

SI 572 HCN team

Final Project Report

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Project name

HCN

Team member

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Project Description

At the moment, Housing Coordinators Network (HCN) is experiencing a disorganization of information regarding available housing. Many individuals in the organization are slow to respond to emails about housing, and users are not always informed about the latest housing available. Not only are many individuals slow to respond, there is an overdependence upon one individual to get most of the work for the organization done. This in turn does not provide users with the latest information about housing and it gives users more difficulty to touch base with the landlords offering unused housing. Our project strives to make a database that provides easy access, point and click/drop down menus, and low on-going maintenance which will in turn reduce the overdependence upon one individual and inform the users of the latest available housing at a more efficient rate than what HCN currently experiences.



Figure 1: Home page of our website

User stories/functionalities

Roles

Unregistered users

Users who search through HCN's housing databases but have not registered with the network

Registered users

Users who have created accounts on HCN's housing databases, they are able to edit their profile in the system.

Registered users could be divided into 2 groups: **landlords** and **housing coordinators**.

Landlords can view housing information added by them, can add new housing information, and can edit and delete housing information which they posted.

Housing coordinators can view all the housing information, can add new housing, and can edit and delete postings of available housing.

Administrators

Administrators have the most privileges of all users. Besides all the functions housing coordinators have, they also can approve registration of new users and delete existing users should they be problematic for the website.

User Features

Unregistered users

1. **Register** - Unregistered users need register to the HCN database to get access to housing information.
Note: User registration must be approved by HCN's administrators before they can access to any housing information.

Users input their basic information such as their name, company, password, and other such related information. To ensure that users input all the information, an error may appear if some of the fields are left intentionally or unintentionally blank and other fields such as phone numbers and email addresses need to be filled out in the correct format. That is, phone numbers have to be 10 digit numbers and email addresses require a '@' as well as a valid domain name.

HCN-Interactive Housing Database

localhost/si572/project/register.php

Housing Coordinator Networks
Washtenaw County
Michigan, USA
Phone: 123-456-7890
sales@thetiecompany.com

Home | About Us | Log In

HCN

Interactve Housing Information Database

Welcome to HCN!

Hi! Welcome New Members! Please provide the information below.

New User Registration

Account Information: (* are required)

* Username:

* Password:

* Password Confirmation:

General Information:

* Email:

* First Name:

* Last Name:

Figure 2: A sample form of what unregistered users need to fill out

RedTie

localhost / localhost / hcn | phpMyA...

Housing Coordinator Networks
Washtenaw County
Michigan, USA
Phone: 123-456-7890
sales@thetiecompany.com

Home | About Us | Log In

HCN

Interactve Housing Information Database

Welcome to HCN!

Thank you for your registration.

Our staff will look into your application ASAP.
You will get an email notification once administrator approve your application.
Thank you again for your registration.
We look forward to service you in the future.

| Housing Coordinator Networks Website Copyright © SI572 Winter 2012 team HCN | Initial Template Design by Hosting Colombia

Figure 3: when the user has finished filling out the required forms and submitted

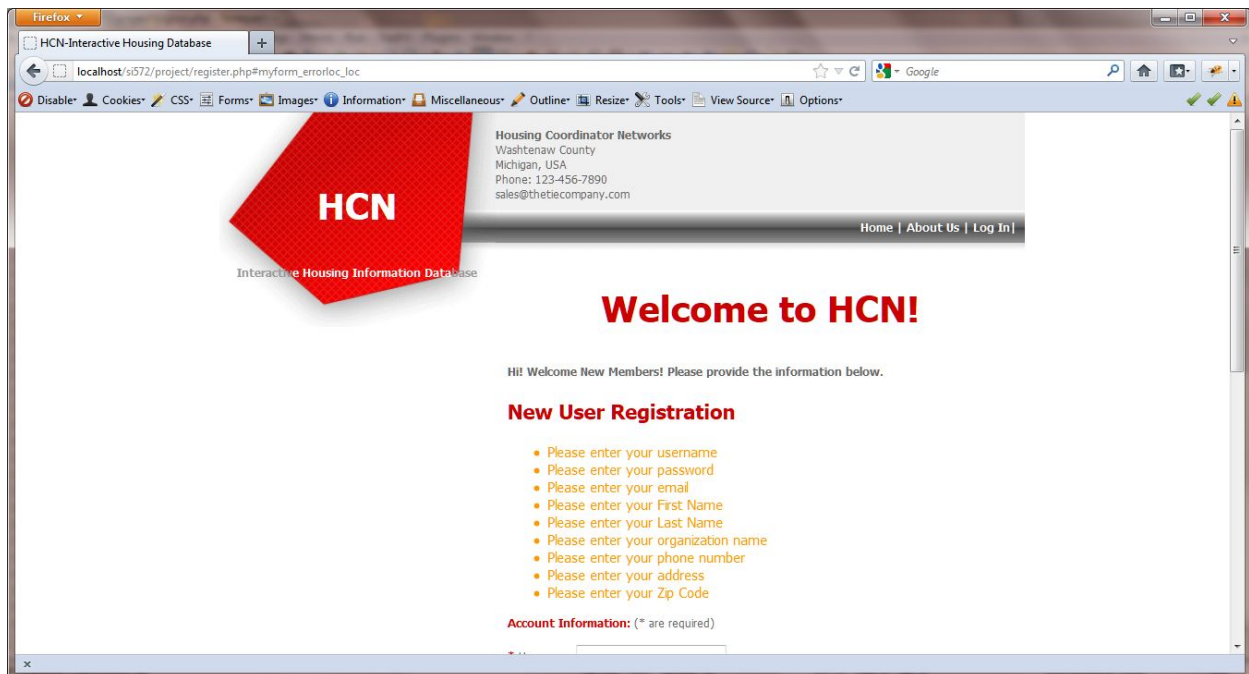


Figure 4: If the unregistered user fails to fill out all the required forms

The screenshot shows the same HCN registration page, but with specific validation errors highlighted in orange text:

- The confirmed password is not the same as password
- This is not a valid email address
- Phone can contain numeric chars only, please remove space or other chars
- Zip Code can contain numeric chars only

The "Account Information" section contains the following fields:

- * Username: asdf
- * Password: ***
- * Password Confirmation: ****

The "General Information" section contains the following fields:

- * Email: rges
- * First Name: sda
- * Last Name: aSD
- * Organization Name: SFDG (If you are a member of HCN, please enter your organization in HCN. If you are a landlord, please fill in your company name or "Private landlord")

Figure 5: Information format validation

Registered Users

2. **Log in/log out** - users input their username and password or can choose to close their session

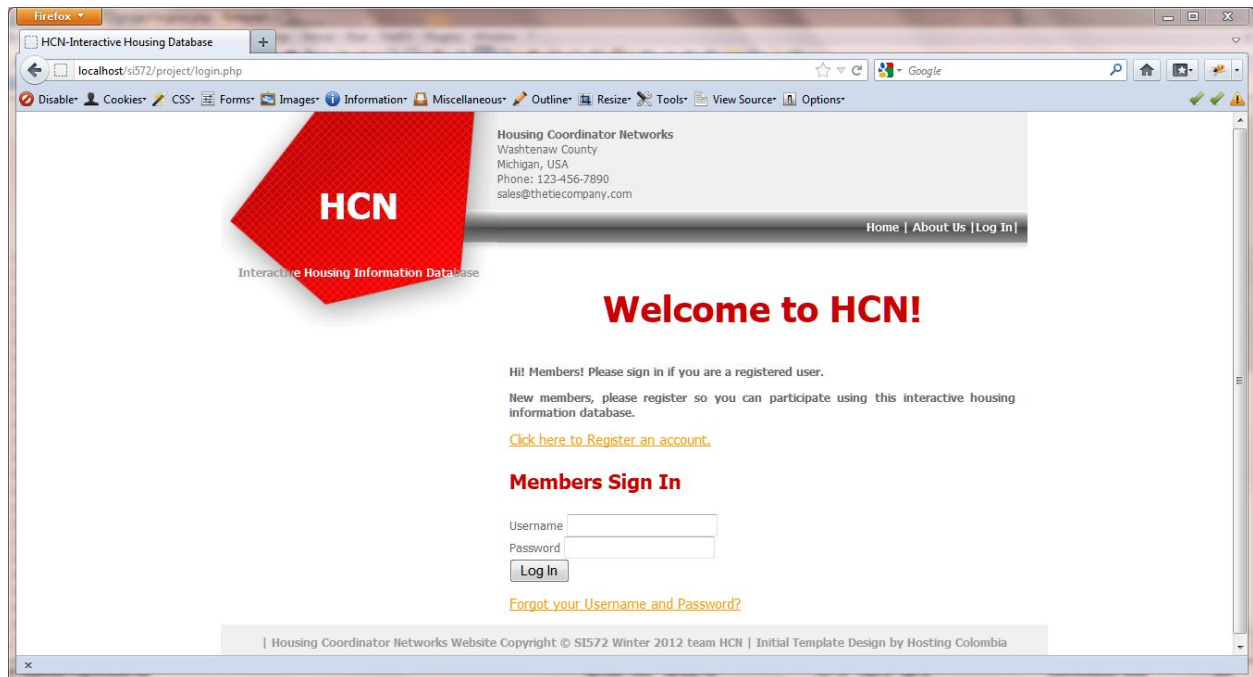


Figure 2 : login page

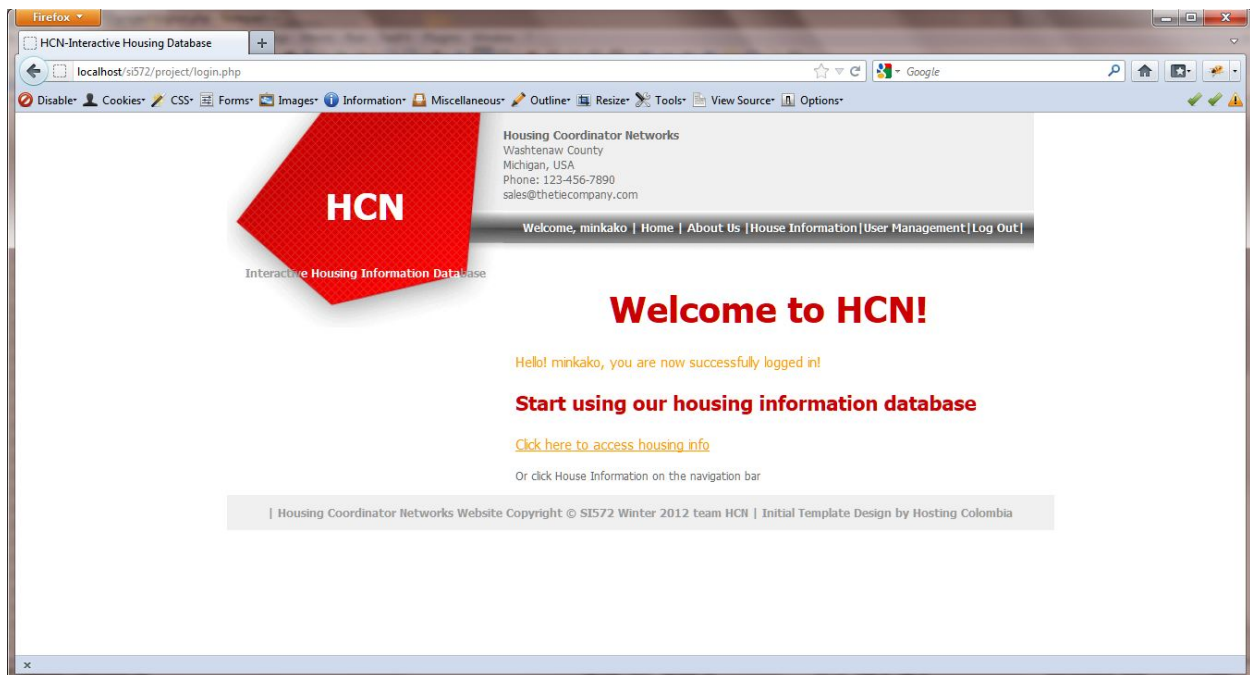


Figure 3: A sample page when the user has just logged in

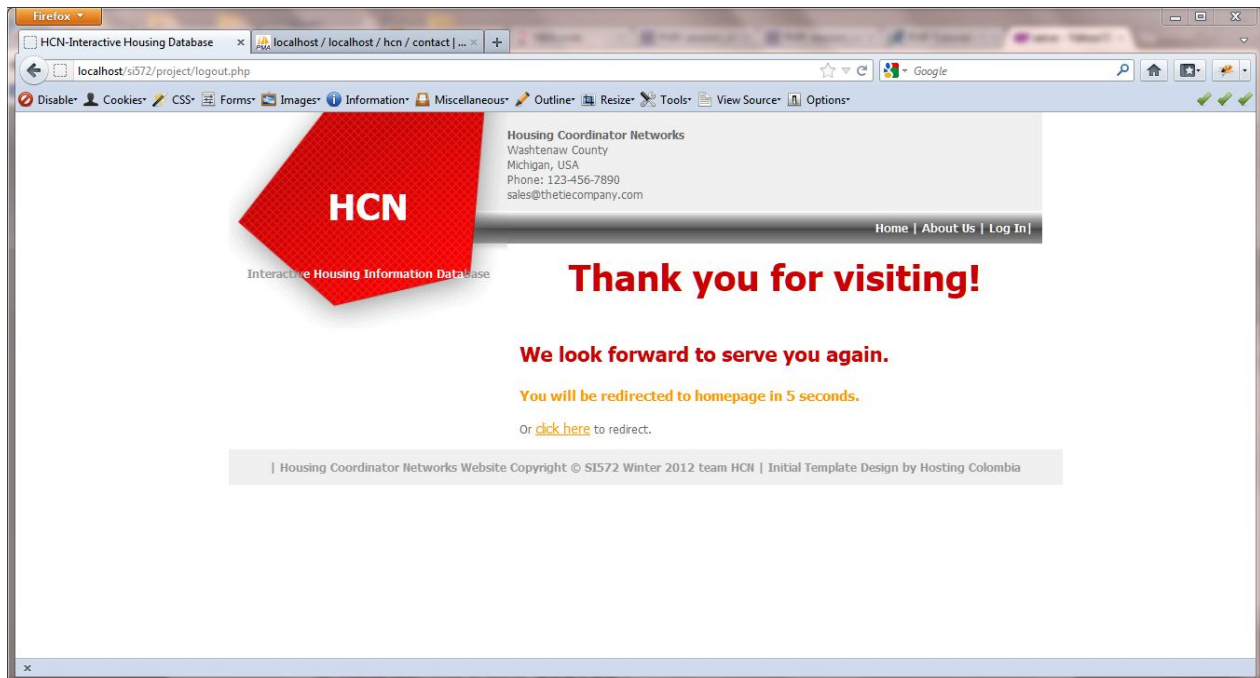


Figure 4: A sample page of when the registered user logs out

3. **Edit user profile** - A user sometimes might want to change their basic information such as phone numbers and can choose to do so by editing his or her profile.

Note: Since username and email address are primary keys in our database, the users cannot edit these fields. Instead, only an administrator can change these fields.



Figure 5: A sample page of user profile editing

4. **Forget password**- Sometimes registered users forget their passwords, and so our website offers an option to send the password to the user's email address. If a user tries to log in three times and is unsuccessful, the user is led to a page that asks if he or she forget his or her password and if he or she did, he or she can ask for an email containing the password. To prevent spammers or computer programs from trying to access such information, the user is required to solve a basic math equation to ensure that it is a human accessing the information. In this page, there are text boxes could be used to input username email address, organization name. We designed this system to validate either the username and organization name or email and organization name to make sure the user is the owner of a certain account. Once that is confirmed, the system will send the user's password to user's email account.

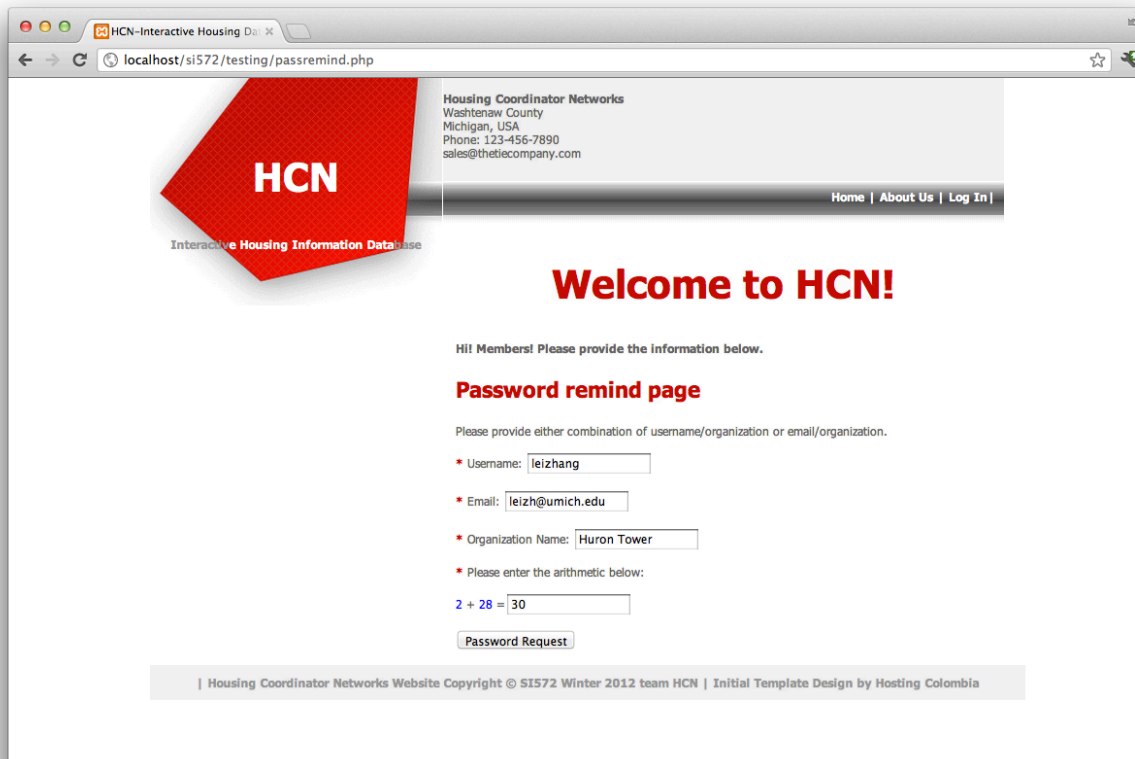


Figure 6: The password remind page

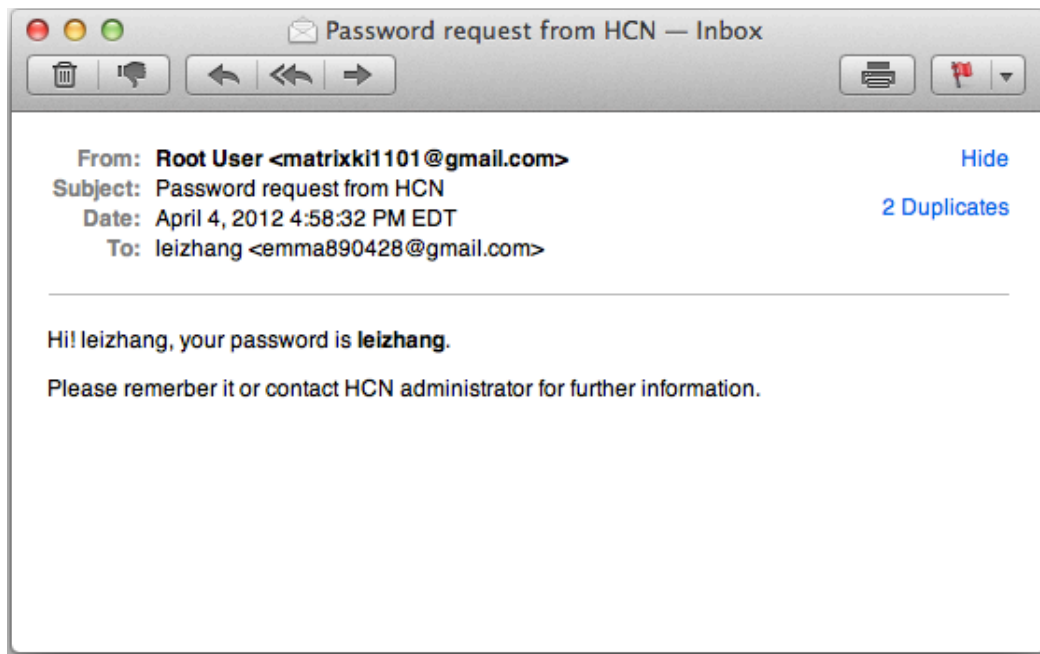


Figure 7: A sample email automatically sent to user for password reminding

5. Add new housing information- Since this a website dedicated to connecting landlords and people looking for housing, registered users are encouraged to add new available housing when they have the opportunity to do so. Registered users can add new housing by filling out the online form pertaining to adding housing and this new form will ask basic information such as monthly rent, whether utilities, pets, and whether it is disability-friendly. In this page, we require users to type in the landlord contact information because when housing coordinators are interested in certain housing, they can talk to landlord in person for further information. Meanwhile, housing coordinators are able to rate landlords by his or her working experience with landlords.

The screenshot shows a web browser window with the URL `localhost/si572/testing/addhousing.php`. The page features a red header with the 'HCN' logo and contact information for Housing Coordinator Networks in Washtenaw County, Michigan. A navigation bar includes links like 'Home', 'About Us', 'House Information', 'User Management', and 'Log Out'. The main content area is titled 'Add New Housing' and contains a form with the following fields: 'Apartment/Housing Name' (filled with 'Huron Tower'), 'Company' (filled with 'Huron Tower'), 'Rent' (1095.00), '#bedrooms' (2), '#bathrooms' (1), 'Utilities' (Included), 'Pet-friendly' (No), 'Voucher' (Yes), 'Wheelchair-Access' (Yes), and 'Available' (Yes). A text area for 'House description' is at the bottom.

Figure 8: Housing information add page

6. Update housing information- Sometimes, landlords need to make changes to the housing they posted on the database, and they can do so by filling out the edit housing web page's forms. On this page, they can change basic information whether it is the monthly rent or its accessibility to people with disabilities. Sometimes, when a housing is rent out, users could change the availability as “no” so that it won’t waste housing coordinators’ time to do further contact.

HCN-Interactive Housing Database

localhost/si572/testing/edithousing.php

HCN
Interactive Housing Information Database

Housing Coordinator Networks
Washtenaw County
Michigan, USA
Phone: 123-456-7890
sales@theteccompany.com

Welcome, si572 | [Home](#) | [About Us](#) | [House Information](#) | [User Management](#) | [Log Out](#)

| [Add Housing](#) | [View Current Housing](#) | [View Housing Archive](#) |

Edit housing

General Information:

Apartment/Housing Name:

Company:

Rent:

#bedrooms: (type 0 if it's a studio)

#bathrooms: (type 0 if it's a studio)

Utilities:

Pet-friendly:

Voucher:

Wheelchair-Access:

Available:

House description:

Housing Address Information:

Address:

City:

Figure 9: Housing information edit page

7. **Filter Housing-** To help users find the right housing, our website will have the ability to search and sort for available housing by different criteria such as rent or location or the time which it was added. This function would be achieved by adding search box in the left side of housing index page. By setting limitations, users could narrow down their choices.

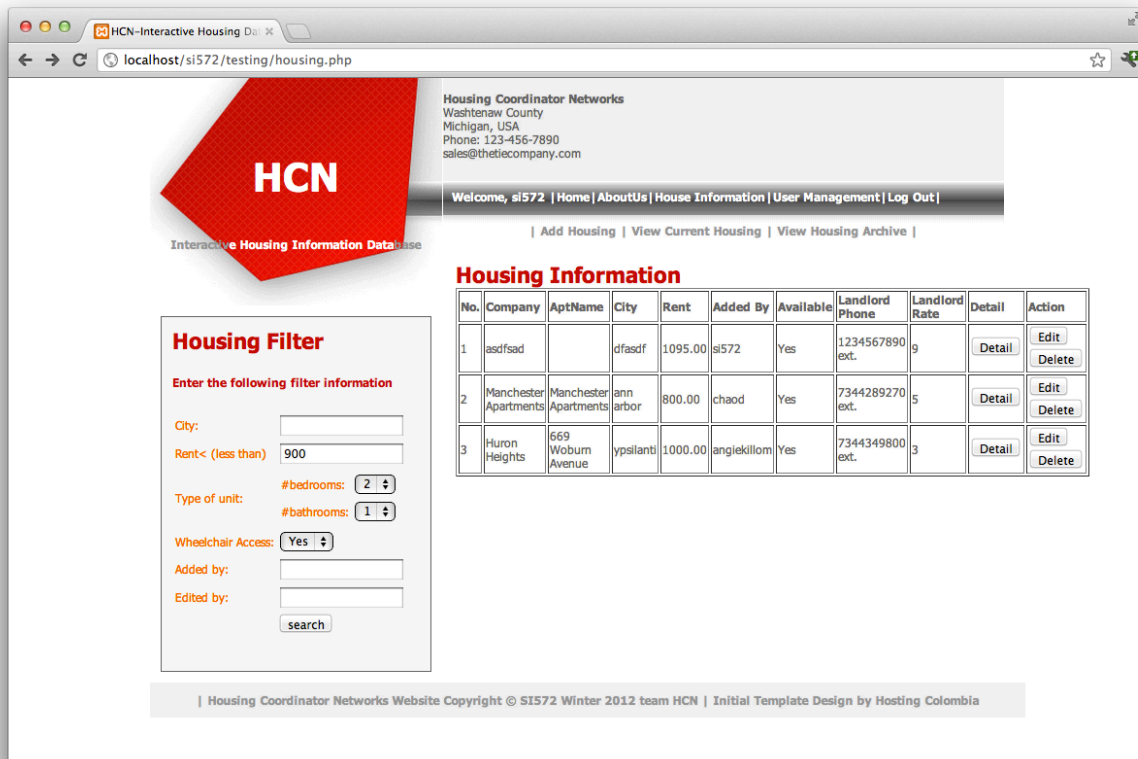


Figure 10: Using filter in the housing information index page

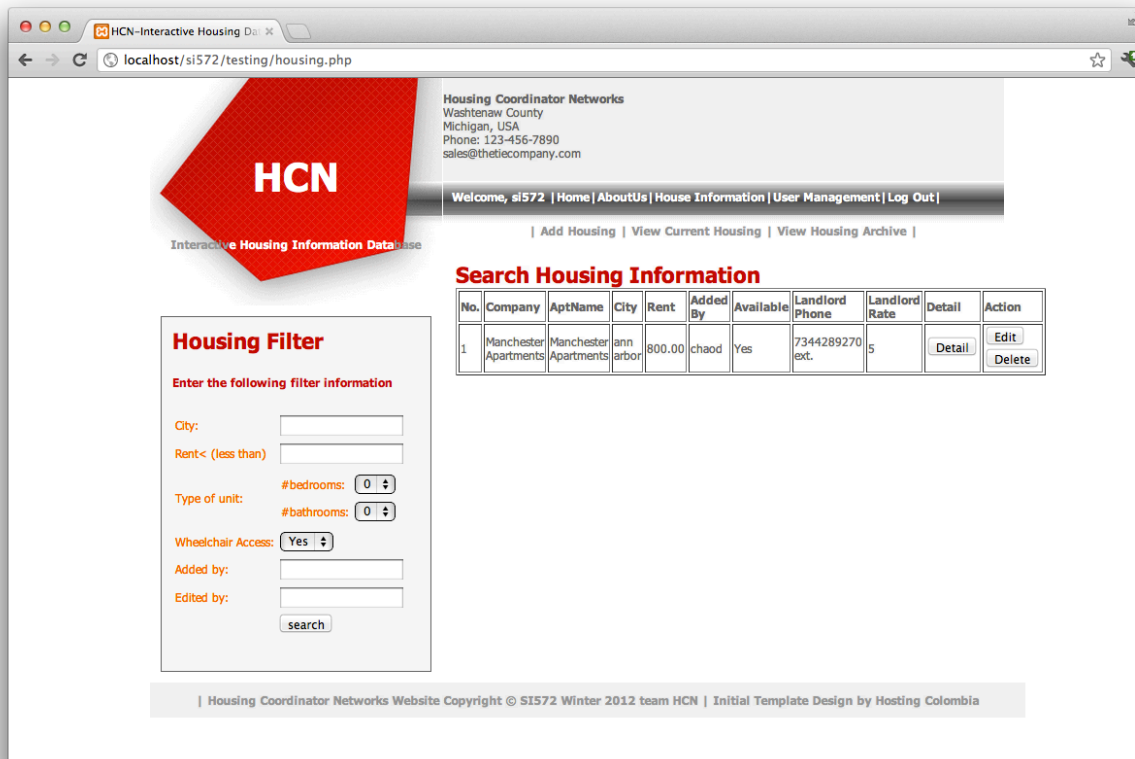


Figure 11: Housing filter search result

- Delete Housing Information-** If the housing coordinators feel the housing information is being spammed; they have the right to remove such questionable content. Also, if landlords have the available housing filled or are no longer offering such housing, they are allowed to delete the housing postings they put up.

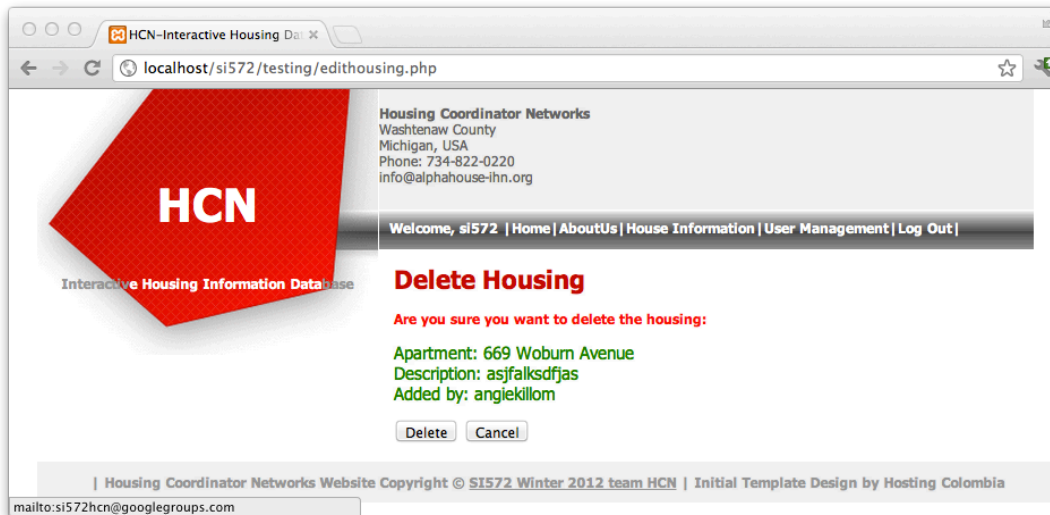
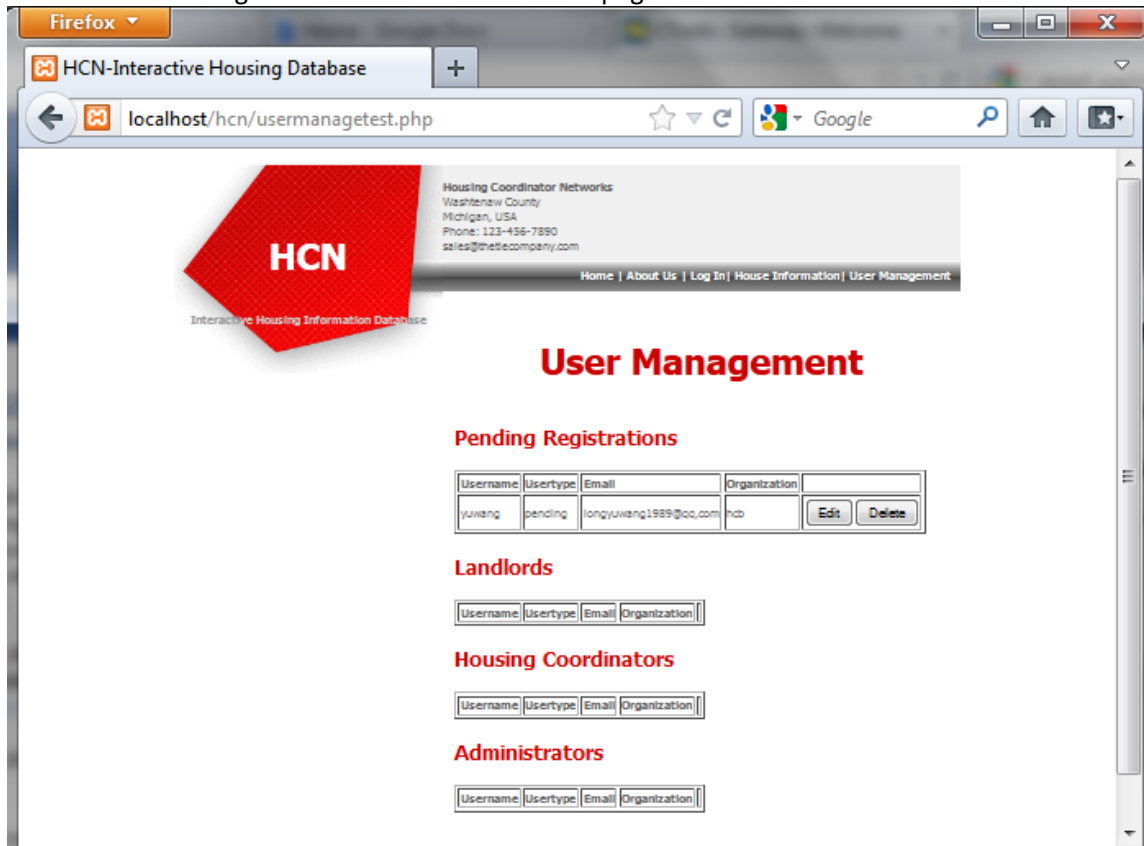


Figure 12: Screenshot of delete confirmation page

Administrators

In addition to the features registered users have, administrators will be authorized the following functions:

9. **Approve registration & Edit other users' profile**- after users fill out their basic information, the administrators have to approve their information before the users can become registered users. Administrators will get a list of users in user index page.



By click the "edit" button, administrators can edit users' profile, so this page will be similar to edit user profile page. By changing user type in this page, administrator could approve users' application.



10. **Delete users-** If the administrators feel that the users are spamming the website with information not pertaining to housing, the administrators have every right to remove the specified user or users. Also, users have the option of deleting their account should they wish to no longer be a part of the housing process. When this happens, the user is removed from the database. If some administrators leave HCN, those administrators should be accordingly deleted.

Automatic Function

11. **Archive housing information updated 60 days ago –** If the housing information has not been updated for the past 60 days, it will automatically be transferred to the housing archive page. Once users edit the housing information in the archive list, the leasing will be shown in the available housing list again.

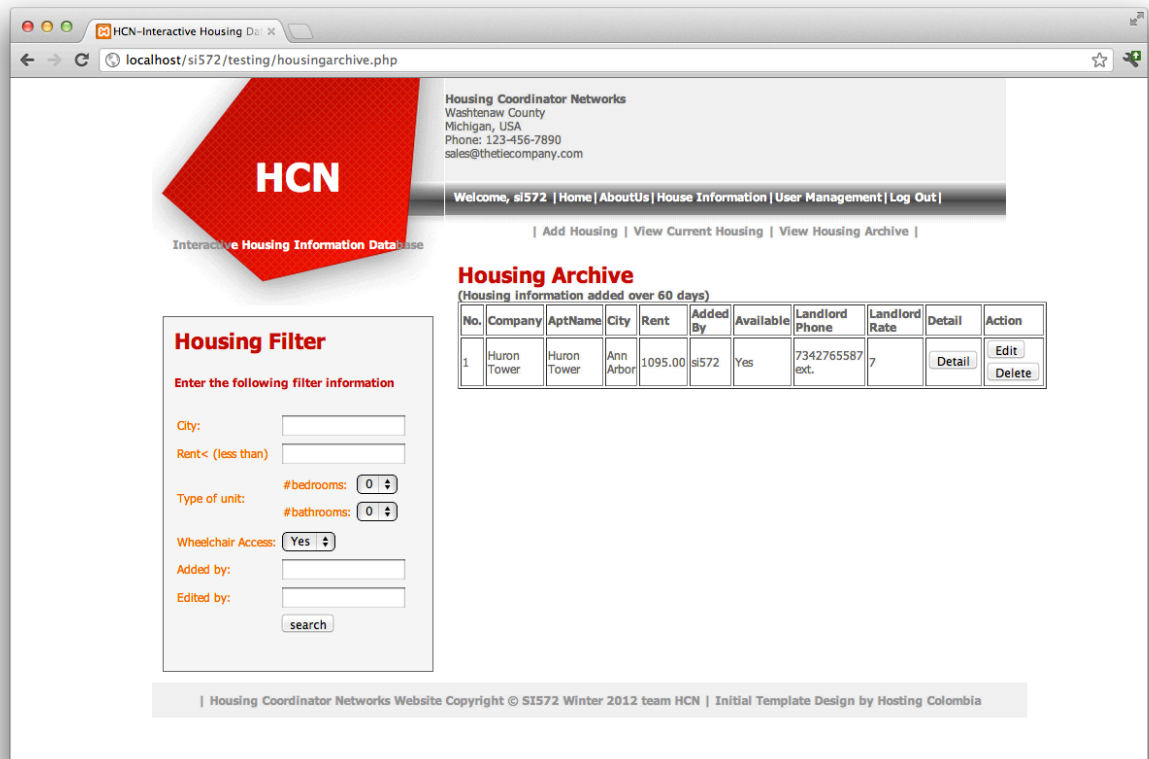


Figure 13: housing archive index page

Process Flow

1. **Registration:** Homepage-User register page-Registered page(a page includes notice that user successfully registered).
2. **Log in:** Homepage-Log in page-Housing Index page(housing list information varies for different type of users)
3. **Approve registration:** User feature registration(unregistered user)-User feature log in(administrator)-User management Page(a list a of pending users will be showed)-Click button "Approve"-User edit page(change user type from pending to one of the registered user type)
4. **Delete Users:** User feature log in(administrator)-User manage Page(a list a of all kinds of users will be showed)-click "edit" button for a certain user-User edit page(change user type to one of the "decline")
5. **Edit user profile:** User feature log in-profile edit page (username and email address are not allowed to change)-change content of each field-click "submit" button-user profile is updated
6. **Get password:** Homepage-Forget pass page-send password to user via email
7. **Add new housing information:** User feature log in-Add new housing page-Input housing information-submit-Housing information is added-Housing index page

8. **Update housing information:** User feature log in-Edit housing page-change housing content-submit-Housing information is updated-Housing index page
9. **Delete housing information:** User feature log in-Delete housing confirmation page-Housing index page
10. **Archive housing information:** Feature add new housing-60 days later- Housing information archived, will not be showed in housing index page
11. **Filter housing :** User feature log in-type in criteria to search - a new list order by rent, update_time etc

Iterations

Sprint – 01 Draft project proposal (All done)

1. Description of organization and users => Yuwang
2. The problem that our application will solve => Vijay
3. How will our application help users => Mike
4. Group communication protocol => Lei
5. Initial project timeline => Lei
6. Combination of parts => Yuwang

Sprint – 02 Presentation (All done)

1. Draft slides => Vijay
2. Review and feedback for slides => All
3. Presentation rehearse => Vijay, Yuwang, Mike
4. In class presentation => Vijay
5. Questions answer => Yuwang

Sprint – 03 Interview with client (All done)

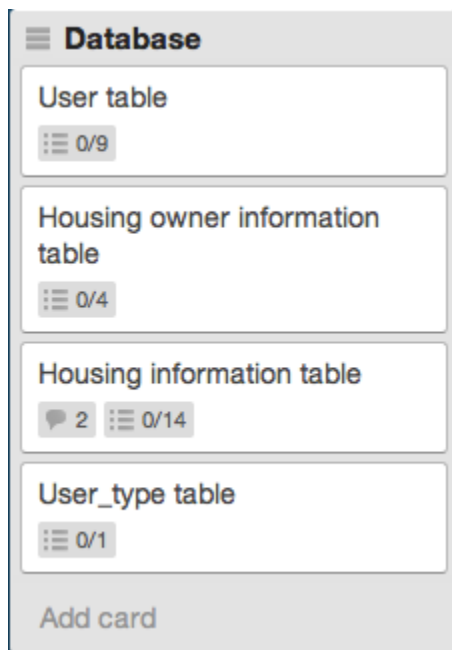
1. Schedule meeting time with client => Vijay
2. Draft questions => All
3. Meeting with client => All
4. Interviewer => All
5. Note taker => Lei

Sprint – 04 Questionnaire (All done)

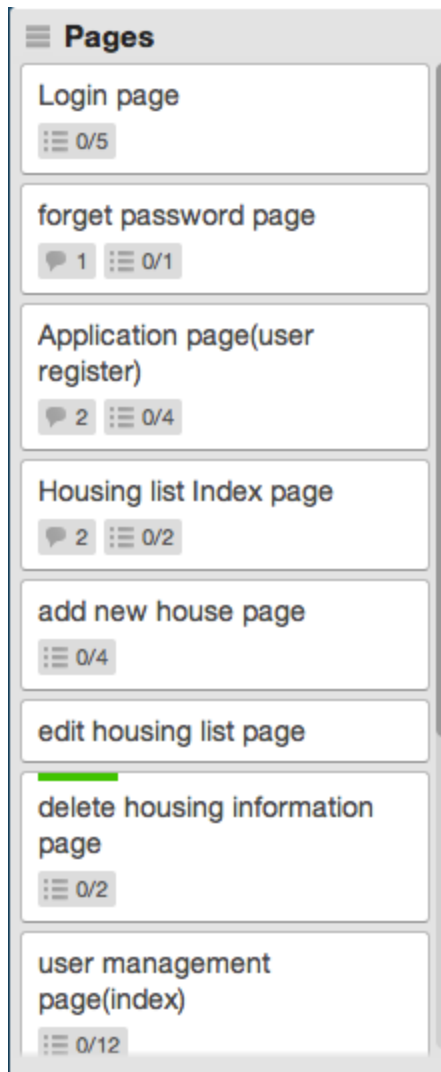
1. Apply to join email list of client => Vijay
2. Draft Questionnaire => All
3. Ask for suggestion from GSI => Lei
4. Send questionnaire to client and collect feedback => Vijay

Sprint – 05 Websites design (All done)

1. Database initial design => Vijay
2. Web page theme collection => Mike
3. Choose theme => All
4. Collect client's idea => Vijay
5. Database final design => All



6. Web page final design => All



7. Database creation => Mike

8. Database structure revision => Lei

Sprint – 06 Program coding

1. Template => Mike(Done)
2. Register => Mike(Done)
3. Log in => Mike(Done)
4. Approve registration => Yuwang(Done)
5. Log out => Mike(Done)
6. User manager index page=>Yuwang(Done)
7. Delete user => Yuwang(Done)
8. Edit user profile => Yuwang(Done)
9. Housing information index => Lei(Done)

10. Add new housing information => Vijay(Done)
11. Edit housing information => Lei(Done)
12. Delete housing information =>Lei(Done)

Sprint – 07 Program testing

1. Create fake data => Vijay
2. Website testing on Windows system => Mike and Yuwang
3. Website testing on Mac system => Lei and Vijay
4. Program modification => Mike

Sprint – 08 Client delivery

1. Schedule meeting with client => Vijay
2. Client delivery meeting with client => Mike, Vijay and Yuwang

Source Code

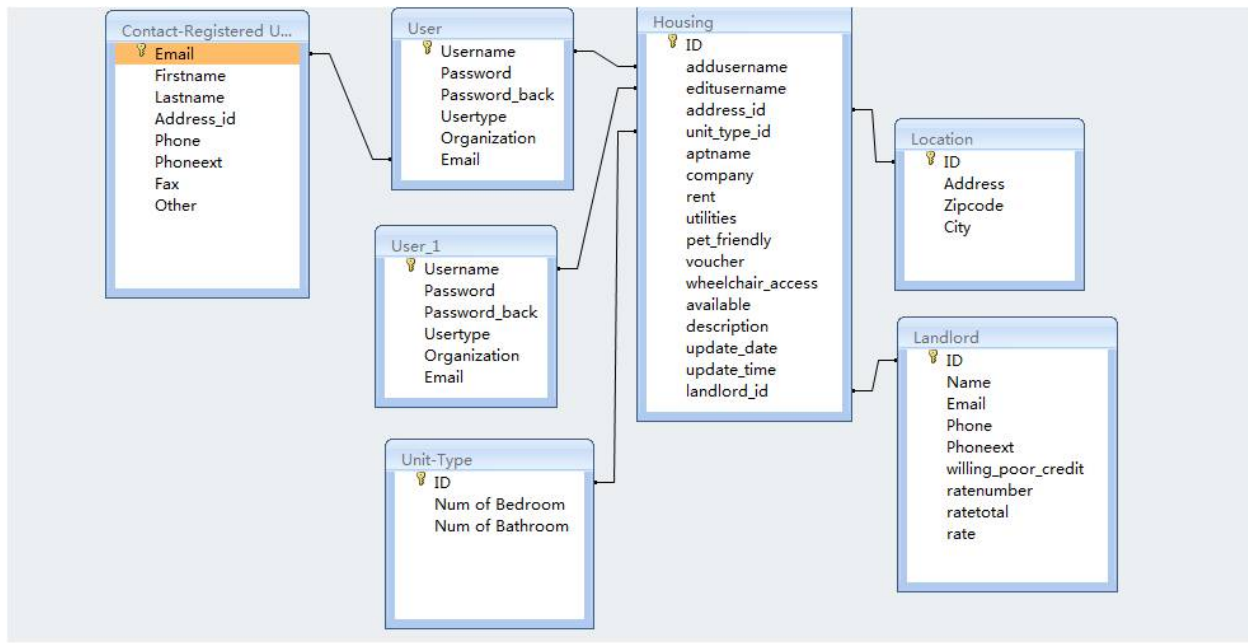
<https://github.com/matrixki/HCNproject/tree/master/project>

Feedback and Future Work

We conducted system testing with HCN members on April 16th this week, and they are planning to apply for domain name and server space to make this database and application accessible to all the members on internet. During the testing, they suggested several recommendations (Appendix B) to improve the web application. We are working on the modification for version 2.

Once HCN gets its domain name and server space, the database and web pages will be uploaded to the server and housing coordinators could have access to the site on their office. By that time, our team will do another integrated testing with more housing coordinators and provide system tutorial to make sure they can use the system well.

Appendix A: Database structure



Appendix B: Suggestions for Version 2

Disclaimer

- Ensure landlords type in correct information

Home page

- Change Housing Coordinator Networks to **Housing Coordinators Network**

Add housing page

- Change the “Landlord Rates” in add housing page to “Landlord Rating”
- Utility drop down list: change the list to: all included, partially included, none included, unknown
- Change the length of input box Organization, currently length is not enough for Mary type in her organization name.
- Make apartment name required(Apartment Name/Street Name, if apartment name is not applicable, use street name)
- Change company name to “Company/Lanlord Name”
- Add a function automatically change the input of cities to lower case
- Change the land lord information to Contact information

-landlord name: contact name, i.e. leasing agent or manager

- Registration approve : when users got approved and they automatically get an email

Housing Index page

- Make the “next page” button in Housing Index page on the bottom of the page
- Show the most recent housing on the top of list(housing index page)
- delete the company name column in the housing list , add a new column(the number of bedrooms) in the list
- show number of pages for the housing list

Search Function:

- Drop down list: blank should mean not specified