University at Buffalo, State University of New York

CSE-4/542
Software Engineering Concepts

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WNYLC Fair Hearing Online Resource Center

Phase 3- Software Requirement Specification

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Team 18

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This document defines the SRS of Western New York Law Center's fair hearings database.

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INTRODUCTION

1.1 Project Description

The WNY Law Company is a group of advocates that represent people who apply for Public Assistance in New York State. The advocates are non-profit organizations that represent clients without charge. The clients, low income or no income and cannot afford to pay for representation at hearings.

We need to devise techniques to identify useful hearings and note them, and a way to search the large database as well. It would also be preferred for the advocates to comment on hearings that are particularly helpful.

1.2 Project Scope

- Restricted sections for different areas of the law
- Levels of Users- 1 to 4 (explained in detail below)
- Minimalistic search page like Google
- Search results go with 10/page and customizable
- Advanced search options
- Techniques to perform clustering of data to form groups of related hearings and categorize them as positive/negative.
- Data redundancy and data security is an issue because if its vast size.

1.3 Access Levels in Detail

- **Level 1**: Everyone

They have view access to everything, except for the comments. Users at Level 1 cannot view or post comments.

- **Level 2**: Needs approval from administrator(s)

When someone asks for level 2 access, one or more administrators would get an email indicating that a request for level 2 access was made. The administrators would approve or deny this access from an administrative page, and an appropriate email would be generated to the person who has requested level 2 access. *[A portion of this feature already exists for some of the other areas where access is*

approved or denied-- Ideally, there should also be an option to customize an email to the person who has requested level 2 accesses.]

Once given access, a level 2 user can comment and has some limited editing privileges – like posting a fair hearing number to a digest and linking to it.

- **Level 3**: Administrators

Administrators can include advocates, who give access to Level 2 members when a request is submitted. If the level 3 advocate deems it okay for commenting access, the user is given that permission. Administrators have further editing rights- they can edit the comments that level 2 users have posted. They can also remove comments, and basically act like moderators.

- **Level 4**: Super Administrator

Super Administrators appoint moderators (level 3), send correspondence and advice to Level 3 administrators. They have the rights to remove users, and user access management i.e. Demote users in case of bad activity.
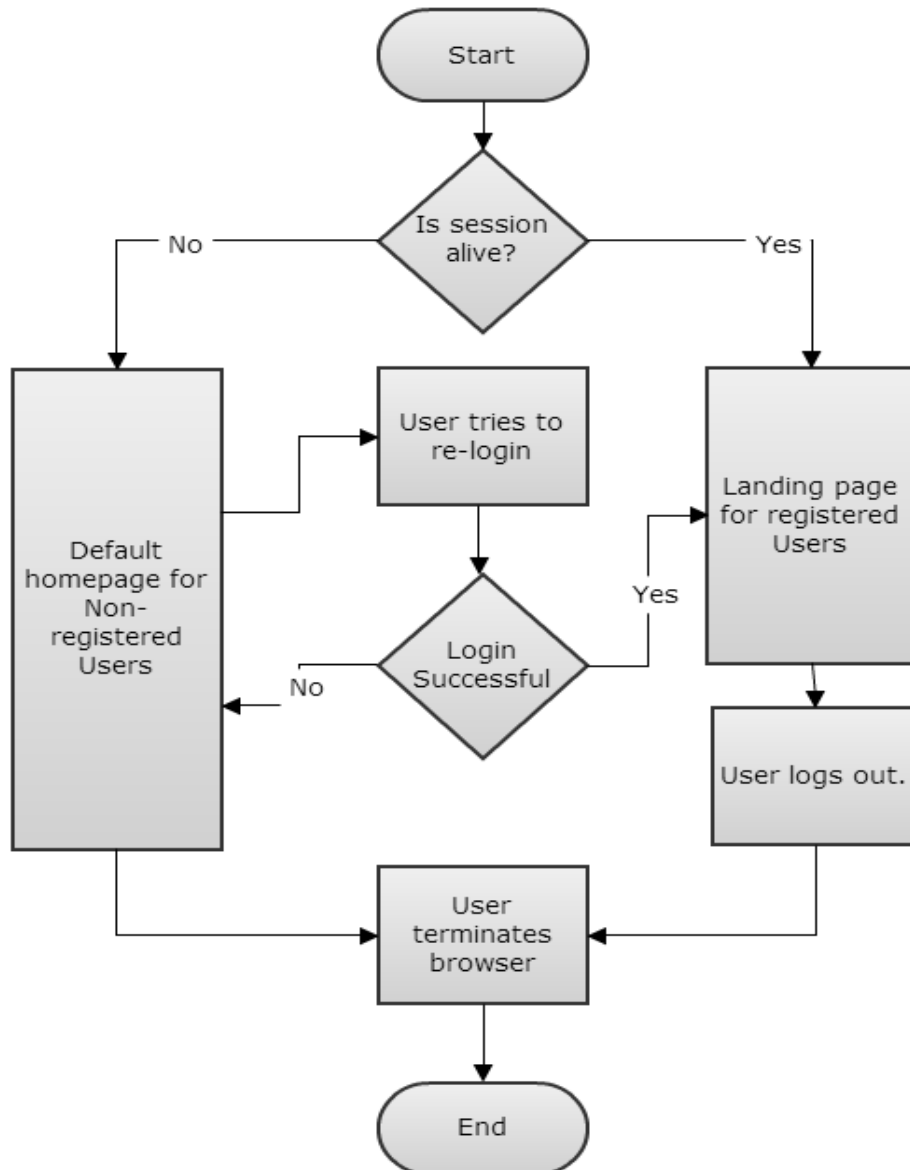
1.4 Out of Scope

- Upper Limit on data storage - Although the OTDA deletes data older than 3 years, we have the storage required to store the data that the OTDA will get rid of. But it might be difficult to store data that is more than 10 years old.

MODULES

We have identified around seven modules for WNYLC– OTDA site.

2.1 User Login

User Login

The User-login module ensures that only registered user log in to the system and access the required information. The home page of the site has the user-login where, users can enter their login credentials, which is a username that they had chosen on the time of registration or their email id and the password. If they had provided the correct login credentials, they will be taken to the home page of registered users where they can

- Manage their personal settings,
- Search for fair hearing cases
- Can access the forum where they can see the discussion about several fair hearing cases based upon their access level.

 If a user has not registered, they can register on the home page by using the new user registration link where they need to fill out basic information about them. If they have entered a valid email address, they will receive a confirmation link to that mail address. Once they click the link, it will confirm their email address and completes the registration process. This email is to make sure that the users give a valid mail address.

2.2 User Attributes

The User attribute module is used for individual users to configure their personal settings on the site. They include from

- User Profile
- Notification Center
- Personal Message

2.2.1 User Profile
   The user profile is used to manage the details about the user. Any registered user can change their information that they had provided during the time of registration. These information include,
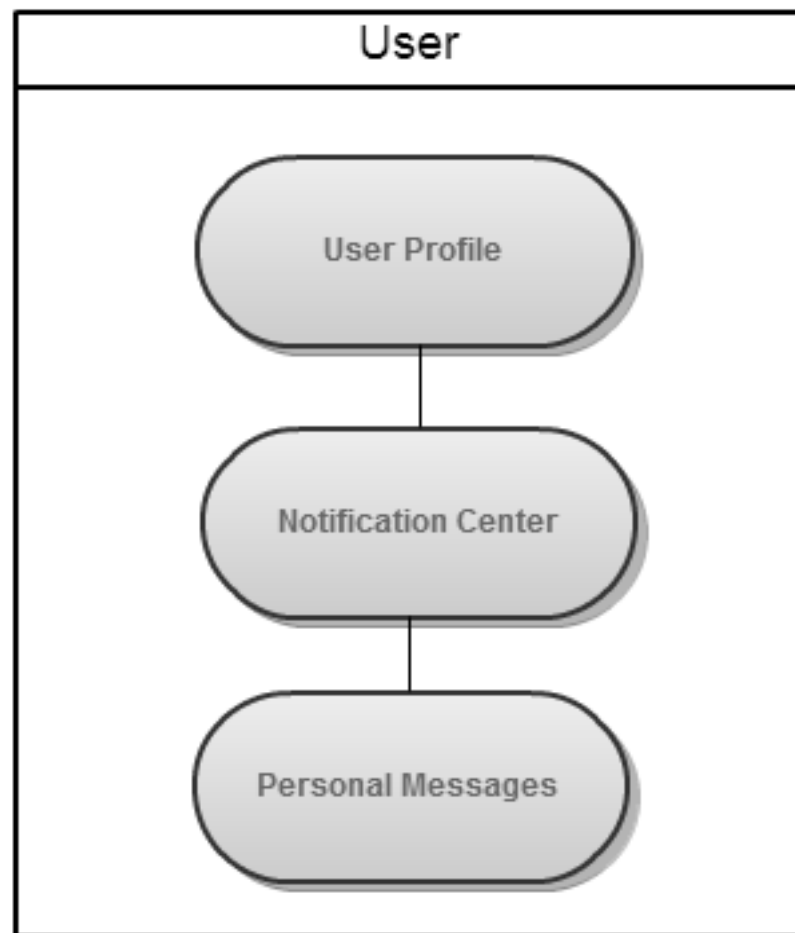
1. Password
2. Email address
3. Home address
4. Contact information
5. Profile Picture

2.2.2 Notification Center

This is the place where registered users can control the number of notifications they wanted to receive from the system. This mainly includes the email notification that will be sent if the users are subscribed to certain fair hearing cases. So they can control how often they want to be notified regarding the new fair hearing cases. This also includes the notification they want to receive if any user makes a comment on a thread on a fair hearing case for which they have subscribed.

2.2.3 Personal Message

This is feature is used by the registered users to send private messages to other registered users of the system. They should know the recipients username to send a message.

User

User Profile

Notification Center

Personal Messages

User Attributes

2.3 WNYLC "Advanced Search" Page

This is the advanced search page of the WNYLC site where registered users can find most of the information they wanted. The main page is divided into 5 segments,

1. Browse monthly archives
2. Recently Uploaded cases
3. Category listings
4. Show cases with Positive or Negative results
5. Quick Email subscription form

2.3.1 Browse Monthly Archives

The Browse monthly archives helps users to search for the fair hearing cases that are uploaded on particular month in a year. They can also search for particular fair hearing cases that are uploaded on particular month in a year in the keyword text box.

2.3.2 Recently Uploaded Cases

This section displays fair hearing cases that are uploaded very recently. This will help users to find the recent fair hearing cases and their decisions.

2.3.3 Category Listings

This gives the list of categories on which the fair hearing cases can be searched. The sample category will be Food Stamp, Medical etc. So the users who wanted to search for specific category of fair hearing cases, they can select that category and search. They can also search on more than one category.

2.3.4 Show cases with Positive or Negative results

This allows users the search fair hearing cases based on their outcome. They can choose either the case to be positive or negative outcome.

2.3.5 Quick Email subscription form

Users can subscribe to particular fair hearing case category so that they will be notified when a new fair hearing case in that category has been added to the system. They can control the notification using the notification center.

2.4 Search Query sequence diagram
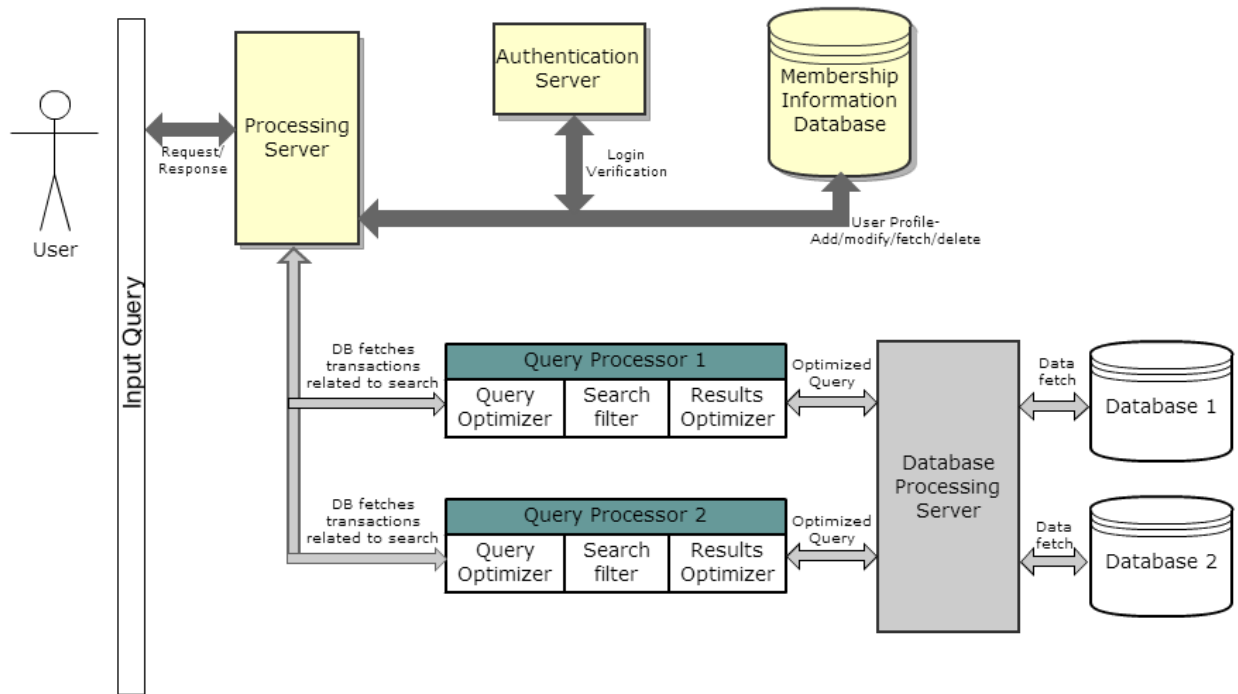
Search query sequence flow

This module explains how the search works. The processing server is used to direct the query across different query processor to maintain the load balancing on the database and avoiding unnecessary server unavailability. Once the queries are directed to appropriate query processor, Query optimizer whose main job is to fine-tune the user queries will optimize the query. The Search Filter is used to restrict the search results based on the users request, this can be the number results they wanted, sorted based on the date etc. And finally the Result Optimizer will provide the desired results to the user.

2.5 Search Results Page

This page is same as the WNYLC home page instead of the search criteria; they will see their search results. The results are sorted based on their input. They are mainly sorted based on the date, relevance to result. And user also restricts the number of results per page.

2.6 Comments Moderation

Comments Moderation
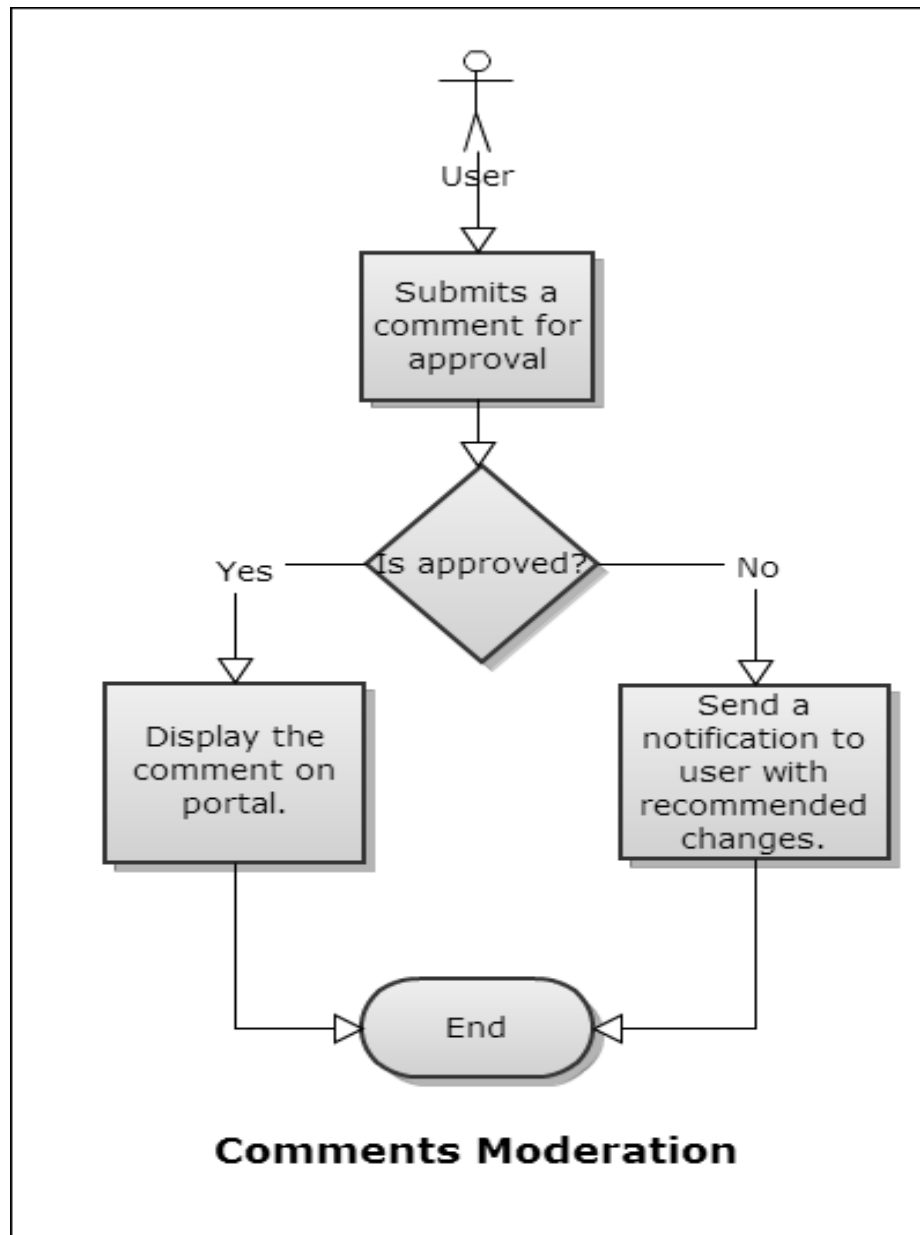
This module is mainly used to ensure that the user's comments on the forum are monitored. This prevents from users posting unnecessary, provoking comments on the public forum. Whenever a user comments on a post, it will be notified to the administrator who will make sure that the comments are adhering to the forum rules and regulations.

USER CONFIGURABILITY

The OTDA will continue to use the current site here

The Objective is to "provide the advocate with a user-friendly way of identifying important decisions." as extracted from the Changes section of the Current Online Resource Center document. The following is a proposal to achieve this objective:

3.1 User Interfaces/Configurability :

Configurability would assist the User in setting up an efficient but effective plans to address the Appeal Process.

Using the FH# the following enhancement will key in on the relevant perspective for the advocate. This implementation should be implemented in the sequence of menus following the splash page; Online Fair Hearing Submission Form. The user will have the option to sort Fair Hearings by the pull down focus and build the search criteria to the Digest Decisions or Discussion /Highlighted Decisions.

- Users will determine the best procedure for assisting the Advocate

    o A pull down menu to allow client to select the **focus**.
        - SNAP - Food Stamps
        - Medical - Assistance
        - HEAP - Assistance
        - Cash and Rent
        - All of the above

- A second pull down menu asks the client the reason for denial.
    o Income too high
    o Failure to recertify
    o Other reasons...

- The results of this query structure will assist Advocates.
- Users may allow for clients to add commentary for review that may help to determine if   appeal is reasonable. The User may ask clients about the information provided in the application process.
- The User Interface serves as a helpful portal but needs safeguards for security and client confidentiality.
- The User may provide a counseling request option designed to assist clients to simplify the appeal process. The counseling will provide an oral Q&A that

allows Users to hear a very simple explanation of the law. The User may explain how to file for the Fair Hearing and time constraints associated with it.

The original design of the site map and menus is the accepted view of the Advocates, currently. This should not be altered. The functionality proposed above is designed to achieve concise and meaning information for the Advocate's requirements.

- <u>Digest of Decisions;</u> The proposed outline provided in the original should not be changed in design. The content may include on relevant data based upon   focus determined in pull down menu.

- <u>Discussion or Highlighted Decisions;</u> The design should insure that the links provided are for Fair Hearings from the pull down menu. This may be difficult but the design of the configurable component must be as close as possible.

- <u>Individual Digest:</u> It is very important that the design of the configurable component is accurate. This may require a sort of the Fair Hearings numbers in the database.

- ***The requirement for this design will require at least an ordering of the Database by <u>focus</u> and Fair Hearing number.***

CHANGE REQUEST FORM

In order to accommodate the client requirement changes, we have developed an online form. This is an interactive form where clients can make new change requests and the priority of the requests will be calculated automatically based on certain pre-defined conditions. The change request form is available in the following link,

http://www.acsu.buffalo.edu/~rtirupak/otda/form.html

Or under Phase 3 of,

http://www.acsu.buffalo.edu/~rtirupak/otda

Change Request Form
Please fill out the details in this form to request a change.

Client Details

Name

First   Last

Company:

Address

Street Address

Address Line 2

City   State / Province / Region

Postal / Zip Code   Country

Phone

(###)   ###   ####

Email:

Preferred mode of contact:
- ○ Email
- ○ Phone
- ○ Mail

Priority Calculator

Nature of request
- ○ Enhancement
- ○ Bug-fix

Affected Users (Scale)

Module
- ○ Search
- ○ Legal Forum
- ○ Admin Portal
- ○ New Module (In case of enhancement)

System-generated priority (based on above parameters):

If a new priority needs to be assigned, request the priority here:

Change Details

Existing System

Proposed System

Attachments (Screenshots, Flowchart etc...)
Browse…

Submit

CROSS REFERENCE LISTINGS

#	Functional Requirement	Section in Software Requirement Specification
1	Levels of users	Page 5 - Functional Requirement 1.3 Access Level – SRS Document
2	Email validation	Page 5 – Functional Requirement 2.1 User Login – SRS Document
3	Different search views	Page 5 – Functional Requirement 2.5 Search Results Page – SRS Document
4	Link to decision page	Page 5 – Functional Requirement 2.5 Search Results Page – SRS Document
5	Suggestions based on search history	Page 5 – Functional Requirement 2.3 WNYLC Main Page – SRS Document
6	Subscription to a case or search category	Page 5 - Functional Requirement 2.3 WNYLC Main Page – SRS Document
7	User login	Page 7 – Functional Requirement 2.1 User Login – SRS Document
8	User Profile	2.2.1 User Profile – SRS Document
9	Notification Center	2.2.2 Notification Center – SRS Document
10	User Message	2.2.3 Personal Message – SRS Document
11	Positive, Negative Results	2.3.4 Show Cases with Positive or Negative – SRS Document
12	Comment Moderation	2.6 Comment Moderation – SRS Document

INTEGRATION THREAD

Below is the Integration module of our system. This integration thread is subject to change in future based client's new requirement.