

3/31/21

## **Realtor Website SPMP**

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Revisions Sheet (History):

First Revision:

Revised and resubmitted on 4/27/21.

- Project Schedule Gantt Chart added under Project Organization Section 2E
- Selective Process discussed under Managerial Process Section 3F
- Configuration Management explained under Managerial Process Section 3F

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### **Preface:**

The purpose of this project is to design a fully functioning website for a realtor to utilize, which will assist them in their day-to-day operations and give a crucial online presence. To complete

this objective, the website will utilize social media, allow clients to connect with each other, and provide first looks onto new home listings in the local area. The final project will be a place for people to access the market directly and learn how to add their properties as well.

## **(1)Introduction**

### **1.a Project Overview**

The goal of this project is to create a working prototype of a website that allows a realtor to communicate with and find clients, post new home listings, and provide necessary information and documents. This website will have detailed guides provided by the realtor to assist people with the tedious process of buying or selling a property. Along with that, the realtor can receive helpful feedback that will also boost their credibility, as there will be a location on the page for people to leave reviews for one another. Another goal is to integrate a way for the realtor to schedule and perform online meetings directly with customers, through the website. A bootstrap front-end framework will be used to get started and create an appealing modern design visually. Later on, as parts must become integrated to work together, back end developing will ensure that everything functions properly. All tasks are set to be completed and create a prototype by the end of May 2021.

### **1.b Project Deliverables**

The following deliverables will be provided.

1. Software Project Management Plan (this document)
2. Software Test Plan (STP)
3. Software Quality Assurance Plan (SQAP)

4. Technical Status Report
5. Technical Documents and Software
  - Software Requirements Specification (SRS)
  - Software User Documentation
  - Source Code (including installation and configuration instructions).

### **1.c Evolution of the SPMP**

It is scheduled to have a working prototype completed by end of May. Unscheduled changes due to a change in clientele needs will be documented and made available to all people it concerns.

Once documented to Github, tasks will be organized in order to accomplish the clientele's needs in the given timeframe.

### **1.d Reference Materials**

Will be added when references are utilized.

### **1.e Definitions and Acronyms**

API – Applications Programming Interface

GUI – Computer User Interface

JDK – Java Development Kit

RAD – Requirements Analysis Document

BIOS – Basic Input Output System

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COBOL – Common Business Oriented

DBMS – Database Management System

ISP – Internet Service Provider

BEM – Block Element Modifier

CDN – Content Delivery Network

CRUD – Create Read Update Delete

CTA – Call to Action

## **(2) Project Organization**

### **2.a Project Model**

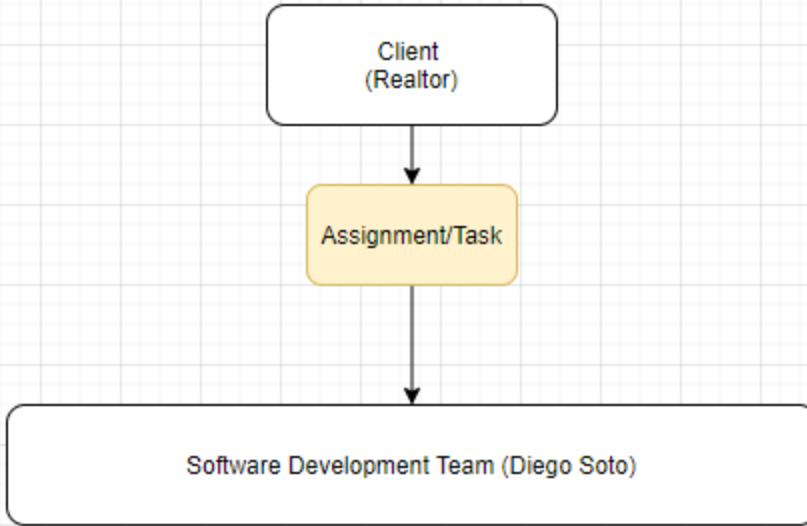
This project was started on February 1<sup>st</sup>, 2021 and will be completed by the end of the semester.

Some essentials to starting the project include completing the Use Cases, Requirements

Document, and SPMP document for approval by 3/31/2021.

The project will use object-oriented code and outside resources for development. The project will be split up into several phases to be done by specific deadlines. There will be a certain number of phases to complete shown on Clubhouse (a website to organize all aspects of the project, listing necessary parts that are still not finished). After each phase it then is labeled as completed on Clubhouse, and the primary focus moves onto the next phase. The project files and documents will all be uploaded using GitHub and coded in JavaScript, HTML, SCSS. There will be properly named repositories for each corresponding file and document.

### **2.b Organizational Structure**



c) Figure X Organizational Structure

## 2.c Organizational Interfaces

There will be minimal communication between any other entity besides the client and the developer in this current assignment. This is due to the lack of foreseeable need for a client base. However, the developing team will be attempting to connect the databases to other forms of frontend and backend software.

## 2.d Project Responsibilities

The following table identifies and states the nature of each major project function and activity, and identifies the individuals who are responsible for those functions and activities. In this case it is an individual project, so Diego Soto is responsible for ensuring all the tasks for the given roles are completed.

