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1 Project Overview

An Event Ticketing System for the sale, management and validation of tickets for an Event Centre.

1.1 PROJECT SPONSOR

The Project will be sponsored by the Chief Information officer (CIO) of the business.

1.2 PROJECT TEAM MEMBERS

- The Product Owner
- The Business Analyst
- The Project Manager
- The Engineering team
- The Design Team
- The Project Stakeholders

2 Business Need

Our Event Centre, PRIME EVENTS needs a ticketing software to allow them sell multiple tickets for different events, allowing customers to browse and purchase these tickets.

2.1 BACKGROUND

The Event Centre is expanding its operations by moving to a bigger space with a many more facilities. As a result, they will be organizing a greater number of events and managing the sales of a lot more tickets than they currently do. Currently they print and distribute tickets manually which is tedious and takes a lot of time but has been easily manageable due to the low number of events and tickets sold. Since they are expanding operations and will be managing a large number of events and tickets, this will require an event ticketing software to effectively manage the sales of multiple tickets for all the events.

2.2 BUSINESS OBJECTIVES

The main objective of this ticketing system is to facilitate the sale of tickets to customers but the specific objectives that the business wants to achieve are:

- **B0-1:** Multi-Event Support with Multiple ticket Categories. The business needs a system that will handle several events with multiple ticket categories simultaneously with unique configurations for each.
- **B0-2:** Automating Capacity Management. Set limits for ticket availability and track real-time sales to avoid overbooking
- **B0-3:** Offering dynamic pricing with promotions and discounts: Pricing adjustments based on different factors, options to include promo codes, early bird discounts, etc.

3 Business Requirements

Automating Ticket Purchasing and Validation. This should include:

- Enable organizers to create manage and edit event details and ticket types
- Support multiple ticket types
- Deliver tickets through email with unique coded for validation
- Support secure and seamless processing
- Enable User accounts and authentication
- Real-time inventory management
- Implement ticket scanning and validation
- Report and Analytics on sales and revenue
- Ensure scalability and performance with high traffic volumes
- Ensure compliance with data protection laws and secure authentication mechanisms

4 Business Value Estimates

4.1 COSTS

- Initial Development Cost- \$150,000
- Cost of Integration (CRM, Email and Payment)- \$50,000
- Training Cost- \$10,000
- Maintenance Cost- \$100,000 (annually)
- **TOTAL COST OF OWNERSHIP** (15 years)- \$1,710,000

4.2 BENEFITS

This system aims to provide both tangible and intangible benefits to the business. The Intangible benefits include:

- Enhanced Customer Experience
- Brand Reputation and Loyalty
- Data-driven decision making
- Compliance and security
- Time saving
- Scalability
- Increased accessibility

However, the tangible benefits that the system aims to provide include:

- Increased revenue generation from ticket sales- \$200,000 annually
- Cost savings from staffing and printing & Distribution- \$120,000 annually
- Marketing and Efficiency gains- \$50,000
- Fraud prevention- \$50,000
- **TOTAL ANNUAL BENEFITS**- \$420,000

Discount Rate- 8%

Therefore, the Net Present Value (NPV) over a 5-year period is estimated to be- **\$289,198.10**

5 Requirements

The following table consists of the core requirements that this process must follow:

ID	DESCRIPTION	TYPE	REFERENCE
BR-001	The system must allow event organizers create events by specifying the title, date and time, description and location	Functional	Stakeholder Interview-Product owner
BR-002	The system shall allow event organizers create multiple ticket types with different prices, quantities and discounts for each event	Functional	Stakeholder Interview-Product owner
Br-003	Event organizers must have a dedicated dashboard to track ticket sales	Functional	Stakeholder Interview-Product owner
BR-004	The system must display all available tickets to customers to select from	Functional	Interview with SMEs
BR-005	The system shall allow users to search for specific tickets or events	Functional	User Interviews
BR-006	The system should allow users to filter and browse search results to find tickets based on date, category or location	Functional	User Interviews
BR-007	The system must display ticket/event details for users to view	Functional	User Interviews
BR-008	The system should allow the users view all the available ticket categories with their offerings and pricing	Functional	User Interviews
BR-009	The system must allow users to select the number of tickets they want to purchase	Functional	User Interviews
BR-010	The system shall have a “cart” where users can add tickets that they want to purchase	Functional	User Interviews
BR-011	The system shall allow users to add a maximum of 20 tickets to their cart	Non-functional	Stakeholder Interviews-IT department
BR-012	When a ticket is selected, the system shall allow users to purchase the ticket	Functional	User Interviews

BR-013	The system should allow users, put in a discount or referral code if applicable	Functional	Interview with SMEs
BR-014	The system must allow users view and select an available payment method for their ticket purchase	Functional	Interview with SMEs
BR-015	The system shall allow users put in a payment information for their preferred method	Functional	Interview with SMEs
BR-016	The system must allow users confirm their payment details before finalizing the purchase	Functional	Stakeholder Interview-Product owner
BR-017	The system must ask for permission to store user payment details	Functional	User Interviews
BR-018	If the payment is not successful, the system shall inform the users with the accompanying error message and retry options	Functional	User Interviews
BR-019	If the payment is successful, the system shall inform the user with an email confirmation, and provide the purchased ticket	Functional	User Interviews
BR-020	Users must be able to register, log-in and manage their profiles	Functional	User Interviews
BR-021	The system shall allow users select their preferred language	Functional	User interviews
BR-022	The system shall allow users view all their purchases, including past purchases	Functional	User Interviews
BR-023	The system shall generate a unique barcode for each purchased ticket	Functional	Stakeholder Interviews-IT department
BR-024	The system must enable event staff to scan barcodes to validate tickets at the venue	Functional	Stakeholder Interviews-IT department
BR-025	The system shall flag duplicate or invalid tickets during the validation process	Functional	Stakeholder Interviews-IT department
BR-026	The system should support real-time updates of ticket availability	Non-functional	Stakeholder Interviews-IT department

BR-027	When the limit for a particular ticket has been reached the system should stop the purchase of that ticket.	Non-functional	Stakeholder Interviews-IT department
BR-028	When applicable, the system shall adjust pricing based on several factors for the users	Non-functional	Stakeholder Interviews-IT department
BR-029	The system shall support three main languages- English, French and German	Non-functional	Stakeholder Interviews-IT department
BR-030	The system must handle 3,000 concurrent users without performance degradation	Non-functional	Stakeholder Interviews-IT department
BR-031	All sensitive user data must be encrypted using 256-bit encryption	Non-functional	Stakeholder Interviews-IT department
BR-032	The system must implement multi-factor authentication (MFA) for admin access	Non-functional	Interview with SMEs
BR-033	The system must be accessible to users with disabilities and comply with WCAG 2.1 Level AA standards	Non-functional	Interview with SMEs
BR-034	The system should ensure consistent ticket validation even under heavy load	Non-functional	Stakeholder Interviews-IT department
BR-035	If server restarts, event data and ticket inventory must remain accurate	Non-functional	Stakeholder Interviews-IT department
BR-036	The system must integrate seamlessly with CRM system	Non-functional	Stakeholder Interviews-Product owner
BR-037	The system must adhere to GDPR for user data protection	Non-functional	Interview with SMEs

6 Data Flow Diagram

