Detailed Design Document

for

Real Estate Web App

**Version 1.0 approved**

**Prepared by Claudia Sucre, Gilbert Cyr, Zhixun Zhao, and Mohammed Faran**

**Organization: University of South Florida**

**Date: 1-26-21**

**Table of Contents**

**Table of Contents ii**

**Revision History ii**

**1. Introduction 1**

1.1 Purpose 1

1.2 Document Conventions 1

1.3 Intended Audience and Reading Suggestions 1

1.4 Product Scope 1

**2. Overall Description 2**

2.1 Product Perspective 2

2.2 Product Functions 2

2.3 User Classes and Characteristics 2

2.4 Operating Environment 3

2.5 Design and Implementation Constraints 3

2.6 User Documentation 3

2.7 Assumptions and Dependencies 3

**3. External Interface Requirements 4**

3.1 User Interfaces 4

3.2 Hardware Interfaces 4

3.3 Software Interfaces 4

3.4 Communications Interfaces 5

**4. System Features 5**

4.1 Description and Priority 5

4.2 Functional Requirements 6

**5. Other Nonfunctional Requirements 7**

5.1 Performance Requirements 7

5.2 Safety Requirements 7

5.3 Regulatory Requirements 7

5.4 Cybersecurity Requirements 7

5.5 Software Quality Attributes 7

6. **References** 8

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
|  |  |  |  |
|  |  |  |  |

# Introduction

## Purpose

The purpose of this detailed design outline is to provide a high-level and detailed description of the real estate website. This documentation aims to provide a detailed list of requirements for both the designers and the users of the real estate website.

We created this project to provide the user with another way of searching for homes for sale or for rent, as well as to provide a platform to sell or rent their house. Our goal is to provide a fresh new web-based app that helps them accomplish this task with an easy-to-use interface. Due to the pandemic, people may not be able to get access to live tours of houses. Our application tries to help with this problem by providing a way to search for homes and get some important information about them.

## Document Conventions

When writing the SRS document for Delta Real Estate Project, the following terminologies are:To make the document more effective and readable I used better font style and font size and headings are bold. lists are headed by bullet points for better reading experiences.

## Intended Audience and Reading Suggestions

This document aims to provide a clear outline of our project so that developers can have an idea of our goals. We also want marketing staff to understand what we are trying to accomplish in order to help us spread the word about our real estate website. In addition, users will want to understand how the website works and the best ways to use it.

## Product Scope

The purpose of this web application is to provide customers with a place to look at houses for rent or for sale in Florida.

The real estate website allows a realtor to upload information about potential properties, while also providing an easy way to search for them. The website will be set up so that the realtor will have total administrative rights to their listings. This website will be developed for one realtor, but will be able to accommodate the needs of any realtor across Florida.

# Overall Description

## Product Perspective

The real estate website will serve two areas: potential clients and realtors. It will utilize the scripting language PHP and the relational database MySQL while being hosted on an Amazon Cloud server. Since this system will be a web-based application/site, a proper Internet browser, such as Chrome or Internet Explorer, will be needed for viewing and interacting with its contents.

## Product Functions

* The product shall display all the housing models which are available in the database.
* The product shall allow users to search for a house based on different categories, including but not limited to:
  + price,
  + location,
  + property type,
  + number of square feet,
  + number of bedrooms and bathrooms,
  + listing status,
  + community amenities,
  + heating/cooling,
  + garage, parking and outside features
  + lot/view
  + home age and number of stories.
* The product shall enable users to upload and insert their own houses’ information into the database, which will be stored in the database and displayed on the web platform.

## User Classes and Characteristics

The user classes include people who are interested in searching for Florida real estate information. They also include people who are looking to buy, sell, and rent houses in Florida. This could be a user that wants to find a permanent place to live in Florida, or someone who wants to take a vacation there.

The user classes also include agents/realtors and as well as potential house owners who like to post selling/renting house information.

## Operating Environment

The front end of the project is going to be a web based application. The customer could use this product through any kind of browser on either Window/Mac platform. The website interface is connected with a database through an Amazon cloud server. Therefore, the user must have an Internet connection and access to a browser to use this website.

## Design and Implementation Constraints

Completion: The real estate website must be complete by the end of April 2021. Due to this deadline, the developers of this project must work at a faster pace than normal.

Budget: Because the developers are students, there is a limited budget for this project. These budget constraints must be considered when deciding how to design the server and database that this project requires.

## User Documentation

The website will be intuitive and will give the customer tips on how to use it. Our goal is to provide a full tutorial that is built into the website. We will also provide a way for users to contact us for support. Our hope is that this will help the user be able to figure out how to use the website.

## Assumptions and Dependencies

User Competency:

The user must have a basic knowledge of how to operate a computer and browse the Internet.

Software:

The server for this website will be installed on an Amazon cloud server, and this server will be expected to run for most of the time.

Communication:

The web browsers will be able to communicate with the website, which can communicate with the server. The customer will clearly be able to communicate with support staff to explain any issues they may have.

Internet:

The user must have access to the Internet to use the website. A high-speed connection is recommended, but is not required.

# 3. External Interface Requirements

## 3.1 User Interfaces

Home: Users should be able to access and change user account information as well as logout with ease.

Registration capabilities: New customers must have an easy registration experience. They must be able to upload information on a house after login.

Login: The customer should be able to easily see the login. The login should be placed in the top of the page and be in a font that is easily seen.

Password Reminder: Agent/Realtor Should be able to retrieve access info via email. This should be an intuitive process that requires minimal effort.

Agent/Realtor ContactInformation:The user must be able to access contact information about specific agents once they arrive on the Real Estate website.

View Listing Photos: The user must be able to view a photo of the house once they click on one of the available listings.

Administrator:The administrator should be able to monitor the website and supervise all the processes.

## 3.2 Hardware Interfaces

Does not apply.

## 3.3 Software Interfaces

Hosting Service: AWS

Source: https://aws.amazon.com/

This hosting service will serve as the hosting of the MySQL relational database and the web site PHP and HTML web pages. The hosting service will have the necessary software requirements to run MySQL and PHP code.

MySQL Database:

Source: <http://www.mysql.com>

This relational database will serve as the backbone of the Real Estate website. It will allow the realtor‟information to be captured, stored and then displayed in various forms to each user who visits the website.

PHP Hypertext Processor:

Source: <http://www.php.net>

PHPwill interface and interact with the MySQL database to retrieve and process data to provide dynamic data to the users in the form of a XHTML document on the web.

## 3.4 Communications Interfaces

**Chrome**

Source: https://www.google.com/chrome/thank-you.html?brand=FKPE&statcb=1&installdataindex=empty&defaultbrowser=0

Chrome is a free and open source web browser that will interpret the HTML markup the PHP creates and apply the necessary styles as defined in the various CSS pages to create the overall look and feel of the web site.

**Microsoft Edge**

Source: https://www.microsoft.com/en-us/edge

Edge is a web browser that will interpret the HTML markup the PHP creates and apply the necessary styles as defined in the various CSS pages to create the overall look and feel of the web site.

and any modern web Browser like the two above would serve a similar function as the communication interfaces.

# 4. System Features

## 4.1 Description and Priority

The agent/realtor and potential client must be able to utilize the Real Estate website in the most efficient way possible with the given design and in regards with standardized web flow. The users need to be guided with easy to use web pages that are presented in a way that can accommodate even the novice user but all the while have the features that experienced users can take advantage of such as specific detailed searches. Each page will be neatly arranged and displayed in an easy to understand design.

**4.2** **Functional Requirements**

**Registration**:

Application provides a link for the Users/Client Registration.

**Log In**:

Administrator and Client can log in by entering username and password and manage their work on the website.

**Save information**:

Client enter all its necessary information by filling personal info form and system

save that information.

**Change requirements**:

Clients can change any of their requirements any time.

**Record Order Details**:

Clients enter all details of its order and the system saves all that details.

**Show services**:

There is a list of all types of services the company is dealing with the available

themes..

**Show Properties**:

System display list of available properties.

**Ask property details**:

System asks for Deal type, Property type, Different price ranges, location, and other necessary information related to property.

**Display photographs**:

In order to gain more attraction, photographs of the properties held by company is displayed

**Provide feedback**:

Clients can provide feedback about services through feedback options.

# 5. Other Nonfunctional Requirements

## 5.1 Performance Requirements

The performance requirements consist of speed of response, execution time, and availability. The functionality of everything from logging into your account to searching for properties should have no errors/bugs.

## 5.2 Safety Requirements

* Users will be required to have an email and password to log in. Customer data will be protected.
* Agent‟s passwords will be encrypted within the database.
* Pages of the Real Estate Website must be accessed in the way they were intended to be accessed. Included files shall not be accessed outside of their parent file.
* Agents can only perform administrative tasks on pages they are privileged to access.Clients or casual users will not be allowed to access the agent control panel administrator areas.

## 5.3 Regulatory Requirements

The Real Estate website will have a privacy policy to ensure protection of the customers’ data. We will adhere to the policies and regulations listed in our privacy policy.

## 5.4 Cybersecurity Requirements

**Security**:

• Agents’ Passwords will be encrypted within the database.

• Pages of the Real Estate Website must be accessed in the way they were intended to be accessed.

## 5.5 Software Quality Attributes

**Maintainability**:

• All PHP pages used by the Real Estate Website Will be centrally located within the file structure so that any update will affect all areas where the modified code is called.

• Administrators Will have the ability to edit the aspects of the Real Estate Website that directly relates to their account.

**Reliability**:

• The Amazon Web server should always be available no matter what time a user attempts to access the Real Estate website.

• The information processed by the Real Estate Website must be validated on the server-side before being processed in order to ensure user input is not malicious.There will be code in place to prevent invalid user input.

• The database should maintain data normalization by implementing a primary and foreign key system so that discrepancies do not occur within the data.

**Flexibility:**

System must be flexible so that it can easily accept all changes at low cost, time and experience.

## 6. Reference

Cross, B. (2011, February 7). Software Requirements Specification For Real Estate Web Site. Retrieved January 29, 2021, from https://docplayer.net/17250352-Software-requirements-specification-for-real-estate-web-site.html