User Requirements Specification (URS) for Administrative System for Zoo Bazaar

Date	:	04/04/2024
Version	:	1.0
State	:	Finished
Author	:	Nuno Dias

Version history

Version	Date	Author(s)	Changes	State
1.0	04-04-2024	Nuno Dias	First Draft	Finished

Glossary

Introduction

The User Requirements Specification (URS) outlines the functional and non-functional requirements for the development of a RSS Feed aggregator and viewer. The system will allow individuals to centralised their news so they don't have to go to 30 websites to keep up with all online world.

Functional Requirements

FR.1 Feeds

FR. 1.1.   The system will allow administrators to create, view, update, and delete Feeds from the database (CRUD).

FR. 1.2.   By selecting a Feed a User will be able to view its comments, ratings and information that might help him decide if he is interested or not. These include, but are not limited to, categories, popularity and similarity to content the user enjoys (determined by an algorithm).

FR. 1.3.   There will be a record of all past feed entries.

FR.2 Users

FR. 1.1.   The system will allow users to register, view their profile, update information, and delete their account (CRUD).

FR. 1.2.   Users will be able to view all or a subset of Feeds based on filters such as, but not limited to, categories, algorithmic recommendations, ratings and popularity.

FR. 1.3.   Users will be able to create List of Feeds they want to follow and add Feeds to them at their discretion.

FR.3 Admins

FR. 3.1.   Admins will be able to create and delete other admins accounts (CRUD).

FR. 3.2.   Admins will be able to view and manage all Feeds and their details.

FR. 3.3.   Admins will be able to view all Users and manage them.

FR. 3.4.   Admins will be able to hide certain feeds.

FR.4 Reporting and Analytics

FR. 6.1.   The system will generate analytical reports for admins.

FR. 6.2.   Reports will include feed popularity, overall user activity, banned users and more.

FR. 6.3.   The system will support export capabilities for sharing reports in various formats (e.g. PDF, JSON).

Non-Functional Requirements

NFR.4 Reporting and Analytics

NFR.1. The system will have an intuitive and user-friendly interface to facilitate ease of use and navigation for administrators and users.
NFR.2. Features such as search filters, sorting options, and contextual help will be provided to make the experience more intuitive.

NFR.2 Scalability

NFR.1. The system architecture will be designed to accommodate future growth and scalability requirements, including increased data volume and user concurrency.
NFR.2. Modular and extensible code will be utilised to support future updates and swapping of modules with minimal effect on the rest of the code.

NFR.3 Reliability

NFR.1. Through error handling
NFR.2. Multiple data validation check at multiple points through the program

NFR.4 Security

NFR.1. The system will implement role-based access control to control sensitive information and functionalities based on user roles. This will help the App restrict unauthorised access and ensure that users will only have access to the corresponding resources.
NFR.2. The system will implement user authentication mechanisms (e.g., username/password, multi-factor authentication). This will help to verify the identity of users and add another layer of security to the system.

NFR.5 Performance

NFR.1. The system shall be capable of handling concurrent user interactions and database transactions without significant performance loss.
NFR.2. Response times for common operations (e.g., record retrieval, schedule updates) should be within acceptable limits.

Use Cases

UC1. Registering as a User

Actor: Visitor
Requirement:
Pre-conditions: Website open

Main Success Scenario:

1. The Actor clicks the Register button on the sidebar.
2. The System loads the Form page.
3. The Actor fills in the required information and clicks the Register button.
4. The System saves the User to the Database.

Extensions:
    3.1. The information inputted is of the wrong type, the name includes numbers and the phone number includes letters
    3.2. The System displays a message box alert telling the user what information was of incorrect type.
    3.3. The Actor closes the message box and corrects the information.
    3.4. Proceed to step 6.

UC2. User Login

Actor: User
Requirement:
Pre-conditions: Website open

Main Success Scenario:

1. The Actor clicks the Login button on the sidebar.
2. The System displays the Form page.
3. The Actor uses his password and username to log in.
4. The system displays this Users home page and its feeds.

