

Purpose

The purpose of this document is to give the developers and owners an overview of how the system will function. This is the first version of the document and it has been written before any code or changes to the code. This document contains details regarding:

- Application of the software.
- Functionality of the software
- Employees and classes
- System Constraints

Document Conventions

The SRS was written using the Arial (san-serif) font. Any emphasis on keywords will be mentioned by bold lettering and sentences by italics. Tables will be provided whenever there is a need for comparisons.

Intended Audience and Reading Suggestions

This document is intended to help act as a guideline for the developers working on the project and keeping track of all the necessary information that is to be implemented in the project. This document will also help the owning organization to get basic ideas on the functionality of the project.

Chapter 2 of this document contains details of the project functions, Employees and classes, operating environment, user documentations etc.

Chapter 3 contains details regarding the external interface requirements, user interfaces, hardware interfaces.

Chapter 4 discusses the system features and Chapter 5 talks about all the non functional requirements.

Product Scope

The aim of this project is to digitize the existing documents of the organization so that files can be searched and retrieved digitally. Files are also automatically archived upon a set expiry date. The admin Employees can assign specific folders to certain groups of Employees and Employees also have the option to set folders to either public or private status. The system will provide a user friendly navigation bar to help guide the Employees through the entire system.

References

Django	https://docs.djangoproject.com/en/3.1/
Android	https://developer.android.com/
Firebase	https://firebase.google.com/docs
HTML & CSS	https://www.w3schools.com/html/html_css.asp

Product Perspective

The application will be a web based document digitization service. Employees will upload scanned documents through the web interface or the android application.. To access the files the user must log in to a web application on his/her computer using a web browser. In order to access any of these features the user must create an account and login to that account. Employees will also be allowed to login via google login. Accounts being created must be verified by the admin. Admins are the super Employees of the system, they can assign roles and create groups for Employees and folders.

A user can upload files and keep them in folders. Folders can be public and private. Contents belonging in public folders will be available for everyone on the system. Employees can search for a file using keyword searches or OCR. Upon reaching the expiry date, the system will automatically archive the files.

Product Functions

- Registration through a web portal.
- Profile activation by system administrator.
- Role assignment by system administrator.
- File upload/view by user.
- Automated file archiving.
- File search by keyword/OCR.
- Creating public/private folders.
- Assigning folders to groups by system administrator.

User Classes and Characteristics

Employee- A user who is employed by the organization and holds a title below executive or head of department. Can upload and search for files in all public folders. Can only access files from private folders that they are given passwords to. This user can also create public and private folders.

System Administrator - A user who the organizer promotes to oversee every operation in the system. This user can view every file in all public and private folders. This user can also assign other employees to particular groups and give them access to specific folders. A system administrator is also responsible to confirm authentication on new users to the system.

Operating Environment

The entire system is going to exist on a web application and there will also be an android application. To access the application user must ensure that he/she has access to a computer or mobile device and that internet access.

Design Implementation and Constraints

1. Accounts with 3 failed login attempts should block.
2. Idle time off 15 minutes should automatically log out.
3. Include 3 indexes per document.
4. Minimum Resolution is 200dpi.
5. Capable of scanning and uploading 36,00,000(estimated) pages documents.
6. Only alpha and numeric keys are allowed in the username and password field.
7. Scanned images will be saved using industry standards, such as, TIFF, G4,PDF/A, searchable PDF or a like.

User Documentation

Assumptions and Dependencies

We are assuming that all users will have access to a computer device or mobile phone to use the system.

User Interfaces

Users will be greeted by a sign-in page where he/she can either sign-in or create a new account. If the user successfully enters the login credentials he/she will be taken to the user dashboard. If the user is new then they must create a new account and then login if the system administrator grants the access.

Once signed in, the user is greeted to a dashboard. The dashboard will help navigate the user throughout the entire system where they can add,store and view files in different folders both public and private.

Hardware Interfaces

For the hardware interfaces, as the system is being developed as a web application and mobile application there are no restrictions to access the web application but the mobile application is only being developed for the Android OS.

