Feasibility Study report

Introduction

The students' society want to replace the manual system for managing events in the auditorium with an automated software. The system will be able to accomplish processes like seat booking, ticket sales, cancellation of tickets, refunds and financial tracking. The system will help in improving the operational efforts, reduce the errors, enhance the customer experience by automatic seat booking and maintaining a proper track of finances. The system must be cost effective, make use of available resources and use free, open source softwares like Linux, Apache, MySQL. There will also be need of a technical expert who will ensure that the software is developed and maintained properly.

Management Summary and Recommendations

Important findings and recommendations:

Findings:

- The current manual system is inefficient, prone to errors and lacks automation that lack the available resources as well as lacks real-time data capabilities, causing a negative experience.
- The manual tracking of the finances is operationally difficult and expose the system to security risks
- These issues will be resolved by an automated system that offers accurate financial tracking, safe access, and real-time updates.
- It is challenging to evaluate the auditorium's financial performance due to errors caused by a lack of automated financial tracking and reporting.

Recommendations:

- Create a software solution specifically designed to meet the requirements of the student auditorium. Functionalities for purchasing tickets, reserving seats, cancelations, financial tracking, and safe access control should all be included in this solution.
- Allocate sufficient budget and resources to ensure the successful development and deployment of the software.
- Include stakeholders from the beginning of the project to make sure the software satisfies all needs and expectations.
- To safeguard sensitive financial and personal data, make sure the software has strong security features.
- Conduct training sessions for staff to familiarize them with the new system and ensure a smooth transition from the manual process.

Economic Feasibility: The manual management of events in the students' auditorium is currently inefficient, leading to revenue loss and increased operational costs. The implementation of an automated system is expected to streamline operations, improve booking accuracy, and provide better financial oversight. While there is an initial investment required to develop and deploy the software, the long-term benefits, including increased revenue from more efficient ticket sales and reduced labour costs, justify this investment.

Technical Feasibility: The technology required to develop the Students' Auditorium Management Software is readily available. The use of open-source software like Linux, MySQL, and Apache web server aligns with the project's cost constraints and ensures that the system can be developed without significant additional software licensing costs.

Operational Feasibility: The proposed software will significantly enhance the operational capabilities of the auditorium management. By automating ticket sales, cancellations, and financial tracking, the system will comply with existing operational standards and regulations. The system will be designed to respect organizational culture and policies, ensuring that all operations are carried out transparently and in accordance with relevant laws and regulations.

Alternatives

Alternative System Specifications:

1. **Custom Software Development**

- Pros: Tailored to specific needs, scalable, robust security.
- Cons: Higher initial costs, longer development time.

2. **Hybrid Approach: Custom development on top of an existing System**

-Pros: Reduced development time and cost compared to building from scratch.
Flexibility to customize essential features.

-Cons: Integration challenges with existing systems.
Some limitations in customization due to the constraints of the underlying framework.

System Description

The proposed "Students' Auditorium Management Software" will automate all major functions of the auditorium management process, including:

- Seat Booking and Ticket Sales: Real-time tracking of seat availability, automated ticket issuance, and cancellation processing.
- Financial Management: Automated tracking of revenue, expenses, and commission calculations, with the ability to generate financial reports.
- Security: To guarantee that only authorized individuals can access sensitive data, role-based access control is used.

- Reporting: Capability to generate detailed reports on seat occupancy, sales performance, and financial outcomes.

Cost-Benefit Analysis

Costs:

- Custom Software Development: Estimated initial cost of 5,00,000 rupees, covering design, development, and deployment.
- Maintenance and Updates: Annual cost of 50,000 rupees for ongoing support, updates, and training.
- Training and Implementation: Initial cost of 15,000 for staff training and implementation support.

