Software Requirement Specification Report

"Online Medical System with Scannig Injuries"

Course Code: CSE-236

Course Title: Software Project 3

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Submission Date: 31/01/2024

Introduction

This document describes the functional and non-functional requirements for a wound diagnosis app that can be used to identify the cause of a cut. The app will use a combination of image recognition and symptom-based questioning to provide users with a diagnosis.

2. **Overall Description**

The app will be a mobile app that can be used on any device with a camera and internet access. The app will have the following features:

Image recognition: The app will use a machine learning model to identify the type and severity of a cut based on an image of the cut.

Symptom-based questioning: The app will ask the user questions about their cut, such as the location, size, and color of the cut, as well as any pain or other symptoms.

Diagnosis: The app will use the information from the image recognition and symptom-based questioning to provide the user with a diagnosis.

3. **System Requirements**

The app will require the following system requirements:

Operating system: Android or iOS(iPhone operating system)

Device: Any device with a camera and internet access

Internet connection: A reliable internet connection is required to use the image recognition feature.

Functional Requirements

The following are the functional requirements for Online Medical

User registration and authentication: Users must be able to register for an account and authenticate themselves in order to use for Online Medical.

Personal health profile: Users must be able to create and manage a personalized health profile that includes information such as medical history, medications, allergies, and lifestyle factors.

Symptom checker: Users must be able to use the symptom checker to identify the possible causes of their symptoms and receive recommendations for appropriate action.

Knowledge base: Users must be able to access the knowledge base to learn more about medical conditions, medications, and treatments.

Self-care resources: Users must be able to access the library of self-care resources and tips.

Connection with healthcare providers: Users must be able to connect with healthcare providers online.

Image recognition: The app must be able to accurately identify the type and severity of a cut based on an image of the cut.

Symptom-based questioning: The app must be able to ask the user questions about their cut in a clear and concise way.

Diagnosis: The app must be able to provide the user with a diagnosis that is accurate and consistent with medical best practices.

Non-Functional Requirements

The following are the non-functional requirements for for Online Medical

Performance: Online Medical must be able to handle a large number of concurrent users and requests without sacrificing performance.

Security: for Online Medical must be secure and protect user data from unauthorized access.

Reliability: for Online Medical must be reliable and available to users .

Scalability: for Online Medical must be scalable to accommodate future growth.