It is also expected that the user will have a general idea on how to use the mobile device camera as the mobile app will use it to scan documents.

Software Interfaces

For the web application part we'll be using basic HTML, CSS and JavaScript. For the mobile version on the app, we'll be using android.

Communications Interfaces

The means of communication between the different parts of the system is not necessary. The project will run on all web browsers as well as it's app.

System Features

Functional Requirements

This section contains all the functional requirements.

Record Management

Actor: Employee

1. View dashboard.
2. Upload document.
3. View folders.
 - a. Only permitted users and groups can view the uploaded/created records in assigned folders.
4. View repository.
 - a. The system will have a public repository where users can only view the uploaded/created records in the assigned public folder.
 - b. The system will have a private repository where only permitted users and groups can view the uploaded/created records in the assigned private folder.
5. View notifications.
6. Lock/Unlock files. [employee]

- a. Give view access.
 - b. Give edit access.
- 7. Assign users to files and folders.
 - a. Assign users to specific folders or files.
 - b. Assign groups to specific folders or files.
- 8. Upload an index file in CSV format and automatically link the attributes in designated file names without any limit. [employee]
 - a. The system can index each record using the CSV file.
 - b. No limit in index field.
- 9. Route records to one or more user accounts.

Actor: Admin

- 1. View dashboard.
- 2. Upload document.
- 3. View folders.
 - a. Admin can view every files and folders in the system.
- 4. View repository.
 - a. Admin can view both public repository as well as private repository of everyone.
- 5. View notifications.

Actor: System

- 1. Archiving
 - a. System automatically archives files upon expiry date.
- 2. Capture specific index in uploaded CSV document and automatically fill up the designated fields.

Accounts Management

Actor: Employee

1. Request to reset password ()
2. Upload avatar.
3. Login with google account.

Actor: Admin

1. Accept change of password using administration panel.
2. Change password.
3. Authorize reset password for employees.
4. Upload avatar.
5. Can access user management features.

Actor: System

1. Unlimited creation of user accounts.
2. Password reset via request email.
3. User management feature.
 - a. Assign roles.
 - b. Create groups with specific roles per folder.

Search and Retrieval Management

Actor: Employee

1. Search
 - a. OCR.
 - b. Filtering

2. Scan document

Actor: Admin

1. Can use search option.

- a. OCR.
- b. Filtering.

Actor: System

- 1. Retrieve text from scanned documents.
- 2. Store retrieved texts in the database.

Reports Management

Actor: Employee

- 1. View number of all the uploaded records by folder or user.
- 2. View number of all the pages in every record uploaded.

Actor: Admin

- 1. View number of all the uploaded records by folder or user.
- 2. View number of all the pages in every record uploaded.

Actor: System

- 1. Count all the uploaded records by folder or user.
- 2. Count all the pages in every record uploaded.

Notification Management

Actor: Employee

- 1. View real-time notification in dashboard.

Actor: Admin

- 1. View real-time notification in dashboard.

Actor: System

- 1. Send email notification in routed task.

Other Nonfunctional Requirements

This section contains non functional requirements.

5.1 Performance Requirements

1. Fast user experience.
2. Able to deal with high volume of data.
3. Use of camera.

5.2 Security Requirements

1. Account security.
2. Secure database.
3. Only employees and admin can login.

5.3 Safety Requirements

1. Backup and recovery mechanism for the digitized documents.

5.3 Software Quality Attributes

1. Internet Connection.
2. Available.
3. Reliable.
4. Maintainable.
5. Effective
6. Technologically advanced.
7. User friendly and organized.
8. Cost efficient.

Other Requirements

1. The system should have a dashboard for private and public folders, uploaded documents and notifications.
2. The system will have a public repository where users can only view the uploaded/created records in the assigned public folder.
3. Everyone will have a private repository, containing private and shared files and folders.
4. Digitized documents can be linked into the records on File Server.

Appendix A: Glossary

1. **Employee** - Employees of plan International.
2. **Admin** - The technical administrator. Can view every files and folders in the system.

Appendix B: Analysis Models

We are planning to include use case diagrams in the second version and the class diagrams after the prototype is finished.