HRH_SRS

Information Technology University (ITU)

Software Requirement Specification

(SRS DOCUMENT)

for

Hair Rescue Hub

Version 1.0

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1 Introduction

Hair loss and related concerns affect a significant portion of the global population, with more than 80% of men and nearly half of women experiencing significant hair loss during their lifetime. Despite the prevalence of these issues, finding a comprehensive and personalized solution remains a challenge. Hair loss can have profound emotional and social impacts, leading to decreased self-esteem, social anxiety, and even affecting one's professional image and success, especially in appearance-conscious fields.

In response to these challenges, we are introducing "Hair Rescue Hub," an innovative application aimed at addressing hair-related problems. Hair Rescue Hub goes beyond traditional treatments by providing a holistic approach to hair care. Through a combination of expert guidance, personalized solutions, and user-friendly features, Hair Rescue Hub empowers individuals to take control of their hair health effectively.

1.1 Purpose

The purpose of "Hair Rescue Hub" is to provide a comprehensive and personalized solution to address hair-related problems effectively. By offering expert guidance, personalized solutions, and user-friendly features, the application aims to empower individuals to regain control over their hair health and overcome the emotional and social challenges associated with hair loss. Through innovative approaches and accessible resources, Hair Rescue Hub seeks to improve the overall well-being and confidence of its users.

1.2 Scope

The scope of "Hair Rescue Hub" encompasses a wide range of features and functionalities aimed at addressing various hair-related concerns comprehensively. This includes providing expert guidance, personalized solutions, and user-friendly features to empower individuals in managing and improving their hair health. Additionally, the application will offer resources such as tips, tutorials, treatment schedules, home remedies, and real-time feedback through an AI chatbot. The scope also extends to facilitating video consultations with healthcare professionals, enhancing accessibility and convenience for users seeking expert advice. Overall, Hair Rescue Hub aims to cater to the diverse needs of individuals experiencing hair loss or related issues, ensuring a holistic approach to hair care within a unified platform.

1.3 Modules

Discover the diverse range of modules within Hair Rescue Hub, each meticulously designed to cater to your specific hair care needs and empower you on your journey to healthier, more vibrant hair. Our system will have:

- Expert Guidance
- Personalized Solutions
- User-Friendly Features
- Educational Resources
- Real-Time Feedback
- Treatment Schedule
- Video Consultations
- Community Engagement
- Data Management
- Integration

2 Overall Description

This section presents a high-level overview of Hair Rescue Hub and the environment in which it will be used, the anticipated users, and known constraints, assumptions, and dependencies.

2.1 Product Perspective

- **Comprehensive Feature Set:** Hair Rescue Hub incorporates various functionalities such as providing free tips and tutorials, enabling users to organize their treatment schedules, facilitating the purchase of authentic hair products, offering AI chatbot assistance, and facilitating online consultations with healthcare professionals.
- **Integration with Digital Health Landscape:** Positioned within the realm of digital health and wellness applications, Hair Rescue Hub seamlessly integrates with users' lifestyles, offering convenient access to specialized hair care solutions.
- **User-Centric Design:** The platform prioritizes user needs and preferences, delivering personalized solutions tailored to individual hair care requirements. It ensures ease of use, accessibility, and privacy for users seeking to improve their hair health.
- **Adherence to Industry Standards:** Hair Rescue Hub maintains compliance with industry regulations, emphasizing the authenticity of products, qualifications of healthcare professionals, and data security measures to safeguard user information.
- **Holistic Approach to Hair Care:** By addressing various aspects of hair health, from prevention to treatment, Hair Rescue Hub embodies a holistic approach, empowering users to proactively manage and enhance the vitality of their hair.

2.2 User classes and characteristics

- **General Users:** Individuals seeking solutions for hair fall, hair damage, and related concerns.
- **Busy Professionals:** Working individuals, like Ahmed, who require convenient and time-saving solutions.
- **Health-Conscious Consumers:** Users prioritizing health and wellness, seeking expert guidance and verified solutions.
- **Tech-Savvy Individuals:** Comfortable with technology, interested in innovative features like AI chatbots.
- **Beauty and Wellness Enthusiasts:** Passionate about maintaining appearance and well-being.
- **Novice Users:** New to hair care routines, may require additional guidance and educational resources.

2.3 Operating Environment

Hair Rescue Hub operates seamlessly on mobile platforms, catering to both **iOS** and **Android** devices. Users can access the application via smartphones and tablets, provided they have a stable internet connection. The app's interface is designed to be intuitive and user-friendly, ensuring smooth navigation and interaction. Compatibility across various devices ensures accessibility for a wide range of users. Additionally, stringent security measures are in place to safeguard user data, payment transactions, and confidentiality during online consultations.

2.4 Design and Implementation Constraints

- **Platform Limitations:** Hair Rescue Hub must adhere to the guidelines and restrictions imposed by app stores (e.g., Apple App Store, Google Play Store) regarding content, functionality, and user experience.
- **Compatibility Challenges**: Ensuring compatibility with a diverse range of mobile devices, operating systems, and screen sizes presents implementation challenges that require careful consideration during development.
- **Data Privacy Regulations:** Compliance with data privacy laws and regulations, such as GDPR and CCPA, imposes constraints on data collection, storage, and processing practices to protect user privacy.
- **Resource Limitations:** Availability of resources, including time, budget, and technical expertise, may impose constraints on the development process and timeline for implementing new features or updates.
- **Integration Complexity:** Integrating third-party services, such as payment gateways for product purchases or video conferencing platforms for online consultations, may introduce complexities and require thorough testing to ensure seamless functionality.

3 Requirement Identifying Technique

This section describes the requirements identifying technique(s) which further help to derive functional requirements specification. The selection of the technique(s) will depend on the type of project. For instance;

- **Use case (detail use case)** is an effective technique for interactive end-user applications.
- **Event- response table** is for real-time system in which most of the functionalities are performed at backend.
- **Storyboarding** for graphically intensive applications.

4 Functional Requirements

These are the software capabilities that must be implemented for the user to carry out the feature’s services or to perform a use case.

4.1 Free tips & tutorials

Identifier	FR-1
Title	Free tips & tutorials
Requirement	Give our users free tips & tutorials on how they can avoid hair fall or hair damage , and recover from this.
Source	Customer Support Department
Rationale	Position the platform as a comprehensive resource for users' well-being.
Business Rule	The content should be evidence-based and endorsed by qualified experts.
Dependencies	User profile creation and management system to personalize tips based on individual needs.
Priority	High (This feature aligns with the core value proposition of the platform).

4.2 Time-Saving Convenience

Identifier	FR-2
Title	Time-Saving Convenience
Requirement	There will also be a schedule of treatment organized by the user himself.

Source	User Feedback and Requests
Rationale	Empower users to take control of their treatment plans
Business Rule	Ensure privacy and security of user-created schedules. The scheduling feature should be intuitive and easy to use.
Dependencies	Calendar integration or a scheduling module.
Priority	High (User customization is a key feature for your platform

4.3 Authentic Product

Identifier	FR-3
Title	Authentic Product
Requirement	There will be a hair products purchase section for customers in the app
Source	E-Commerce Integration Team
Rationale	Generate additional revenue through product sales.
Business Rule	Only authentic and approved hair products will be listed. Secure and reliable payment processing.
Dependencies	User authentication and payment gateway integration.
Priority	High (product sales are important for the revenue stream).

4.4 AI chat bot/real-time feedback

Identifier	FR-4
Title	AI chat bot/real-time feedback
Requirement	Real-time feedback and guidance through an AI chat bot, accommodating users busy schedule.
Source	Customer Support Department
Rationale	Enhance user experience by providing immediate assistance.
Business Rule	The AI chatbot should be available 24/7 for real-time assistance.
Dependencies	AI chatbot system and natural language processing
Priority	Medium (it's a valuable feature but not central to the platform).

4.5 Online consultations

Identifier	FR-5
Title	Online consultations
Requirement	Conveniently connect with healthcare professionals for personalized advice, taking into account local environmental challenges.
Source	User Feedback and Requests
Rationale	Facilitate convenient access to healthcare expertise.
Business Rule	Healthcare professionals should be verified and licensed.
Dependencies	Integration with healthcare professionals' profiles and scheduling.
Priority	Medium (It's a valuable feature but not central to the platform)002

5 Non-Functional Requirements

This section guides the specific details relevant to Non-functional requirement of the project.

