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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	Feedback Implemented
10/3/2017	Modify Use Cases, Data Definition, Competitive analysis, and use shall instead of can or should.	- Modified Use Cases

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.

Use Cases:

1. Guest 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**. Further, she finds a property with the match and click on it to view details or to buy it and is prompted to log into the website.

2. Registered User:

   Carol now shall create an account on HouseHunter website. **After successful logging** into the website, Carol becomes a Registered User. She shall now visit the property on HouseHunter and further contact Tom(The Seller of the property) for additional queries.

3. Seller:

   Tom owns a residential apartment(property) and wants to sell it. He creates an account on HouseHunter and logs into the website and becomes a Registered User. Further, Tom **posts** his **property details** on the website. He is also able to view other properties posted on the website and is also able to buy a property if interested in buying it.

4. Admin:

   Steve is a Website Administrator who **handles the entire HouseHunter website**. He manages the property information on the website and identifies it as residential or commercial. He also handles the Registration. Further, Steve manages the seller, the registered user, and the advertisements to be displayed on the website.

5. Advertisement:

   Steve(The Website Administrator) is responsible to handle the advertisements. He shall verify the advertisement and then **approve or reject** the request.

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**: Administrator is the person who is responsible to manage the entire website. Admin maintains all the information on the website, and also handles advertisement.
- **Items/Services**: Any object which is for sale, or for purchase on the site.

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.

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.

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. It can be uploaded many format types of images, such as, jpg, png..., etc. our website allows users to quickly access properties using price range 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.

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
3. Safari

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**

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