Software Requirements Specification

ShareWize: Expense Sharing Web App

Group 24

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Contribution Summary

Names	Contribution (Section #)
Arun Rathaur	3,4,5,6
Veeral Patel	3,4,6,7,8
Ayaz Lockhat	5,7,8
Mubtasim Rahman	1,2,4,8

Revision History

Version	Date	Change	Revision
0	October 20, 2023	-	-
1	Jan 20, 2024	Updated the formatting of the page which was wrong and added more info	1

Our Team

Name	Email	Role
Arun Rathaur	rathaa1@mcmaster.ca	Developer (Data and Security)
Ayaz Lockhat	lockhata@mcmaster.ca	Developer (Front-End)
Mubtasim Rahman	rahmam91@mcmaster.ca	Developer (User Interface and Design)
Veeral Patel	patev18@mcmaster.ca	Developer (Back-End)

List of abbreviations and notations, naming conventions and definitions

Term	Definition
P0-P3	Priority 0 to Priority 3
SRS	Software Requirement Specification
API	Application Programming Interface
GDPR	General Data Protection Regulation
PHIPA	Personal Health Information Protection Act

i18n	Library used for translations
HTTPS	HyperText Transfer Protocol Secure

1. Purpose of Project

1.1. Goal of the Project

Our goal is to empower our users by delivering a user-centric and comprehensive expense-sharing solution that simplifies the process of splitting bills, tracking shared expenses, and enhancing financial transparency within groups. Our primary objective, as a service goal, is to provide a highly efficient, user-friendly, and supportive platform that fosters harmonious financial interactions among friends, roommates, and social circles. As we continue to evolve, we may also explore revenue goals to sustain and enhance the service for our users.

1.2. User Business

With a strong emphasis on ease of use and user-centric design, our foremost expectation is to cultivate a base of returning users who find value and convenience in our expense-sharing service. As such, tracking information about repeat business is integral to quantifying our goal of creating a sustainable, user-focused platform.

1.2.1. User Retention and Repeat Business

Our commitment to delivering a user-friendly and efficient service is driven by the desire to establish long-term relationships with our users. We recognize that a successful user experience isn't limited to the first interaction but extends to the repeat use of our platform. We will track user engagement, frequency of use, and user satisfaction metrics to gauge the extent to which our service encourages repeat business.

1.2.2. Future Revenue Consideration

While our primary focus is on providing a valuable service, we acknowledge the potential for future revenue goals to sustain and enhance our application. Premium features and services may be introduced to cater to specific user needs.In this context, revenue from premium customers will become an important metric to measure the success of potential revenue models. We will track premium subscriptions, user migration to premium plans, and the overall contribution of premium customers.

1.2.3. User Feedback and Iteration

User feedback will be sought and acted upon to refine our service. We will iterate on the platform based on user input, ensuring that the service remains user-centric and conducive to repeat use.

2. Stakeholders

2.1. The Client

We have no external entity or organization commissioning this project; as such, the client for this capstone project is the Computer Science Department within McMaster University. This includes but is not limited to:

- Dr Mehdi Moradi, course instructor
- Mehrdad Eshraghi Dehaghani and Amir Hossein Sabour, teaching assistants

2.2. The User

The primary users of the application are groups of friends, roommates, and other social circles looking for an efficient solution to simplify the process of splitting bills and tracking shared expenses. These users often engage in shared financial activities and seek a streamlined, user-friendly tool to manage these interactions seamlessly.

2.3. Additional Stakeholders

2.3.1. Project Team(Internal Stakeholders)

As the proposers and implementers of the project, our team is a critical part of the internal stakeholders. Responsibilities include defining project goals, designing, developing, and delivering the project's outcome, adhering to the project plan and budget, and managing project risks.

2.3.2. Regulatory Authorities

Regulatory bodies responsible for ensuring the privacy and security of user data may have specific requirements that our project must adhere to. Compliance with data protection laws and standards, such as GDPR, PHIPA, or local data protection regulations,will be a critical aspect of our project.

2.3.3. Third Party API Services

External services or APIs (e.g., payment gateways, cloud hosting providers).

3. Project Constraints

3.1. Solution Constraint
Due to our limited experience in mobile app development, we have opted to develop a web-based application with adaptability to ensure a seamless mobile user experience.

3.2. Budget Constraint
As students with constrained financial resources, the enhancement of our application's capabilities could be significantly enriched with a more substantial budget allocation, allowing for the incorporation of superior services to be added to our application.

3.3. Time Constraint
The project is scheduled for completion by April 2024, and it is imperative to acknowledge that the availability of team members will fluctuate due to academic commitments.

3.4. Software Constraint
Our project faces constraints in the selection of software tools and resources due to our status as students with limited financial means. As a result, we are unable to access the optimal software solutions that would otherwise facilitate the efficient completion of our application.

3.5. Resource Constraint
Our project is subject to limitations stemming from the composition of our team, which comprises only four members. The efficiency of development would be notably enhanced with a larger team. Consequently, these constraints impose restrictions on the extent to which we can refine our application.

4. Functional Requirements

4.1. Authentication(P0)

4.1.1. Description
- Users must be able to create an account with a unique username and password.
- Users must be able to log in securely.
- The app should support password recovery or reset mechanisms.

- Users can have different roles, such as regular users and administrators.

4.1.2. Rationale
- Secure authentication is vital to protect user data and maintain confidentiality.
- Different user roles are essential for managing access to specific features, especially in a shared expense app where money is involved.