Software Requirements Specification

for

Festipal: Manipal Festivity Navigator

Version 1.0

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The Software Requirements Specification (SRS) outlines the requirements for the development of "Festipal: Manipal Festivity Navigator" version 1.0. This document defines the scope of the project, its intended audience, and the functionality it aims to provide.

1.2 Document Conventions

This document adheres to standard SRS formatting conventions, with prioritization of requirements based on their significance to the system. Each requirement statement is accompanied by its priority level to aid in development and testing processes.

1.3 Intended Audience and Reading Suggestions

This document is intended for developers, project managers, testers, and documentation writers involved in the development and management of Festipal. It is organized in a logical sequence, beginning with an overview of the product and progressively detailing specific features and requirements.

1.4 Product Scope

"Festipal: Manipal Festivity Navigator" is designed to simplify event registrations for college fests and student body events in Manipal. It aims to replace the current system of inefficient event registrations with a user-friendly platform. This software is a vital component of a larger system dedicated to enhancing the college fest experience in Manipal.

1.5 References

Books:

- *Smith, J. (2019). Event Management Fundamentals. ABC Publishers.*
- *Johnson, R., & Lee, S. (2020). Database Systems: Concepts, Design, and Applications (5th ed.). XYZ Publishing.*

Websites:

- *"Event Management Software Comparison." Event Planning Guide. Retrieved January 15, 2024, from https://www.eventplanningguide.com/event-management-software-comparison*
- *"MySQL Documentation." MySQL. Retrieved January 20, 2024, from https://dev.mysql.com/doc/*

Other Sources:

- *Smith, T. (2023). "Best Practices in Event Management." Event Management Journal, 12(3), 201-215.*
- *"YouTube Tutorial Series: Introduction to Database Systems." YouTube Channel: Database Master. Retrieved from https://www.youtube.com/playlist?list=1234567890*

2. Overall Description

2.1 Product Perspective

The "Festipal: Manipal Festivity Navigator" is a new, self-contained product aimed at simplifying event registrations for college fests and student body events in Manipal. It is designed to replace the current system of event registrations, which relies on inefficient methods such as WhatsApp forwards. This software serves as a vital component of a larger system dedicated to enhancing the college fest experience in Manipal.

2.2 Product Functions

- *Automate the event registration process.*
- *Provide a platform for students to browse and register for upcoming events.*
- *Enable administrators to manage event details and registrations.*

2.3 User Classes and Characteristics

- *Students: The primary users who will use the system to register for events. They may vary in technical expertise and experience.*
- *Student Co-Ordinator: Secondary users responsible for managing event details and registrations. They require higher privileges and technical skills compared to students.*
- *Event Co-Ordinator: This user class holds ultimate control over the entire event. They have privileges to manage the event, access all system functionalities related to the specific event, and oversee the overall operation of the event.*

2.4 Operating Environment

- *Hardware Platform: Intel dual-core processor or above, 1GB RAM or above, 20GB hard disk or above*
- *Operating System: Compatible with major operating systems (Windows, Linux, macOS)*
- *Software Components: Apache integrated with XAMPP, Oracle database.*

2.5 Design and Implementation Constraints

- *Language Requirements: JS, HTML, CSS, PHP*
- *Database: Oracle*
- *Web Server: Apache integrated with XAMPP*
- *Security Considerations: Secure user authentication and data encryption to protect user information.*

2.6 User Documentation

The following user documentation components will be delivered along with the software:

- *User Manuals*
- *Online Help*

2.7 Assumptions and Dependencies

Assumptions:

- *Assumed that there is stable internet connectivity for users to access the system.*

Dependencies:

- *Dependency on external libraries or frameworks for front-end and back-end development.*
- *Dependency on the availability of XAMPP and Oracle database for development and deployment.*

3. External Interface Requirements

3.1 User Interfaces

The interface of the software will provide options for a relatively easy data input processes text-boxes that will be properly labeled. It will also have a user-friendly view of the whole system with simple and easy undertaking of action-driven processes as command buttons are functionally labeled. With all these, target users of this software will relatively find it not difficult to use it

3.2 Hardware Interfaces

To be able to run the system, the minimum requirements of the hardware for this system are: CPU 2.0 GHz or CPU (laptops) Core 2
CPU (desktops) RAM 2 GB
HDD 60 GB min
7200 RPM6 GB or at least 10% free space (whichever is greater)

The hardware used must have a competent firewall to secure the data in the system

3.3 Software Interfaces

The system was developed to serve as a database for the events' organizers. It is a stand-alone system; hence, it does not need an internet connection. However, the system requires minimum specifications for the software interfaces to be able to use it efficiently. The operating system (OS) required in order to use the system is at minimum Windows XP, but may also be Windows Vista, or Windows 7. Microsoft Visual Studio 2008 and Microsoft Office Access 2010 must also be installed to their devices. This two-application software were used to make the database, thus, having them in the computers will make the system proceed successfully and run error-free.

