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SW Engineering CSC 648/848 Section 02
Fall 2017

HouseHunter

Team # 02

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Milestone 1

Submission Date	Feedback Given
10/3/2017	Modify Use Cases, Data Definition, Competitive analysis.
	Revised Frozen

1. Executive Summary:

We are very pleased to develop a professional real estate website named "**HouseHunter** ". It is a website for home buyers, sellers, and real estate agents. The potential market for the website is substantial as real estate is one of the largest markets in the US and other parts of the world.

The proposed website is a web application designed to easily allow users to search the property either using zip code or by the city. Our website provides an easy way for sellers to post listings and buyers to get into contact with the agent. The basic objective of developing this project is to maintain client details like contact details, property details, client type (residential and commercial clients), price, and other extraneous preferences. Further, this system builds a direct communication between the owner and the buyer. These features should attract more customers and increase home sales.

The application is deployed on Amazon Web Service (AWS), provided LAMP stack environment that consists of the following components: Linux, Apache, MySQL, Node. The Dev framework and APIs include Bootstrap, jQuery, Google analytics. Supported browser matrix includes Google Chrome and Mozilla Firefox.

The website is built by a group of energetic students from computer science department at San Francisco State University. Udara is our Team lead followed by Aishwarya as frontend UI lead, Vipul as backend lead, Mohan as a backend developer, Larry as a frontend developer and Savan as documentation and security measurement tester.

2. **Use Cases:**

1. Unregistered User:

   Carol is a guest user who is interested in buying a residential apartment (property). She goes to HouseHunter website and **browses** on it to search for the **property**. She shall search the property either using zip code or by city name. She finds a property with the match and click on it to view details. If she wants to get in contact with the seller then she will be prompted to create an account and log into the website.

2. Registered User:

   Carol chooses to register to the website in order to contact the seller via her email address/ID and password. **After successful logging** into the website, Carol is given more privileges than unregistered users. She shall now see the complete detail of seller such as phone numbers and office address. In addition to that she shall be navigated to page where she gets to fill out her contact details as well.

3. Seller:

   Tom owns a residential apartment(property) and wants to sell it. He looks at the website and finds our website is user-friendly he decided to post his property as well. As the moment he clicks the post , he shall see the page saying registration is necessary in order to post. He shall use email address/Id and password to create his account. Further, Tom **posts** his **property details** on the website and set price point as well. He is also able to view properties posted and should be able to contact other seller if interested in buying it.

4. Admin:

   Steve is a admin who monitors the entire website and manages the listing to ensure a better user experience for users.

He has the privilege to remove listing, edit descriptions, manipulate property categories, and remove users. He will be in charge of maintaining the content on the website, but is not responsible for backend maintenance. However, he should keep a log of any server or database issues for ease of website maintenance.

3. **Data Definition:**

- **Unregistered User**: They shall only browse the website without being able to post or buy items.
- **Registered User**: Users who have an account, and are logged into it, that are using the site. Registered Users can be both buyers and contributors.
- **Administrator**: Users that have special privileges, and have the ability to remove posts from the site, remove items, issue warnings and bans from the site, and generally enforce the Code of Conduct for the site. Administrators also are responsible for helping users when needed.
- **Items/Services**: The main data item is any property listed for sale, or for purchase on the site. Posting, registration, and search shall be main function.

4. Initial list of functional requirements:

1. Non-registered user shall search the property by using zipcode or city name.
2. Non-registered user shall browse the entire website and must register with a valid email address.
3. Registered sellers shall post property listings for sale and respond to buyers.
4. Registered buyers shall contact property owner/seller.

5. Admin can control property listings and user accounts.
6. Both Non-registered users and Registered users can see the location of searched property on maps API.
7. Registered users shall favorite, like, dislike, or flag property listings.

5. List of non-functional requirements:

1. Our website shall be able to run on at least two latest versions of all major browsers: Mozilla,safari and chrome
2. All users shall be able to see a legal disclaimer displayed on all webpages.
3. Application shall be hosted and deployed on Amazon Web Services as specified in the class
4. Web application shall be responsive UI and change accordingly to mobile devices.
5. Application shall be deployed from the team's account on AWS and data shall be stored in the MySQL database.
6. Language used shall be in english and easy to use. App shall be very basic so that all users will be comfortable to use it.
7. Users information shall be top priority and shall be protected. Google analytics shall be included.
8. App will be supporting only 50 users at a time and due to privacy and security concern no one will be allowed to send or receive email services. In case a buyer wants to contact seller then it shall be through cell phones or in person contact.
9. Since it's a college project, we shall not implement paying options.
10. The website shall include the text on all the pages "SFSU Software Engineering Project,Fall 2017. For Demonstration Only". This is added so that other users will not get confused.

6. Competitive analysis:

Feature	Zillow	Trulia	HouseHunter
Search bar	+	+	+
Navigation Bar	+	+	+
Home page property listings	+	++	++
Like/Dislike Option	+		+
Location on map	+	+	+
Property information	++	+	+

+ feature exists; ++ superior; - does not exist

Summary:

Comparing our planning product and others, we attempt to have a multiplicity of uses for users. Similar as other products, it also supports different types of images, such as, jpg, png..., etc. Our site allows users to quickly access properties using price range as well. So our product covers functions alienable in other products as well. Also, using Google analytics our website shows recommended and most accessed properties. It will also help admin to see the most viewed properties. we have like and dislike buttons and based on that review we will remove the contents or add similar liked contents.

7. High-level system architecture:

A. **Primary Dev Component:**

1. Unix Terminal : We are using terminal as our primary platform for both application development and deployment. Designing Languages: HTML, CSS, JQuery.

2) Apache : We are using Apache web server to allow users to access our

application in the web.

3. MySQL : User data will be stored and managed using MySQL workbench database system.

4. Node.js : Node is the scripting language that allows creating web application with dynamic content.

B. **Development Framework**

1. Bootstrap: Bootstrap shall be used for front end development. It helps us to design responsive web pages for different screen sizes easily.

2. Google analytics : Google Analytics Solutions offers free and enterprise analytics tools to measure website, app, digital and offline data to gain customer insights.

C. **Web Application Deployment:**

1. Application will be deployed on Amazon Web Services (AWS), the cloud-computing platform.

D. **Supported Browser:**

1. Google Chrome- Latest
2. Mozilla Firefox- Latest

8. Team:

Team	Roles
Udara Garawardera	**Lead**
Vipul V Karanjkar	**Back-End Lead**
Aishwarya Laturkar	**Front-End Lead**
Mohan Maharjan	**Back-end developer**
Larry Jiang	**Front-end developer**

Savan Patel	**Documentation and security**

9. Checklist:

A. Team decided on basic means of communications- DONE
B. Team found a time slot to meet outside of the class- DONE
C. CTO chosen and working out well so far- DONE
D. Github master chosen- DONE
E. Team ready and able to use the chosen framework- DONE
F. Skills of each team member defined and known to all- DONE
G. Team lead ensured that all team members read the final M1 and agree/understand it before submission- DONE