

PrimeEstate Project Specifications

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Milestone #1

Group #3

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PrimeEstate Requirements Specification

1. Executive Summary

PrimeEstate provides sleek customized solutions in web design and we will create and maintain an interactive and dynamic real estate website. Outlined in this document you will find our proposed design and our suggested website format. We will create a professional, competitive, and dependable website that resonates with our **users'** high expectations. We are committed to working with the **users** to create a product which streamlines the home buying experience. Website sections, design concepts, and the user experience 'flow' will all be central to our product development.

Once we have established ourselves in the market as a trustworthy, easy-to-use, and reliable alternative, we will consider more novel features that separate us from the competition. We have future plans to implement a 'favorite' option where **customers** can add houses they like to a personalized list -- but we want to ensure that our product reflects our **users'** needs first and foremost. As our team is extremely capable, we intend to make sure that our product's features are reliable and future feature development will be driven by our **users'** needs.

The website will begin as a basic, yet competitive real estate website. We intend to integrate standard features that will ensure its reliability and ease of use. These features include: registration for **realtor** and **customers**, search ability for current **listings**, **listing** options for **realtor**, **listings** featuring pictures, **listing** descriptions, and **realtor** contact information. All of these features will be executed in a way to ensure our product is a competitive alternative to current real estate websites.

2. Use Cases

The principal users in the use cases are the customers and the realtors, the goal being creation of a platform for the customers and the realtors. The use cases for the website have been decided upon as:

2.1 Add Listings (**Realtor**)

The real estate agency through its research and leads obtains a list of houses that are up for sale. This data is passed on to the realtor who is in charge of putting up each of the houses on the websites. Each house will have a unique listing. The listing will also contain all the relevant information about the house:

- address of the house
- number of bedrooms
- number of bathrooms
- parking spots if any
- year built etc.

All of these details are to be entered by the realtor, since this will ensure that the house is capable of being found when browsing through the listings.

I'm Larry, a user of the PrimeEstate website in the capacity of a realtor. After signing up for an account on the website, and signing in, I want to add listings of houses that are available to me on to the website. This will enable potential customers to access information regarding the property at any time and any place. I must be able to add details of the house such as the number of bedrooms, the square foot area, and the address of the location. I do not want these to be in form of a paragraph. They should be neatly formatted in a way such that it is easy for the customers to read, rather than have them face a wall of text.

2.2 Modify/Review Listings (**Realtor**)

Once the houses are on the website, there is a possibility that some details of the house may need to be edited. It is also important to be able to identify and review customers who are interested in listed properties.

I'm Peter, a user of the PrimeEstate website in the capacity of a realtor. I want to edit and review the listings of houses on to the website. When I log into my account I want to be able to see a listing of my current properties. Often, the value of the property

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fluctuates with market conditions and I need to be able to edit the listing after it is posted. The edit feature will enable our customers to see updated information regarding the property at any time and any place. Also, it is a required feature since I could make errors while filling out the form! I must be able to edit details of the house such as the number of bedrooms, the square foot area, and the address of the location. On my seller listing page, it is essential that I can see the level of interest my postings are getting ‘at-a-glance’. I want to be able to tell how many users are interested in a specific property and be able to get more information about the interested users in a separate window.

2.3 Delete Listings (**Realtor**)

Deleting listings of houses from the website which are no longer on sale or have been sold.

I’m Max, a user of the PrimeEstate website in the capacity of a realtor. It could so happen that I change my mind and need to pull a listed property off the market. In this case I want the listing to be removed from the website so that potential buyers are not confused with the listing. Similarly, once a property has been sold, it must be removed from the website. I want this function to be displayed where I am able to edit the details of the house.

2.4 Browse Listings (**Guest**)

The customers access the website where they can search for homes. They need not be registered members of the website to view the homes. They can view the homes based on the criteria they prefer, that is:

- budget
- area
- number of bedrooms etc.

This use case is heavily dependent on Use Case 2.1. If the data entered is incorrect or incomplete, the customers will not be shown the listing in their search results.

I’m Stan Shmucklebly, a user of the PrimeEstate website in the capacity of a guest. I would like to be able to access and easily navigate the posted listings. When I arrive at the entry page I would like to be able to register or be able to search the listings available. I would like to be able to filter the listings according to my requirements to my requirements. It is important that the search is powerful and that there are adequate results for the searches I enter. It is important to me that I be able to register before and

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after the search is completed, if I am impressed with the results, I may want to become a PrimeEstate customer.

2.5 Create a profile (**Customer**)

Customers can register on the website to gain certain privileges. Registration will allow the customers to create a personalized profile where they can enter their favored search parameters like budget and number of bedrooms. By doing so, the system shall use these saved entries to show properties which are relevant to the customer. Thus, this targeted advertising leads to a higher percentage of conversion from the potential customers to that of customers. Registration also allows the customers to setup appointments for open days and contacting the sellers.

Getting the potential customers to register is very important to the agency. This is because it allows the agency to communicate with the customer. As and when the properties which suit a particular customer hit the market, the agency can immediately contact the customer by means of a mobile number or an email address. Thus by reducing the time taken to make a sale, the overall productivity of the workforce can be improved.

