

SW Engineering CSC 648/848
Section 02
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HouseHunter

Team 02 (Local)

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1. Product Summary:

We are coming to market with our product HouseHunter. It is a real estate website designed to simplify a the job of prospective homeowners. Below will be a list of features our users can look forward to on our platform.

- A robust search engine allowing for quick searches based on any part of an address. Whether it be home number, street, zip code or city.
- Advanced filters that allow the user to quickly refine search based off of metrics such as price range, number of bedrooms, bathrooms etc.
- Easy contact setup for a user who wants to contact the related agent for a specific home listing, he/she will be able to quickly send a message to the agent expressing interest in home.
- Google maps integration for the user to get a quick idea of where the home is located, and its proximity to other POIs.
- Clear and concise lay out of detailed statistics on the home such as price, number of bedrooms and baths, square footage, etc.
- Featured home listings throughout the website to make sure user is always able to see other options open to them.

What we think is unique about our product is its easy of use, through good design. The website is free of clutter from niche tools and advertisements, allowing users to cut straight to finding new homes. We believe this fosters a more efficient home searching experience.

Website: <https://sfsuse.com/fa17g02/>

2. Usability Test Plan:

Test Objectives:

The objective of our usability test plan will be to identify specific user interactions with the website that could be improved for the sake of general usability. Since our website is in it's beta, it's important to find out the weaknesses in its usage flow now rather than when it is launched. We will be conducting a test that will send a beta user through a series of usage flows touching on the main components of the website. These components will be usage of search, filters, creating a user account, logging in with said user account, contacting agent, and posting a home on the page. Success factors will be based on the Lickert scale, test users will be asked how they **felt** about the process(s). From this we will be able to judge the general usability of the website, and more importantly key in on areas of weakness within the website.

System setup: A laptop with internet capabilities and either Google chrome, Mozilla Firefox and Safari internet browsers.

Test Plan:

Purpose:

The purpose of this plan is to identify key areas of weaknesses within our website when it comes to general usability.

System Setup:

There will be two versions of this test. Desktop browser and mobile browser. For the sake of consistency we will be looking to use Chrome browser on the desktop, and Safari browser for mobile. This allows us to test with the most popular configurations.

Starting Point:

The starting point will be the home page of the website.

Located at: <https://sfsuse.com/fa17g02/>

Tasks Description:

There are three important tasks in order to successfully test out the search function.

Task	Description
Task	Default category selected
Machine State	Category selected, search query typed in
Successful Completion Criteria	“Background” displayed on “Category” tab
Benchmark	Completed in 30 seconds

Task	Description
Task	Find images of cities
Machine State	Empty search bar
Successful Completion Criteria	“city” typed out in search bar
Benchmark	Completed in 30 seconds

Task	Description
Task	Search for “city” in “Background” category
Machine State	Category selected, search query typed in
Successful Completion Criteria	Page displaying all images with “city” in the name
Benchmark	Completed in 30 seconds

Completion criteria:

User has successfully done the following:

- Found all images in “Background” category
- Found all images related to “cities”
- Has gotten a search result based off of the previous choices

User Satisfaction Questionnaire:

The GUI was simple to understand (select one):

- ☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

Comments:

It was easy to search for media (select one):

- ☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

Comments:

The results displayed were appropriate to the search query (select one):

- ☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

Comments:

3) Quality Assurance Test Plan

User Type	Test Setup description	Test Input	Expected Result	Test Status
Non - registered User	Setup: Open the following link in the browser: http://sfsuse.com/fa17g02/ Description: Users shall be able to search for house listings by using a keyword or category.	Category: View Search bar: "enter street, city, state or zip" Click Button: Search	"Search result returned with landing page with search bar and few listings"	Pass
	Setup: Open the following link in the browser: http://sfsuse.com/fa17g02/ Description: Users shall be able to browse house listings'.	Category: "empty" Search Box: "empty" Click Button: Search	"Search result will return with 3 images from the system under featured houses"	
	Setup: Open the following link in the browser: http://sfsuse.com/fa17g02/signUp	Form Fields: First Name Last Name Email Password Confirm password Phone Number	Successfully bring up sign in page and registered as a user.	pass

	Description: The signup button is inside the login page. If users is not registered then, user shall enter his details as required in form.	Click Button: Submit		
Registered User	Setup: Open the following link in the browser: http://sfsuse.com/fa17g02/login Description: User will be able to see contact details of Agent.	Login: with email and password Click Button: Contact agent (of the interested product)	"Successfully bring up message composition page and be allowed to contact the Seller or agent"	pass
	Setup: Open the following link in the browser: http://sfsuse.com/fa17g02/login Description: Users shall be able to contact agent using email or phone number. Note: email not allowed due to security reason.	Login: with email and password Click Button: View the details of property and agent.	"Successfully bring up download page with downloadable link"	Pass
Registered User (Seller)	Setup: Open the following link in the browser:	Click Button: "add listings" Click Button: `"Upload "		Pass

	http://sfsuse.com/fa17g02/Sell Login with username and Password Description: Seller shall be able to upload house images and details to the website.	Form : Fill it up Click Button: "upload"		

4) Code Review

5) Self check on best practices for security

Major assets we are protecting:

- Images uploaded by sellers/agent
 - As we tried to use blob but we were not being able to connect with DB we have all images stored in filesystem.
- User information
 - In order to contact seller, a person must first register as a user. This registration requires email and password. Both are important assets to be protected.
- Password protection
 - Login and register passwords are encrypted passwords that can't be seen or accessed by anyone whether they be guest, registered user, sellers, or administrator.

Input form validation

- Search bar input validation - max 30 characters
- Search bar input validation - no special characters (alphanumeric only)
- Search bar input validation - empty searches shows some random houses.
- Search result output validation - provided valid search, provide some result
- Empty search bar will display some results

6) Adherence to original non - functional specs

I. Application shall be optimized for standard desktop/laptop browsers, and must render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome. - DONE

II. Application shall be developed using class provided LAMP stack - DONE

III. Application shall be developed using pre - approved set of SW development and collaborative tools provided in the class. Any other tools or frameworks must be explicitly approved by Anthony Souza on a case by case basis. - DONE

IV. Application shall be hosted and deployed on Amazon Web Services -DONE

V. Application shall have responsive UI code so it can be adequately rendered on mobile devices only and no mobile app.- DONE

VI. Data such as listing and signup and login in, shall be stored in the MySQL database on the class server in the team's account - DONE

VII. Application shall be deployed from the team's account on AWS - DONE

VIII. No more than 50 concurrent users shall be accessing the application at any time - DONE

IX. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users. - DONE

X. The language used shall be English. - DONE

XI. Our product has basic functionality as required by professor and hence it is really easy to use and intuitive. No prior training shall be required to use the website. - DONE

XII. Contact between users shall be done only by class approved methods and not via e-mail clients in order to avoid issues of security with e-mail services. - DONE

XIII. Pay functionality (how to pay for goods and services) shall not be implemented. - DONE

XIV. Site security: basic best practices shall be applied (as covered in the class) - DONE

XV. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development - DONE

XVI. The website shall prominently display the following text on all pages *"SFSU Software Engineering Project, Spring 2017. For Demonstration Only"* . (Important so as to not confuse this with a real application). - DONE