5.1 Reliability

Rel-1: The Hair Rescue Hub application shall have a Mean Time Between Failures (MTBF) of at least 30 days, where a failure is defined as the inability of users to access essential features.

Rel-2: In the event of a failure, the application should gracefully handle errors, providing clear error messages to users. The recovery time from a failure should be less than 5 seconds.

Rel-3: The consequences of a software failure should not result in data loss or corruption. A robust data backup and recovery system should be in place.

5.2 Usability

ReU-1: The Hair Rescue Hub application shall be designed with modularity and flexibility, allowing for easy integration of new features in the future.

ReU-2: User interfaces shall be intuitive, adhering to best practices for mobile application design. The application shall support a variety of devices and screen sizes to ensure a consistent user experience.

ReU-3: The COS (Customer Ordering System) shall allow users to retrieve their previous hair care routines and treatment plans with a single interaction.

5.3 Performance

Maint-1: Codebase shall adhere to coding standards and best practices to facilitate easy maintenance by future development teams.

Maint-2: Regular updates and bug fixes shall be released promptly to address any issues and improve the overall performance of the application.

Maint-3: The application architecture should be well-documented to enable efficient knowledge transfer among development teams.

5.4 Security

Sec-1: Hair Rescue Hub shall implement industry-standard encryption protocols to protect user data during transmission.

Sec-2: User authentication and authorization mechanisms shall be in place to ensure that only authorized individuals have access to sensitive information.

Sec-3: The application shall undergo regular security audits to identify and mitigate potential vulnerabilities. The results of these audits shall be used to improve the overall security posture.

6 External Interface Requirements

The information provided in this section ensures that the **system** communicates correctly with external components.

6.1 User Interfaces Requirements

6.1.1 User-friendly Design:

The UI should be intuitive and user-friendly, catering to users of all ages and technical backgrounds.

6.1.2 Compatibility:

The application should be compatible with popular smartphones (iOS and Android) and tablets.

6.1.3 Accessibility:

Ensure the UI is accessible to users with disabilities, adhering to accessibility standards.

6.1.4 Multilingual Support:

Provide support for multiple languages to accommodate a diverse user base.

6.1.5 Personalization:

Allow users to personalize their experience, such as themes or font sizes.

6.1.6 Interactive Elements:

Include interactive elements for engaging user experience, such as swipe gestures, buttons, and sliders.

6.1.7 Feedback Mechanism:

Implement a feedback mechanism for users to report issues or suggest improvements.

6.2 Software interfaces

6.2.1 Operating System Compatibility:

Support the latest versions of iOS and Android operating systems, ensuring regular updates for compatibility with new releases.

6.2.2 Third-party Integrations:

Integrate with external systems or APIs for features like video consultations or AI chatbot functionalities.

6.2.3 Data Storage:

Specify the database system used for storing user data, ensuring security and compliance with data protection regulations.

6.2.4 Cloud Services:

If applicable, specify the use of cloud services for scalability and efficient data management.

6.2.5 Security Protocols:

Implement secure communication protocols to protect user data during transmission.

6.3 Hardware interfaces

6.3.1 Device Compatibility:

The app should run seamlessly on a range of devices, ensuring compatibility with various screen sizes and resolutions.

6.3.2 Camera Integration:

If video consultations are supported, integrate with the device's camera for video calls.

6.3.3 Sensor Integration:

Utilize device sensors (e.g., gyroscope) for features like augmented reality (AR) or personalized experiences.

6.4 Communications interfaces

6.4.1 In-app Messaging:

Provide an in-app messaging system for users to communicate with healthcare professionals or support.

6.4.2 Push Notifications:

Implement push notifications for important updates, reminders, or new content.

6.4.3 Video Consultation Interface:

If video consultations are supported, ensure a stable and secure interface for real-time video communication.

6.4.4 API Documentation:

If exposing APIs for third-party integrations, provide comprehensive documentation for developers.

6.4.5 Chatbot Integration:

If using AI chatbot, ensure seamless integration within the app for real-time feedback and assistance.

7 References

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