database. This system functions as a comprehensive onsite ticket booking and theatre management platform. It supports two primary user roles: a cashier who handles ticket sales and payments at the kiosk, and a manager who oversees operational aspects such as viewing sales analytics, modifying pricing models, scheduling movie showings, and managing the list of currently running and upcoming movies.			

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INTRODUCTION	This project presents the design and implementation of a web-based Theatre Management and Onsite Ticket Booking System using a 3-tier architecture. The system facilitates efficient ticket sales, show scheduling, and theatre operations through a user-friendly interface. The front-end is developed using HTML, CSS, and JavaScript to provide an interactive experience, while the back-end is powered by Python and the Flask framework to manage business logic and routing. A MySQL relational database ensures structured data storage and integrity. The system supports two user roles—cashiers and managers—with role-based access to functionalities like ticket booking, sales analytics, movie management, and scheduling.
DESIGN(ER-DIAGRAM)	

PLATFORM USED (H/W & S/W TOOLS TO BE USED	Front – End: HTML, CSS and JAVASCRIPT Back – End: Python, Flask and MySQL
PROJECT SOURCE CODE LINK (GITHUB/ GOOGLE DRIVE)	https://github.com/Caravaleer/Theatrix
CONCLUSION /FUTURE ENHANCEMENT	The developed system successfully streamlines theatre operations by automating ticket booking and management tasks through a robust and scalable architecture. With asynchronous communication and a normalized database design, the platform ensures responsiveness, data accuracy, and ease of use. The role-based interface improves operational efficiency for both cashiers and managers. This project demonstrates the practical application of full-stack web development principles and lays a foundation for further improvements. Future Enhancements: • Online Ticket Booking: Enable customers to book tickets directly through the internet. • Payment Gateway Integration: Support secure online payments via credit/debit cards, UPI, etc. • Customer Login and Profiles: Allow users to create accounts, view booking history, and receive notifications. • Real-Time Seat Availability: Show live seat selection and availability during booking. • Mobile-Friendly Interface: Optimize the UI for mobile devices or create a mobile app version. • Analytics Dashboard: Advanced reporting tools using charts/graphs for better business insights. • Feedback and Review System: Allow customers to rate movies and give feedback on their experience. • These enhancements can make the system more versatile, customer-focused, and suitable for real-world deployment.

UI SCREENSHOTS

Theatrix Suppliers Licenses Branches Departments Employees Transactions Ticketing Offers Payments Films Customers Memberships Categories Themestores
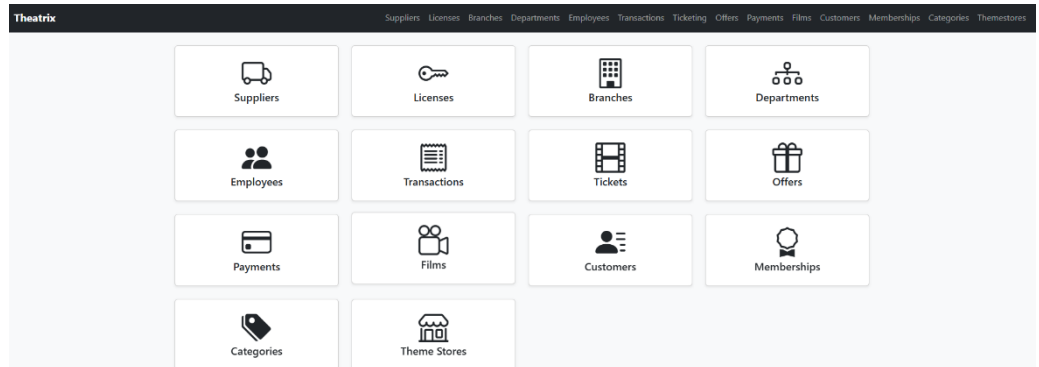
Categories

+ Add Categories

GenreNo	GenreName	Description
1	Action	Fast-paced action, thrilling sequence of physical conflict.
2	Adventure	Featuring exciting and dangerous journeys, set in exotic locations.
3	Comedy	Make audience laugh, feature humor, satire, and light-hearted storytel
4	Crime	Criminal activities and investigations, featuring of suspense and intr
5	Musical	Featuring characters who express themselves through song and dance.
6	Drama	Focused on realistic characters and emotional storylines.
7	Horror	Intended to scare or unsettle the audience, featuring gore, supernatur
8	Science Fiction	Explore speculative or futuristic concepts, often involving advance te
9	Documentary	Non-fiction movies intend to inform, educate, or real-life events.
10	Animation	Animation techniques, including hand-drawn animation, computer-generate
11	Romance	Romantic relationships, love, and emotional connections between charac

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Films

+ Add Films

ID	Name	Director	Actor	Restriction	YearReleased	RunningTime	Description
AB011	Abigail	Matt Bettinlli-Olpin	Kathryn Newton, Giancarlo Esposito	R	2024	109 Minutes	After a group of would-be criminals kidnap the 12-year-old ballerina daughter of a powerful underwor
BB012	Back to Black	Sam Taylor-Johanson	Maria Abela, Eddie Marsan	15	2024	122 Minutes	A celebration of the most iconic – and much missed – homegrown star of the 21st century, BACK TO BLA
BW003	Black Widow	Cate Shortland	Scarlett Johansson, Florence Pugh	PG-13	2021	134 Minutes	Natasha Romanoff, also known as Black Widow, confronts the darker parts of the darker parts of her l
CW013	Civil War	Alex Garland	Kirsten Dunst, Cailee Spaeny	15	2024	109 Minutes	In the near future, a team of journalists travel across the United States during a rapidly escalatin
DN005	The Dark Night	Christopher Nolan	Christian Bale, Heath Ledger	PG-13	2008	152 Minutes	When the menace known as The Joker emerges from his mysterious past, he wreaks havoc and chaos on th
DU002	Dune	Denis Villeneuve	Timothee Chalamet, Rebecca Ferguson	PG-13	2021	155 Minutes	Paul Atreides a brilliant and gifted young man born into a great destiny beyond his understanding, m
DU016	Dune: Part Two	Denis Villeneuve	Timothee Chalamet, Zendaya	12A	2024	167 Minutes	Paul Atreides unites with Chani and the Fremen while on a warpath of revenge against the conspirator
FC009	Fight Club	David Fincher	Brad Pitt, Edward Norton	R	1999	139 Minutes	An insomniac office worker and a devil-may-care soapmaker form an underground fight club that evolve
FG006	Forrest Gump	Rober Zemeckis	Tom Hanks, Robin Wright	PG-13	1994	142 Minutes	The presidencies of Kennedy and Johnson, the events of Vietnam, Watergate and other historical event
FO019	The First Omen	Arkasha Stevenson	Tawfeek Barhom, Sonia Braga	15	2024	119 Minutes	When a young American woman is sent to Rome to begin a life of service to the church, she encounters
GF017	Ghostbusters: Frozen	Gil Kenan	Paul Rudd, McKenna	12A	2024	115 Minutes	In Ghostbusters: Frozen Empire, the Spengler family

My Bookings

Booking ID	Movie	Date	Time	Seat	Price
12	The Silence of the Lambs	2025-05-20	14:00:00	A12, A13	₹12.50
40	Back to Black	2025-05-28	0:20:25	B2	₹350.00