It is also a measurement of growth for agency. A user base that keeps growing implies that the agency is doing a good job with respect to advertising and marketing.

I'm Peter Polinski, a user of the PrimeEstate website in the capacity of a Customer. After I resister myself with the website I need to be able to create profile indicating properties which interest me. I must be able to indicate key preferences such as number of bedrooms, price range, and zip code - so that when I sign in, I have access to a special listing of houses that match my profile. I will also be able to change these settings after my profile is initially created, incase my needs change.

2.6 Save a listing/Contact a realtor (**Customer**)

Saving a property that a customer is interested in is important, as it will serve as a basis for realtors to reach out and contact interested potential customers:

I'm Sally Salvern, a user of the PrimeEstate website in the capacity of a Customer. It is important for me that I am able to contact realtors about properties I am interested in. When I search for properties or my profile returns a list of properties it is important that I be able to click a button to contact the realtor and express interest in a listing.

3. Data Definitions and Glossary

User	Any viewer of the website: customer, realtor, or guest
Customers	Buyers, Users interested in buying a house. Customers are allowed to create a profile involving housing specifications which meet their criteria. They are also allowed to contact realtors to express interest in a house and request more information
Realtors	Sellers, Users interested in listing a house. Realtors are able to create/modify/delete listings and access the e-mail address and user names of customers who are interested in their listings .
Guests	Unregistered User. Guests are allowed access to the search box and search results. They are also able to register to become a customer .
Administrator	Party Responsible for the content of the website. The administrator has the ability to create and delete customer and realtor accounts.
Listing	House Listing - includes photo, number of rooms, price, street address, zip code, state, city, and house specifications.

4. Functional Specification

1. Users shall be able to search by types of properties categories.
2. Users shall be able to search by property features.
3. Users shall be able to search by addresses and zip codes.
4. Users shall be able to search by market price of properties.
5. Customers shall be able to register as a customer and save preferences.
6. Customers shall be able to enter their contact information.
7. Customers shall be able to contact agent to express interest in a property.
8. Customers shall be given to option to not receive notifications
9. Customers shall have personal profile kept private and inaccessible from third parties
10. Realtor shall be able to post listings.
11. Realtor shall be able to manager their listings (modify and delete).
12. Realtor shall be able to register as a realtor.
13. Realtor shall be able to view list of potential customers.
14. Administrators shall be able to remove fraudulent accounts.

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15. Administrators shall be able to remove fraudulent listings.

5. Non-Functional Specifications

1. Application shall be developed using class provided LAMP stack
2. Application be viewable in a standard desktop/laptop/mobile browsers, and shall render correctly on version 37.0.2062.124 of Chrome and version 32.0.3 of Firefox.
3. Application shall render well on portable devices
4. Application shall be deployed on Amazon Web Services as specified in the class
5. Data shall be stored in the database on the class server in the team's account
6. No more than 50 concurrent users shall be accessing the application at any time
7. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
8. The language used shall be English.
9. Application shall be very easy to use and intuitive. No prior training shall be required to use the website.
10. Google analytics shall be added for major site functions.
11. The website shall prominently display the following text on all pages "SFSU/FAU/ Fulda Software Engineering Project, Fall 2014. For Demonstration Only".

6. Competitive Analysis

Feature	PrimeEstate	Trulia	Realtor	Movoto	Zillo
Login	++	++	+	-	++
Search	++	++	++	++	++
Pictures	++	++	++	++	++
Description	++	++	+	+	++
Save Houses to profile	++	++	++	++	+
Ease of Use	++	++	++	+	+
Absence of Page Clutter	++	-	-	+	+

According to our competitive analysis of four competitors, they all do well with the housing search, pictures, and description features. Therefore, to ensure our product is competitive we will have to ensure that we focus on these areas. We plan to do better than the competition with our ease of use and overall customer experience. We found that overall the sites that did better with the basic features, such as Trulia, also struggled with site clutter: i.e. unwanted popups when first reaching a page, and trying to register. We plan to focus on the basics and enhance the customer's experience by not introducing 'site clutter'.

7. System Architecture

The following is a list of the products, external API, and tools we tentatively intend to deliver our final project:

7.1 LAMP

7.2 Bootstrap:

- We will use bootstrap for the front end development and allow it to dynamically manage mobile formatting

7.3 jQuery:

- front end interface development. We will use it to load content dynamically into the page, to make web page more interactive (ie autocomplete in the search bar)

7.4 SVN:

- version control tool

7.5 Google analytics:

- optimize our features

We will support/test our product on version 37.0.2062.124 of Chrome and version 32.0.3 of Firefox.

8. Team Roles

Name	Position
Jonathan Olson	Team Lead/Backend
Alex Lyshevyh	Backend Lead/Database Specialist
Dong Li	Frontend/Scripting
Rushab Indi	Frontend Lead/Subversion Administrator
Yi-Hsien Chen	Frontend/User Experience