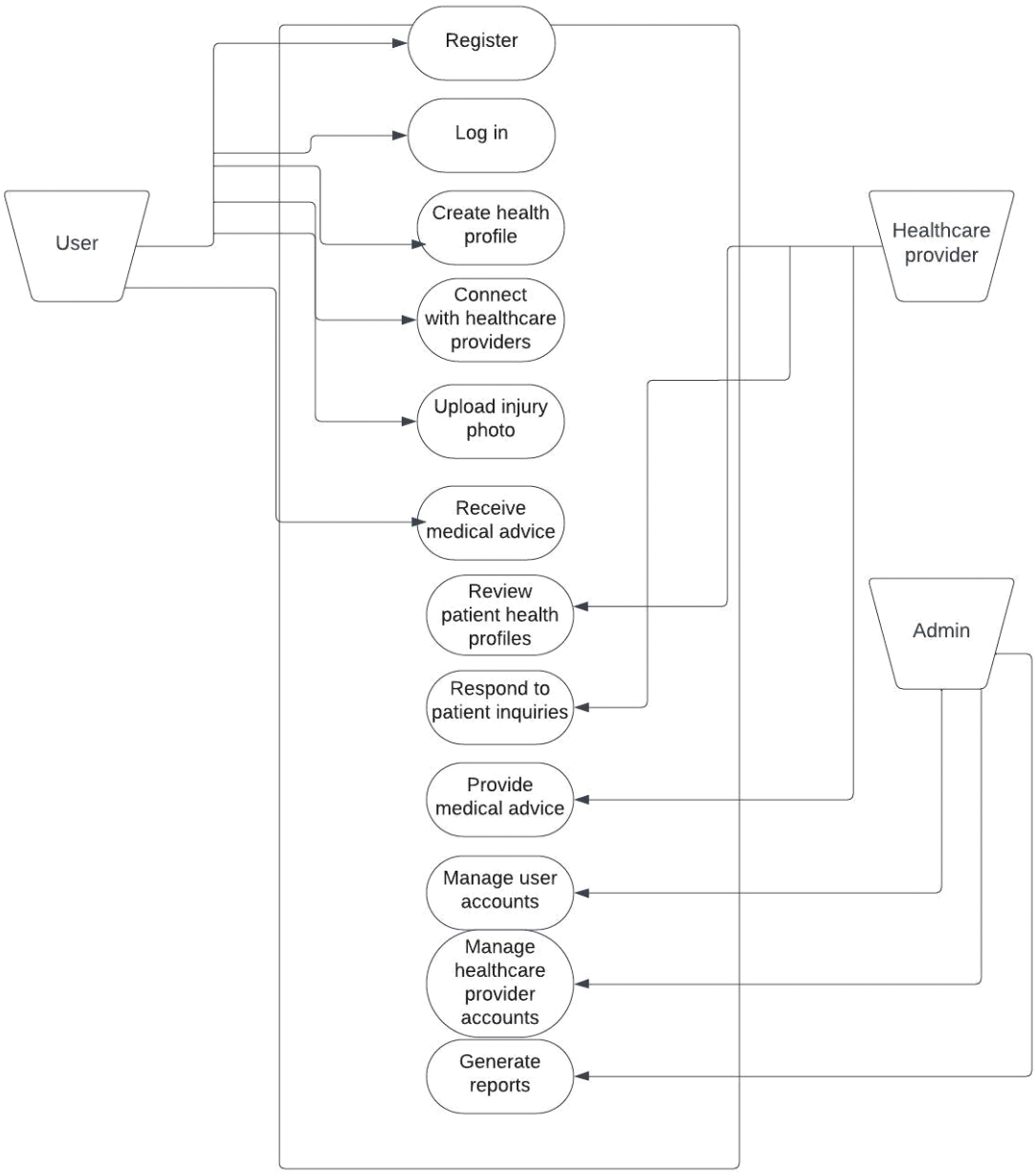
External Interface:

Image recognition interface: The app could use a cloud-based image recognition service, such as Google Cloud Vision API(Application programming interface) or Amazon Recognition.