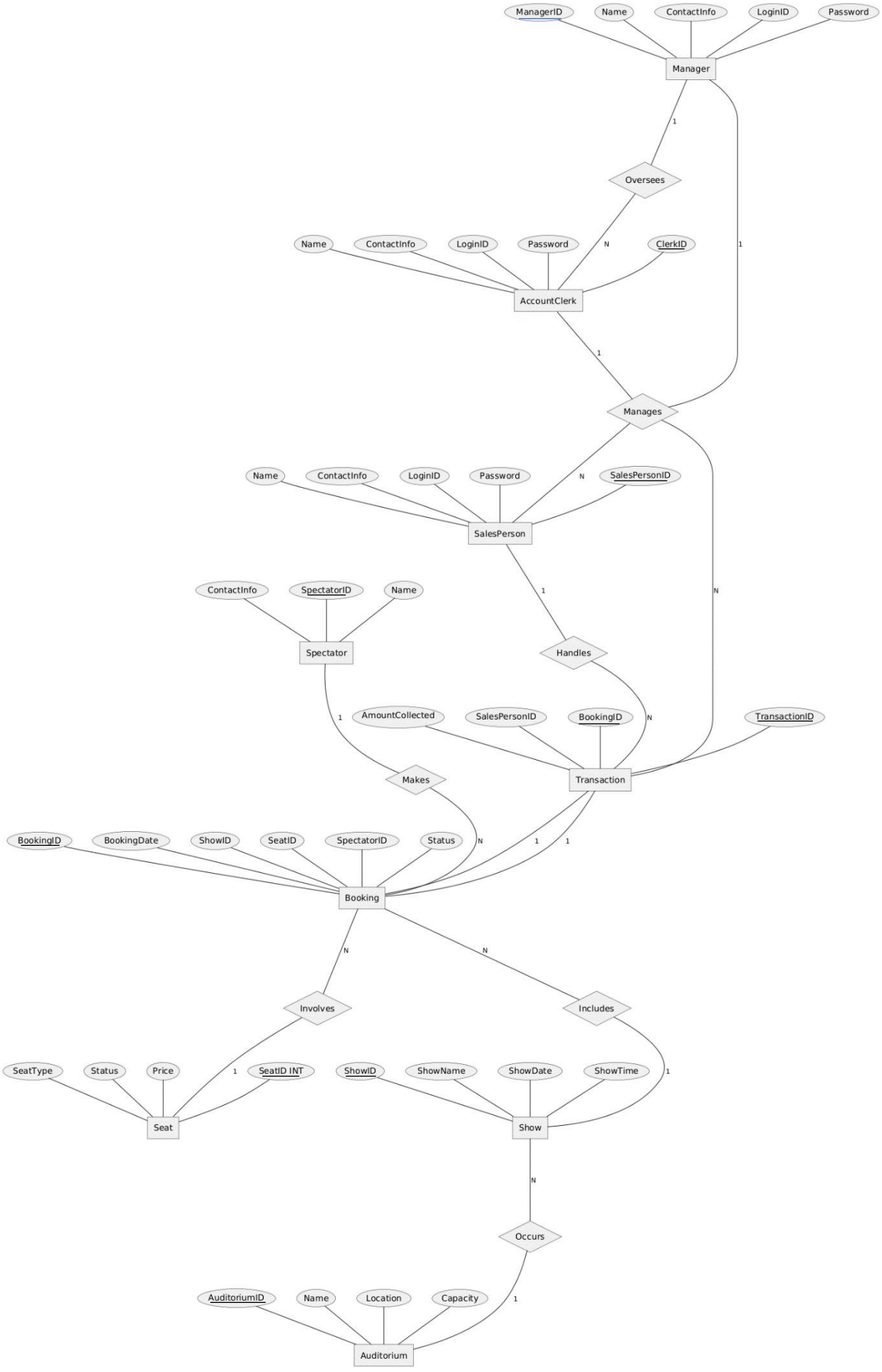
Benefits:

- Increased Efficiency: By automating the financial, sales, and reservation processes, human error and workload are decreased, leading to an increase in overall efficiency.
- Revenue Enhancement: Accurate tracking of seat availability and sales will maximize revenue opportunities.
- Improved Customer Satisfaction: Real-time seat availability and streamlined booking processes will enhance the spectator experience.
- Security and Data Integrity: Secure access control will protect sensitive data, reducing the risk of unauthorized access and data breaches.
- Net Benefit: The long-term benefits, including increased revenue, reduced errors, and improved customer satisfaction, outweigh the initial investment, making the project financially viable.

