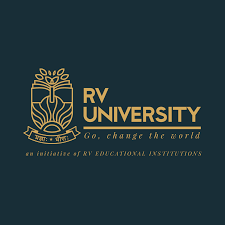
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**Diabetes**

**Software Requirements Specification**

**Version 1.0**

**6-06-2023**

**RVU Restricted**

1. Introduction

1.1 Purpose

The purpose of this document is to outline the software requirements for the development of a Diabetes . The system aims to assist individuals diagnosed with diabetes in managing their condition effectively, tracking their health metrics, and promoting a healthy lifestyle.

1.2 Scope

The Diabetes System will be a comprehensive web and mobile application that provides features for blood glucose monitoring, medication management, meal planning, exercise tracking, educational resources, and communication with healthcare professionals. The system will cater to individuals with diabetes, as well as healthcare providers involved in their care.

1.3 Definitions, Acronyms, and Abbreviations

- SRS: Software Requirements Specification

- DMS: Diabetes Management System

1.4 References

- American Diabetes Association (ADA) Standards of Medical Care in Diabetes

- International Diabetes Federation (IDF) Clinical Practice Recommendations for Diabetes

- HIPAA Privacy Rule

- GDPR (General Data Protection Regulation)

- Device manufacturers' documentation

- Relevant research papers or scientific articles.

Remember to include proper citations for each reference listed, following the appropriate citation style (e.g., APA, MLA) based on your organization's guidelines or industry standards.

1.5 Overview

The following sections of this document present the functional and non-functional requirements, system interfaces, and constraints for the Diabetes Management System.

2. Overall Description

2.1 Product Perspective

The Diabetes Management System will be a standalone web and mobile application designed to interact with various external devices such as glucose meters and wearable sensors. It will also integrate with electronic health record systems and other healthcare systems through appropriate interfaces and APIs.

2.2 User Classes and Characteristics

- Patients: Individuals diagnosed with diabetes who will use the system to monitor their blood glucose levels, manage medications, plan meals, track exercise, access educational resources, and communicate with healthcare providers.

- Healthcare Professionals: Doctors, nurses, dieticians, and other healthcare professionals who will utilize the system to monitor patient progress, provide guidance, and communicate with patients.

- Administrators: System administrators responsible for managing user accounts, system configuration, and ensuring data privacy and security.

2.3 Operating Environment

The Diabetes Management System will be accessible through web browsers and mobile applications compatible with major platforms such as iOS and Android. It will utilize modern web technologies and adhere to relevant security and privacy regulations (e.g., GDPR, HIPAA).

2.4 Design and Implementation Constraints

- The system will be developed using scalable web application frameworks (e.g., Django, Ruby on Rails) and appropriate mobile application development technologies (e.g., React Native).

- The system should prioritize user experience, accessibility, and data privacy, complying with industry best practices and regulatory requirements.

3. Functional Requirements

3.1 User Management

- The system shall provide user registration and login functionality for patients, healthcare professionals, and administrators.

- Each user shall have a unique username and password for authentication and access control.

3.2 Blood Glucose Monitoring

- The system shall enable patients to record and track their blood glucose levels.

- Patients shall be able to input glucose readings manually or sync data from compatible external devices.

- The system shall display blood glucose trends over time through informative charts and graphs.

3.3 Medication Management

- Patients shall have the ability to input their medications, dosages, and schedules into the system.

- The system shall send medication reminders to patients based on their prescribed schedules.

- Patients shall be able to mark medications as taken or skipped, with relevant notifications sent to healthcare professionals if necessary.

3.4 Meal Planning

- The system shall offer tools for patients to plan balanced meals based on their dietary requirements and preferences.

- Patients shall be able to search for recipes, create meal plans, and track their daily nutritional intake.

- The system may provide recommendations and guidance for healthy eating habits specific to diabetes management.

3.5 Exercise Tracking

- Patients shall be able to track their physical activities, including exercises, steps, and other relevant metrics.

- The system shall allow patients to set exercise goals and provide feedback on their progress.

- Integration with popular fitness tracking devices or applications may be considered for automated data