Extensions:
    3.1. The Username and Password don't match the records in the Database.
    3.2. The System tells the Actor that the password and username don't match any known User.
    3.3. The Actor inputs the right username and password.
    3.4. Proceed to step 2.

    3.1. The Database is inaccessible at the moment.

3.2. The System tells the Actor that the database can't be reached and his credentials can't be verified.

3.3. End of use case.

UC3. Managing Feeds

Actor: Administrator
Requirement:
Pre-conditions: Logged in as administrator

Main Success Scenario:

1. The Administrator clicks the Feeds button on the sidebar
2. The system shows the Feed management page
3. The Admin opens a feed
4. The system displays the feeds information
5. The Admin changes some information and clicks save
6. The system saves the changes to the database
7. The Admin deletes a feed
8. The system deletes the feed from the database

Extensions:

5.1. The system fails to update the records
5.2. The actor is informed to try again later

UC4. Managing Employees

Actor: Administrator
Requirement:
Pre-conditions: Logged in as administrator

Main Success Scenario:

1. The Administrator clicks the Users button on the sidebar
2. The system shows the User management page
3. The Admin filters the users and then selects one
4. The system displays the users information
5. The Admin changes some information and clicks save
6. The system saves the changes to the database
7. The Admin deletes a user
8. The system deletes the user from the database

Extensions:

5.1. The system fails to update the records

5.2. The actor is informed to try again later

UC5. Creating a Feed

Actor: Administrator
Requirement:
Pre-conditions: Logged in as administrator

Main Success Scenario:

1. The Administrator clicks the Feeds button on the sidebar
2. The system shows the Feed management page
3. The Admin clicks the create button
4. The system displays an empty feed form
5. The Admin adds the information necessary and clicks save
6. The system saves the changes to the database and shows the feed in the management page

Extensions:
5.1. The administrator forgets to input a field
5.2. The system fails to save the new feed and warns the Administrator of why
5.3. The administrator inputs the incorrect/missing information
5.4. Proceed to step 6

UC6. Saving Feeds

Actor: User
Requirement:
Pre-conditions: Logged in as an user

Main Success Scenario:

1. The User clicks the Feeds button on the sidebar
2. The system shows the view Feed page
3. The User filters feeds based on a number of parameters including "recommended", categories tags, recently updated and more.
4. The system displays the feeds that fit these parameters
5. The User chooses a feed
6. The system displays the feeds information
7. The User adds the feed to one of theirs existing list
8. The system saves the feed to the corresponding list

Extensions:

7.1. There are no pre-existing lists

7.2. The user clicks the add new list button

7.3. The system asks the user to give a name to the new list

7.4. The user fills in the name field

7.5. The system saves the new list and adds the feed to it

UC7. User Account Management

Actor: User
Requirement:
Pre-conditions: User Logged In

Main Success Scenario:

1. The Actor clicks the Profile button on the sidebar.
2. The System displays the Users page.
3. The Actor changes his personal information and clicks save
4. Th system saves the updated information
5. The Actor clicks on the button on the bottom of the page that says Delete Account.
6. A confirmation message shows up.
7. The Actor confirms
8. Their account is deleted

Extensions:

UC8. Leaving a Comment

Actor: User
Requirement:
Pre-conditions: Logged in as an User

Main Success Scenario:

1. The User clicks the Feeds button on the sidebar
2. The system shows the Feed View page
3. The User selects a Feed
4. The system displays a Feeds details
5. The User clicks the add comment button
6. The system shows a Form for the User to fill out
7. The User fills the form with his comments and saves
8. The system saves the comment

Extensions:

UC9. Leaving a Review

Actor: User
Requirement:
Pre-conditions: Logged in as an User

Main Success Scenario:

1. The User clicks the Feeds button on the sidebar
2. The system shows the Feed View page
3. The User selects a Feed
4. The system displays a Feeds details
5. The User clicks the add review button
6. The system shows a Form for the User to fill out
7. The User fills the form with his reviews details and saves
8. The system saves the review

Extensions: