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Reference Data Workflow application

Software Requirement Specifications

Table of Reference

|  |  |  |  |
| --- | --- | --- | --- |
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|  |  |  |  |

Contents

[1.0 Overview of the Application 4](#_Toc464141351)

[1.1 Scope of the Reference Data Workflow (RDWF) Application 4](#_Toc464141352)

[1.1.1 Unknown Stock: 4](#_Toc464141353)

[1.1.2 Missing Data: 4](#_Toc464141354)

[1.1.3 Invalid Date: 4](#_Toc464141355)

[1.2 Technology used in Application 4](#_Toc464141356)

[1.3 User Interface of the Application 5](#_Toc464141357)

[2.1 Scope of the Reference Data Workflow (RDWF) Application 6](#_Toc464141358)

[2.1.1 Unknown Stock: 6](#_Toc464141359)

[2.1.2 Missing Data: 6](#_Toc464141360)

[2.1.3 Invalid Date: 6](#_Toc464141361)

[2.2 Login Interface for different users- scope and role 6](#_Toc464141362)

[2.2.1 Scope and Role of Administrator User 7](#_Toc464141363)

[2.2.2 Scope and Role of Analyst User 7](#_Toc464141364)

[2.2.3 Scope and Role of Manager User 7](#_Toc464141365)

[2.3 Lifecycle of item in each Workflow queue 7](#_Toc464141366)

[2.3.1 Lifecycle of Item in Unknown Stock workflow 7](#_Toc464141367)

[2.3.2 Lifecycle of Item in Missing Data workflow 8](#_Toc464141368)

[2.3.3 Lifecycle of Item in Invalid Date workflow 9](#_Toc464141369)

[2.4 Interface for Audit Information 9](#_Toc464141370)

[3.0 Non-Functional Requirements 10](#_Toc464141371)

[3.1. Availability 10](#_Toc464141372)

[3.2. Security 10](#_Toc464141373)

[3.3. Stability 10](#_Toc464141374)

[3.4. Accessibility and concurrency 10](#_Toc464141375)

# 1.0 Overview of the Application

## 1.1 Scope of the Reference Data Workflow (RDWF) Application

The RDWF Application is able to automatically verify the content of file, and prompt the actions to Analyst and Managers to be done, if any of the verification test fails.

Basically the application will be running the set of verifying rules on data, and will prompt of three different types of workflow failure if the data is not correct.

1.1.1 Unknown Stock: Application will raise this workflow item and will add a ticket in unknown stock workflow queue, if a previously unknown stock is listed in the file.

1.1.2 Missing Data: Application will raise this workflow and will add a ticket in missing data workflow queue, if an invalid fields is provided for a certain stock

1.1.3 Invalid Date: Application will raise this workflow and will add a ticket in Invalid date workflow queue, if it finds the invalid date is present in the stock list data table.

## 1.2 Technology used in Application

Application is a web application implemented using .net framework, using Visual Studio 2015 is used as an IDE for this project.

Front-end of the application is developed using HTML, CSS, Bootstrap, Java Script, Ajax technologies. Middle tire has all the code written in C#, which is implementing the business logic of the project. Backhand consist of the MS SQL Server 2014.

## 1.3 User Interface of the Application

* Administration page enables the Administrator to create roles, ie: analyst or manager
* The user interface allows user to enter their username and password to log into the application.
* The user interface will display all workflow and workflow queues that can be accessed by the user.
* The user interface will display the number of items in the workflow queue
* The user interface will display the overdue workflow queues (items that have been in the queue for more than a specific amount of time.
* The user interface will display a list of the items in the queue in a compact way.
* The user interface will display the list in chronological order.
* The user interface will highlight over-due items in the list.
* The user interface will display all workflow items that have been selected ie: read only files, editable files, fields that have failed testing and an audit trail.

2.0 Functional Requirements

## 2.1 Scope of the Reference Data Workflow (RDWF) Application

The RDF Application is able to automatically verify the content of file, and prompt the actions to Analyst and Managers to be done, if any of the verification test fails.

Basically the application will be running the set of verifying rules on data, and will prompt of three different types of workflow failure if the data is not correct.

2.1.1 Unknown Stock: Application will raise this workflow item and will add a ticket in unknown stock workflow queue, if a previously unknown stock is listed in the file.

2.1.2 Missing Data: Application will raise this workflow and will add a ticket in missing data workflow queue, if an invalid fields is provided for a certain stock

2.1.3 Invalid Date: Application will raise this workflow and will add a ticket in Invalid date workflow queue, if it finds the invalid date is present in the stock list data table.

## 2.2 Login Interface for different users- scope and role

Application has 3 level of users, each user has different access to the application and is defined to do different job in the application.

To login in the application, user must be registered in the system and should enter the correct user credentials to login to his account.

If the login user-id and password is not correct, application will prompt the error message of invalid combination of user-id and password.

Three different types of users are Admin, Analyst and Managers. Below section will define the role and access level of each users.

### 2.2.1 Scope and Role of Administrator User

This section will define the jobs and access level of Admin.

Admin can trigger the load of the data file in the application. And is able to view all the workflow queue and workflow item within each workflow queue. He/she can create the accounts for Analyst and Mangers. And are able to view the audit information of the system.

### 2.2.2 Scope and Role of Analyst User

Analyst will be able to login to his account and will be able to see the workflow queue items as per the restriction level defined in each workflow.

### 2.2.3 Scope and Role of Manager User

Manager will be able to login to his account and will be able to see the workflow queue items as per the restriction level defined in each workflow.

## 2.3 Lifecycle of item in each Workflow queue

Application will add an item in a workflow queue depending upon the type of the workflow which is raised.

This section will be defining the lifecycle of each item within each workflow queue.

### 2.3.1 Lifecycle of Item in Unknown Stock workflow

Item in unknown stock workflow queue has 4 stages, which are defined in below section.

#### 2.3.1.1 Stage: To be Verified

As soon as any unknown stock is found, ticket/item will be raised in unknown stock workflow queue and it will be marked as TO BE VERIFIED.

All the items in this stage will be available to all the Analyst and can be viewed by Admin.

#### 2.3.1.2 Stage: In Progress

Once the ticket/item is assigned to Analyst, or ticket/item is being picked by Analyst, the status of that ticket/item will be now marked as IN PROGRESS.

Item in this stage will be visible by only those Analyst, whom the ticket is assigned. And Admin can view all the tickets/item in this stage.

#### 2.3.1.3 Stage: Awaiting Authorisation

Once the ticket/item is send for authorisation by Analyst, tickets are moved to Awaiting Authorisation stage. Analyst has to comment on the *in-progress* ticket status with his/her observation and has to submit it to move it for approval from Managers.

Items/tickets in this stage are visible to the Managers

#### 2.3.1.4 Stage: Completed

Once the Manager adds his/her authorize comment in the Awaiting Authorisation ticket and Authorize the ticket/item, then the ticket/item is moved to Completed stage.

### 2.3.2 Lifecycle of Item in Missing Data workflow

Lifecycle of item/ticket in Missing data workflow is similar to the lifecycle of item

of Unknown Stock Workflow

### 2.3.3 Lifecycle of Item in Invalid Date workflow

Items/tickets in Invalid date workflow has three stages. These three stages are defined below.

#### 2.3.3.1 Stage: Open

As soon as any invalid date is found, ticket/item will be raised in invalid date workflow queue and it will be marked as Open.

All the items in this stage will be available to all the Analyst and can be viewed by Admin.

#### 2.3.3.2 Stage: In Progress

Once the ticket/item is assigned to the Analyst, or is accepted by the Analyst, then that particular ticket/item will be marked as In Progress and will be visible to that Analyst.

All the item in this stage is visible to the Analyst, which are selected by them.

#### 2.3.3.3 Stage: Completed

Once the Analyst adds his/her analyst comment in the In Progress ticket and Complete the ticket/item, then the ticket/item is moved to Completed stage.

This stage of the ticket is accessible to Manager and Admin can view all the stages

## 2.4 Interface for Audit Information

Application is able to keep track of the system audit, and admin is able to see the auditing report.

Audit report will be able to give details like name of the file which was processed, data and time of file processed, total rows, and total rows which were successful, and number of rows which raised each type of workflow item.

# 3.0 Non-Functional Requirements

## 3.1. Availability

Thesystem must be available on a local network via a web page and should be able to be accessed by specific users. The users will be Administrator, Manager and Analyst. Only tasks that is assigned to each user will be available to them.

## 3.2. Security

The system must be secure and allow only registered authorized users to access the system interface that they have been assigned to by the Administrator.

## 3.3. Stability

The system must be stable and experience minimal to no downtime and provide continuous service to users. This will be done a clear and precise manner.

## 3.4. Accessibility and concurrency

The system should be accessible to multiple concurrent users, and the actions of one user should not affect what a different user can do. Some users should have more accessibility than others.

# 4.0 Use Case Diagram