SOFTWARE REQUIREMENT SPECIFICATION

1. INTRODUCTION

1.1 Purpose

The purpose of this document is to specify the requirements of the OCR Mark Sheet Application.

1.2 scope

The OCR processing application lets users take pictures of mark sheets with their phone camera. It then uses OCR technology to turn the images into structured format .

1.3 Definitions, Acronyms, Abbreviations

OCR: Optical Character Recognition

1.4 References

Not applicable

1.5 Overall Description

The OCR processing application works on its own and has buttons and menus for users to click on. It uses OCR technology to read text from images.

2. OVERALL DESCRIPTION

2.1 Product Perspective

The OCR app works on its own.

2.2 Product Functions

User Authentication: Users can log in to the application using their credentials.

Capture Mark Sheets: Users can capture images of mark sheets using their device's camera.

OCR Processing: The application will use OCR technology to extract text from the captured images.

2.3 User Characteristics

The primary users of the application are educators who need to process mark sheets. Users should have basic knowledge of operating a smartphone or tablet.

2.4 User Constraints

Users must have access to a device with a functioning camera.

2.5 Assumptions & Dependencies

Users have access to a device with a functioning camera.

The application requires a valid internet connection.

2.6 Apportioning Requirements

Identify requirements that can be postponed to future releases.

3. SPECIFIC REQUIREMENTS

3.1 Interface Requirements

3.1.1 External Interface

The application will have a user-friendly interface that allows users to interact with the system easily.

3.1.2 Hardware Interface

The application will require a device with a functioning camera.

3.1.3 Software Interface

The application will use OCR technology for text extraction.

3.1.4 Communication Interface

The application will require an internet connection for user authentication and data storage.

3.2 Functional Requirements

3.2.1 Use Case Model / Information Flows

Use Case 1: User Authentication

Use Case 2: Capture Mark Sheets

Use Case 3: User Creation

3.2.2 Use Case Specifications / Process Description

Already Done

3.2.3 Analysis Classes / Data Dictionary

Analysis Classes

1. User

- Attributes: username, password,.

- Methods: authenticate()

2. Admin

- Attributes: username, password

- Methods: userCreation()

Data Dictionary

1. User Table\*

- Fields: id, username, password\_hash, email, role

2. Session Table

- Fields: id, user\_id, token, created\_at, expired\_at

3.3 Performance Requirements

The application should process images and extract text quickly and accurately.

3.4 Logical Database Requirements

The application will store user credentials and extracted text securely.

3.5 Design Constraints

The application should have a user-friendly interface and be easy to navigate.

3.6 Software System Attributes

3.6.1 Reliability

The application should be reliable and not crash or lose data.

3.6.2 Availability

The application should be available to users at all times.

3.6.3 Security

User credentials and captured images should be stored securely.

3.6.4 Maintainability

The application should be easy to maintain and update.

3.6.5 Portability

The application should be compatible with different devices and operating systems.

4.Supporting Information

The OCR app makes it easier to scan and process mark sheets and question papers using text recognition. The technology behind it is advanced and can read text accurately from images. The app is designed to grow with future needs and can be integrated with other systems. Overall, it's meant to make processing mark sheets faster and more efficient for everyone involved.