Evaluation of Technical Risk

- System Compatibility: Ensuring the new software integrates easily with existing hardware (high-end PCs) and open source software (Linux, MySQL, Apache).
- Data Migration: Risk of data loss during the transition from the manual system to the automated system; mitigated through careful planning and data backup.
- User Adoption: Risk of resistance from staff accustomed to the manual system; mitigated through proper training and support.

ER Diagram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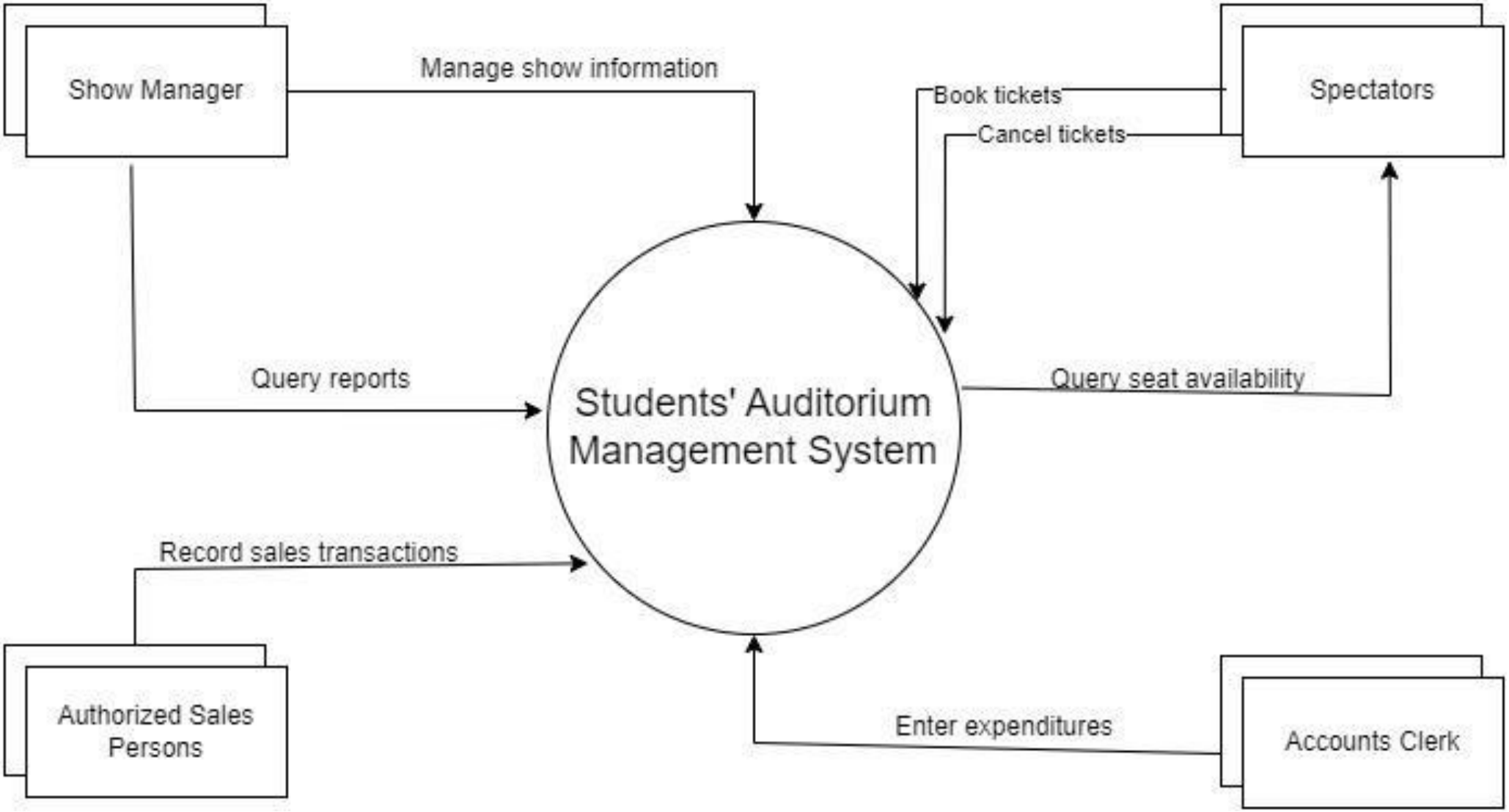
Data Flow Diagram level 0:



Data Flow Diagram level 1: