

**SW Engineering CSC 648/848**  
**Section 02**  
**Fall 2017**

**HouseHunter**

**Team 02 (Local)**

**Udara Gunawardena, Team Lead** | [ugunawar@mail.sfsu.edu](mailto:ugunawar@mail.sfsu.edu)

**Vipul V Karanjkar**

**Aishwarya Laturkar**

**Mohan Maharjan**

**Larry Jiang**

**Savan Patel**

**Milestone 4**

<b>Submission Date</b>	<b>Feedback Given</b>
12/07/2017	

## 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 its 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.

<b>Task</b>	<b>Description</b>
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

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

<b>Task</b>	<b>Description</b>
Task	Find listing in san francisco.
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 houseListings (select one):

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

Comments:

---

The results displayed were easy review and understand (select one):

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

Comments:

---

### 3) Quality Assurance Test Plan:

Quality assurance is systematic process of checking to see whether a product is being developed is meeting the specific requirements. A quality assurance system increase customer confidence and a company's credibility, to improve work processes and efficiency and better compete with others.

User Type	Test SetUp description	Test Input	Expected Result	Test Status
<b>Non - registered User</b>	<b>Setup:</b> Open the following link in the browser: <a href="http://sfsuse.com/fa17g02/">http://sfsuse.com/fa17g02/</a> <b>Description:</b> Users shall be able to search for house listings by using a keyword or category.	<b>Category:</b> View Search bar: "San jose" Click Button: Search	"Search result returned with landing page with search bar and 5 listings"	OK
	<b>Setup:</b> Open the following link in the browser: <a href="http://sfsuse.com/fa17g02/">http://sfsuse.com/fa17g02/</a> <b>Description:</b> Users shall be able to browse house listings.	<b>Category:</b> "empty" Search Box: "empty" <b>Click Button:</b> Search	"Search result will return with 3 images from the system under featured houses"	ok
	<b>Setup:</b> Open the following link in the browser: <a href="http://sfsuse.com/fa17g02/">http://sfsuse.com/fa17g02/</a> sign Up <b>Description:</b> The signup button is inside the login page. If users is not registered then, user shall enter his details as required in form.	<b>Form Fields:</b> First Name: Last Name: Email: Password: Confirm: password: Phone Number:  <b>Click Button:</b> Submit	Successfully bring up sign in page and registered as a user.	ok

<b>Registered User</b>	<b>Setup:</b> Open the following link in the browser: <a href="http://sfsuse.com/fa17g02/login">http://sfsuse.com/fa17g02/login</a> <b>Description:</b> User will be able to see contact details of Agent.	<b>Login:</b> 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"	ok
	<b>Setup:</b> Open the following link in the browser: <a href="http://sfsuse.com/fa17g02/login">http://sfsuse.com/fa17g02/login</a> <b>Description:</b> Users shall be able to contact agent using email or phone number. Note: email not allowed due to security reason.	<b>Login:</b> with email and password <b>Click Button:</b> View the details of property and agent.	"Successfully bring up download page with downloadable link"	ok
<b>Registered User (Seller)</b>	<b>Setup:</b> Open the following link in the browser: <a href="http://sfsuse.com/fa17g02/Sell">http://sfsuse.com/fa17g02/Sell</a> Login with username and Password <b>Description:</b> Seller shall be able to upload house images and details to the website.	<b>Click Button:</b> "add listings" Click Button: "Upload"  <b>Form :</b> Fill it up Click Button: "upload"	Message pop up saying "Listing been uploaded"	OK

#### 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 40 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**

1. 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



2. Application shall be developed using class provided LAMP stack - DONE
3. 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
4. Application shall be hosted and deployed on Amazon Web Services -DONE
5. Application shall have responsive UI code so it can be adequately rendered on mobile devices only and no mobile app.- DONE
6. 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
7. Application shall be deployed from the team's account on AWS - DONE
8. No more than 50 concurrent users shall be accessing the application at any time - DONE
9. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users. - DONE
10. The language used shall be English. - DONE

11. 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

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

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

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

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

16. Implementation of google analytics -DONE

17. 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