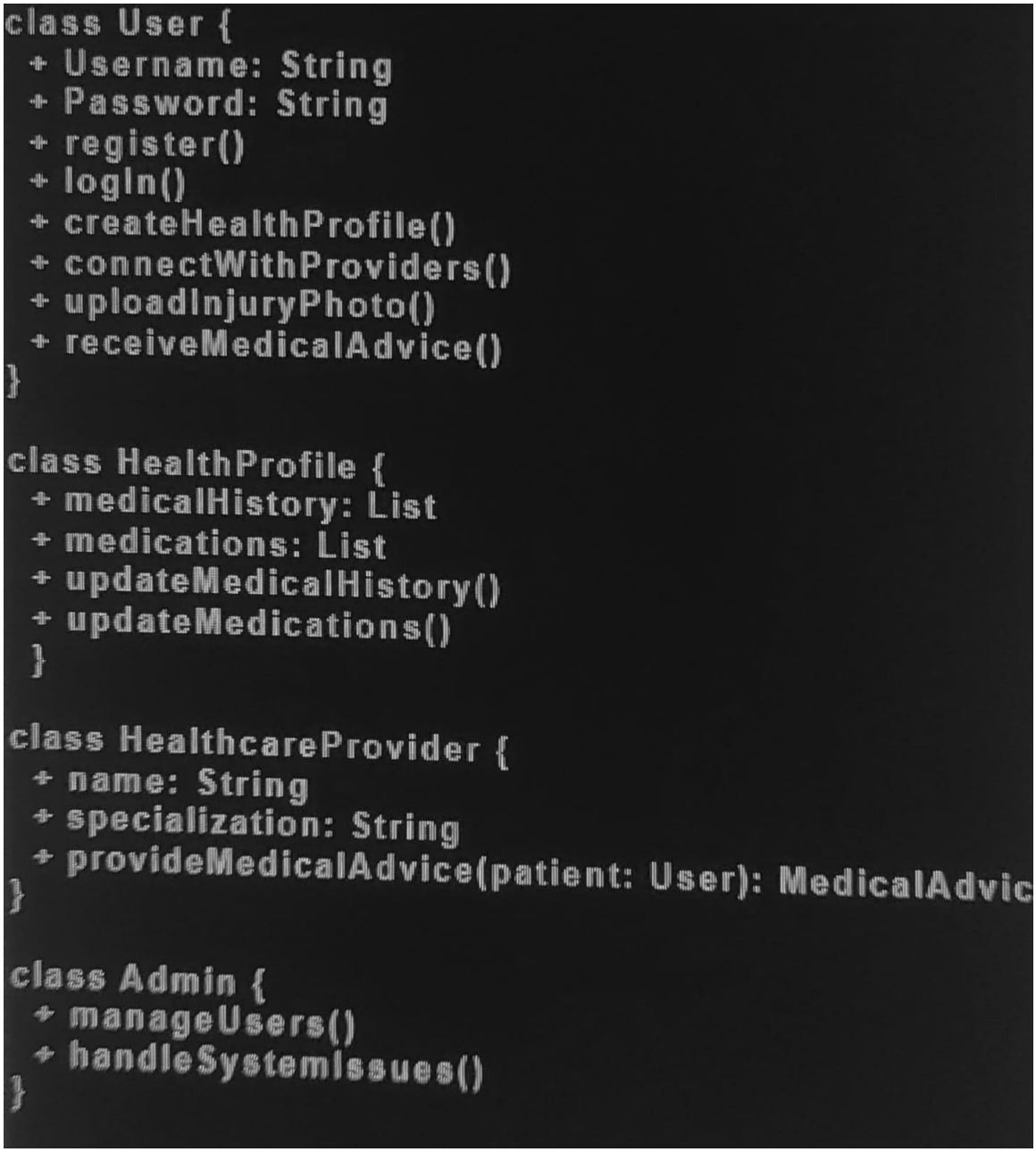
Symptom-based questioning interface: The app could use a conversational AI(Artificial Intelligence) or chatbot platform, such as Amazon Lex or Google Dialogflow.

Medical database interface: The app could use a publicly available medical database, such as the National Library of Medicine's MedlinePlus.

Case Diagram:


Register
Log in
Create health profile
Connect with healthcare providers
Upload injury photo
Receive medical advice
Review patient health profiles
Respond to patient inquiries
Provide medical advice
Manage user accounts
Manage healthcare provider accounts
Generate reports
User
Healthcare provider
Admin

UML diagram:



9. Appendices:

Privacy: The app should protect user data from unauthorized access.

Cut: A break in the skin that is caused by an external force, such as a sharp object or a blunt object.

Image recognition: A type of artificial intelligence (AI) that allows computers to identify objects in images.

Symptom-based questioning: A type of questioning that is used to gather information about a patient's symptoms.

Medical database: A collection of information about medical conditions, treatments, and medications.

User interface: The part of a software application that users interact with.

Image datasets: These datasets contain images of cuts that have been labeled with their type and severity.

Symptom datasets: These datasets contain information about the symptoms of different types of cuts.

Medical databases: These databases contain information about different types of cuts and their causes.

Accuracy: The percentage of times the app correctly identifies the type and severity of a cut.

Specificity: The percentage of times the app correctly identifies a cut as being of a certain type.

Sensitivity: The percentage of times the app correctly identifies a cut as being of any type.

Recall: The percentage of cuts that the app correctly identifies.

Bias: The app should not discriminate against any group of people.

Interpretation: The app should be clear and easy to understand.

Conclusion

This SRS provides a high-level overview of the requirements for a wound diagnosis app. It describes the overall purpose of the app, its features, system requirements, functional requirements, non-functional, use cases, and acceptance criteria requirements. This document will be used to guide the development and testing of the wound diagnosis app.

Additional Considerations

In addition to the requirements listed above, the following considerations should be taken into account when developing the wound diagnosis app:

Target audience: The app should be designed for a broad range of users, including people with varying levels of medical knowledge.

Cultural sensitivity: The app should be culturally sensitive and avoid making any discriminatory or offensive statements.

Localization: The app should be localized for different languages and regions.