**Prepare an SRS document in line with the IEEE recommended standards for the specified Case Study. (Non-Functional Requirements)**

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1. ***Introduction*** 
   1. ***Purpose***

*The purpose of this document is to specify the on-functional requirements for Expense Sharing app. Non-functional requirements define how the system should perform in terms of qualities, constraints, and characteristics. This document serves as a reference for developers, testers, and stakeholders involved in the project to ensure that the non-functional aspects of the system are clearly defined and met.*

* 1. ***Scope***

*This section outlines the scope of the document, which is focused on the non-functional aspects of the Expense Sharing App. It provides a comprehensive overview of the performance, security usability, and other quality attributes expected form the system. The non-functional requirements defined in this document will help guide the design, development and evaluation of the system.*

* 1. ***Definition, Acronyms, and Abbreviations***
* SRS: Software Requirements Specification
* UI: User Interface
* API: Application Programming Interface
* GDPR: General Data Protection Regulation
* HTTP: Hypertext Transfer Protocol
* SSL: Secure Sockets Layer
  1. ***References***
* IEEE Std 830-1998, "IEEE Recommended Practice for Software Requirements Specifications."
* [Expense Sharing App Project Plan] (insert\_link\_here)
* [Expense Sharing App Functional Requirements] (insert\_link\_here)
  1. ***Overview***

*This section provides an overview of the document’s structure and contents. It acts as a guide to help reader navigate through the non -functional requirements specified in this document.*

*The subsequent sections detail the specific non-functional requirements for the Expense Sharing app, ensuring a clear understanding of the system’s expected performance, security measures, usability criteria and other quality attributes.*

1. **Non-Functional Requirements**
   1. ***Performance Requirements***
      1. ***Response Time:*** *The system should respond to user requests within a defined time frame.*
      2. ***Throughput:*** *The system should handle a certain number of transactions or operation per unit of time.*
      3. ***Scalability:*** *The system should be capable of scaling to accommodate increased load or usage.*
   2. ***Security Requirements***
      1. ***User Authentication:*** *Users must be securely authenticated to access the system.*
      2. ***Data Encryption:*** *Data should be encrypted to protect it from unauthorised access or breaches.*
      3. ***Authorization:*** *Users should only have access to the resources and features they are authorised to use.*
      4. ***Data Privacy:*** *Personal or sensitive data must be kept private and secure.*
   3. ***Availability and Reliability***
      1. ***Availability:*** *The system should be available for use according to specified uptime requirements.*
      2. ***Fault Tolerance:*** *The system should continue to operate even in the presence of hardware or software failures.*
      3. ***Backup and Recovery:*** *There should be mechanism in place to back up data and recover the system in case of failures.*
   4. ***Usability and User Experienced***
      1. ***User Interface:*** *The user interface should be user-friendly and intuitive.*
      2. ***Voice Recognition:*** *If applicable, voice recognition should be accurate and responsive.*
      3. ***User Guidance:*** *User should have access to guidance or help features when needed.*

* 1. ***Compatibility*** 
     1. ***Cross-Browser Compatibility:*** *The system should work seamlessly across different web browser.*
     2. ***Mobile Responsiveness:*** *The system should be responsive and user-friendly on various mobile devices.*

* 1. ***Performance Monitoring***
     1. ***Logging:*** *The system should be log relevant events and actions for monitoring and troubleshooting.*
     2. ***Performance Metrics:*** *Metrics should be collected to assess and optimize system performance****.***
  2. ***Legal and Compliance***
     1. ***Data Retention:*** *The system should adhere to legal requirements regarding data retention.*
     2. ***Accessibility:*** *The system should meet accessibility standards and regulations.*
  3. ***Documentation***
     1. ***User Documentation:*** *Provide documentation that helps users understand how to use the system.*
     2. ***System Documentation:*** *Provide documentation for developers and administrators, explaining the system’s architecture and configuration.*

***These non-*functional** **requirements are crucial for ensuring that the project meets performance, security, usability, and compliance standards. They serve as a foundation for designing, developing, and testing the system.**

**3. Overall Description**

**3.1 Product Perspective:** This section provides an overview of how the product or system fits into the broader context of related systems or components.

**3.2 Product Functions:** Describe the main functions or features that the product will offer.

**3.3 User Classes and Characteristics:** Identifies the different types of users who will interact with the product and describe their characteristics or roles.

**3.4 Operating Environment:** Specifies the environment in which the product will operate, including hardware, software, and network requirements.

**3.5 Design and Implementation Constraints:** Lists any constraints or limitations that may impact the design and implementation of the product.

**3.6 User Documentation:** Outlines the documentation that will provide to users to help them understand and use the product effectively.

**3.7 Assumptions and Dependencies:** Documents any assumptions

made during the requirements gathering process and dependencies on external factors or systems.

**4. Appendices**

**4.1 Glossary:** Provides definitions for technical terms, acronyms, jargons used throughout the requirements document.

**4.2 Analysis Models:** Includes any diagram, charts, or models that helps illustrate and explain the requirements more clearly.

**4.3 Supplementary Requirements:** Contains additional requirements that may not fit into the main sections but are still important for the project’s success. The section can include non-functional requirements, quality attributes, or relevant information.

**These sections help structure and organize the information in your requirements document, making it easier for stakeholders to understand the product’s context, functionality, and constraint.**