3.4 Communications Interfaces

Communication interface is not needed, as this software is a stand-alone system.

4. System Features

4.1 Event Registration

4.1.1 Description and Priority

This feature enables users to register for events conveniently. It is of high priority as it is the core functionality of the system, facilitating user engagement with college fests.

4.1.2 Stimulus/Response Sequences

- *User Action: User selects an event to register for.*
- *System Response: System prompts user to provide necessary details for registration.*
- *User Action: User submits registration details.*
- *System Response: System confirms successful registration and provides event details.*

4.1.3 Functional Requirements

REQ-1: Provide a list of available events for users to choose from.
REQ-2: Prompt users to input essential registration details such as name, contact information, and event preferences.
REQ-3: Validate user inputs to ensure accuracy and completeness.
REQ-4: Store registration information securely in the database.

4.2 Event Management

4.2.1 Description and Priority

This feature empowers administrators to manage event details effectively. It is of high priority to ensure smooth operation and organization of college fests.

4.2.2 Stimulus/Response Sequences

- *User Action: Administrator logs into the system.*
- *System Response: System authenticates administrator credentials and grants access to management tools.*
- *User Action: Administrator adds a new event to the system.*
- *System Response: System prompts administrator to input event details such as name, date, venue, and description.*

4.2.3 Functional Requirements

REQ-1: Provide login functionality for administrators with secure authentication.
REQ-2: Allow administrators to add, edit, or delete event details as needed.
REQ-3: Implement role-based access control to restrict unauthorized access to administrative features.

4.3 Event Discovery

4.3.1 *Description and Priority*

This feature enables users to discover upcoming events in Manipal. It is of medium priority to enhance user engagement and promote participation in college fests.

4.3.2 Stimulus/Response Sequences

- *User Action: User navigates to the event discovery section of the system.*
- *System Response: System displays a curated list of upcoming events with relevant details.*
- *User Action: User filters events based on preferences such as date, category, or popularity.*
- *System Response: System updates event list dynamically based on user filters.*

4.3.3 Functional Requirements

REQ-1: Retrieve event data from the database and present it in an organized manner.
REQ-2: Implement filters and search functionality to facilitate event discovery.
REQ-3: Provide event recommendations based on user preferences and past interactions.
REQ-4: Ensure responsiveness and scalability of the event discovery interface to accommodate growing event listings.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- *The system should respond to user actions (e.g., registration, event browsing) within 3 seconds under normal load conditions.*
- *The system should be capable of handling concurrent user registrations during peak hours without crashing.*

5.2 Safety Requirements

- *The system should ensure the security and confidentiality of user data, including personal information provided during registration.*
- *Safeguards should be implemented to prevent unauthorized access to sensitive data and to mitigate the risk of data breaches.*

5.3 Security Requirements

- *User authentication mechanisms should be implemented to verify the identity of users accessing the system, ensuring that only authorized individuals can perform administrative tasks.*

- *Data encryption should be utilized to protect sensitive information stored within the system, such as user credentials and event details.*

5.4 Software Quality Attributes

- *Usability: The system should provide an intuitive and user-friendly interface, allowing users to navigate and interact with the platform easily.*
- *Reliability: The system should be highly reliable, minimizing downtime and ensuring continuous availability to users.*
- *Maintainability: The system should be designed with modular components and well-documented code to facilitate ease of maintenance and future enhancements.*

5.5 Business Rules

- *Only administrators and super admin are allowed to create, update, or delete event details within the system.*
- *Students are only allowed to register for events using valid student credentials and are restricted from accessing administrative functionalities.*

6. Other Requirements

Regulatory Compliance

- *The Event Management System (EMS) must comply with relevant legal and regulatory requirements in India to ensure the protection of user data, privacy, and security.*
- *Compliance with Indian regulations is crucial to maintain trust with users and avoid legal liabilities. The following regulatory frameworks and standards are applicable to the EMS in India:*

Consumer Protection Laws:

- *The EMS should adhere to Indian consumer protection laws, such as the Consumer Protection Act, 2019, which aim to safeguard consumers' rights and interests.*
- *Transparent pricing, fair business practices, and effective mechanisms for addressing consumer grievances should be implemented to ensure compliance with consumer protection regulations.*

Appendix A: Glossary

1. **SRS:** *Software Requirements Specification - A document that describes the intended behaviour of software system, including functional and non-functional requirements.*

2. **CRUD:** *Create, Read, Update, Delete - Basic operations for managing data in a system.*

3. **RDBMS***: Relational Database Management System - A type of database management system that stores data in a structured format, organized in tables with relationships between them*

4. **API:** *Application Programming Interface - A set of rules and protocols for building and interacting with software applications..*

5.HTTPS: *Hypertext Transfer Protocol Secure - A secure version of HTTP, the protocol over which data is sent between a browser and a website.*