<b>Role</b>	<b>Description</b>	<b>Individual(s)</b>
Project Manager	Manage system development. Chair management reviews and project reviews.	Diego Soto
Hardware Acquisition Team	Acquire/develop hardware and equipment.	Diego Soto
Software Project Manager	Oversee software development activities. Develop and maintain SDP.	Diego Soto
Software Development Team	Code, integrate, and unit test the software. Support testing and delivery.	Diego Soto

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## 2.e Gantt Chart



### **(3) Managerial Process**

#### **3.a Management Objectives and Priorities**

Our main goal is to create fully functional software that will accurately meet our client's needs.

We will keep a strict weekly schedule to ensure tasks are completed in a timely manner. As Diego Soto is managing this project and currently stands as a student, we will keep our costs as minimal as possible, preferably under \$200. Third-party software may be included with the consent of all team members in a holistic fashion and/or in a modified way. Most of the third-party software will likely be open source.

#### **3.b Assumptions, Dependencies and Constraints**

Assumptions: We assume that our team has very little experience in development, therefore, patience is key, and outside resources will be helpful such as class notes and other free online sources.

Dependencies: We are dependent on the client's needs; making sure that our team and the client are up to date with each other. In addition, our team is dependent on the guidance of Professor Broadwater to teach the team on how to develop and point us the right direction.

Constraints: We are constrained by classes our team is taking which affects our time, the same would apply for jobs. Also as students our budget is extremely limited.

#### **3.c Risk management**

Risks will be assessed by each team member, which in this case we have one. Diego Soto is responsible for checking over completed work to ensure that there is minimal to no risk. Once a risk is identified it will be recorded in a separate document and brought up in our weekly

objectives as a priority, unless it is critical to the fluidity of the weeks' tasks. If it is not resolved, meaning there is still a minimal risk, then it will be transferred to the permanent watch list which will remain in consideration when proceeding there on in, to be repaired more towards the end.

### **3.d Monitoring and Controlling Mechanisms**

Diego Soto must keep up to date with the weekly objectives managing and completing tasks before overdue. If through our monitoring we notice we fall behind, phase goals will be adjusted to compensate for what was missed, doing the best possible to keep the rest of the schedule as planned. We will set hard deadlines and be always willing to change them if extra time is needed as well to finish a project that team member(s) are working on.

### **3.e Staffing Plan**

There will be one student managing this project. Availability is a concern as we only have one member and are working during these trying COVID-19 and global pandemic times, so it should be known that if something personal pops up to be understood. That is not to be taken as "I can get away with not doing my work," but we are all humans, full-time students, and some working on top of that. Each member will have to bring new ideas to the table whether it is web design, code, etc. It is seen very unlikely that the people involved in this project will drop the course, and so that is not a concern. We can of course guarantee that our best effort will be given.

### **3.f Selective Process and Configuration Management**

This project will follow the Waterfall Model, as it will be organized in well defined steps and tasks. The intent is for a better-quality product to be delivered on time and within the budget.

The main phases generally include:

- Communication – requirements gathering
- Planning – estimate schedule tracking
- Modeling – analysis design
- Construction – code test
- Deployment – delivery support feedback

Configuration Management is crucial in this project, as more ideas will be introduced and rejected and also requirements may change. It is important to track changes as they happen, the main method will be the use of a version control, Github, which will allow better collection of files and commits to changes. Developers using this tool can pull updates from the repositories, and create branches as needed to support bug fixes.

## **(4) Technical Process**

### **4.a Methods, Tools, and Techniques**

We will be using tools such as clubhouse, GitHub, and GitLab. Some techniques we will be using are working front end to back, and surveying our clients to ensure we are together and achieving what the client is looking for in our prototype. We will try to integrate the use of MongoDB if possible, to store and manage computer data. We would like to add a PayPal API to allow safe transactions.

## 4.b Software Documentation

Our group will be working consistently on the task assigned to us by the client over the next 6 weeks. In the process of doing so, it is important that we keep up on the documentation of our goals, steps completed, and coding processes. We will keep track of specific tasks through a website already mentioned called clubhouse.

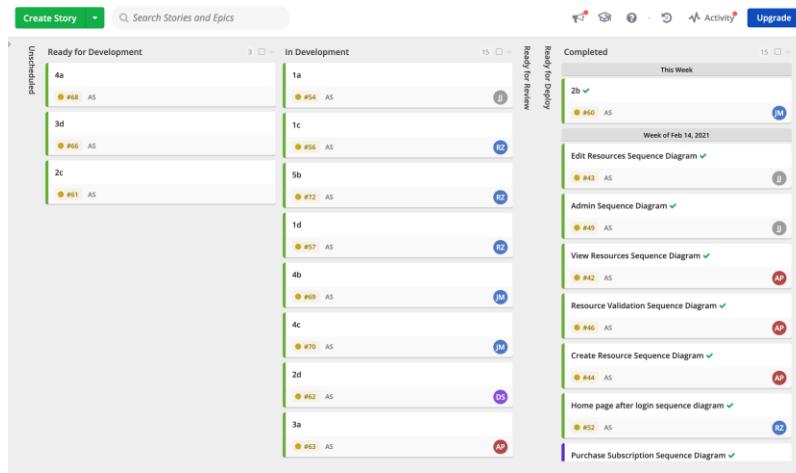


Figure X, Current clubhouse arrangement.

Through clubhouse, it will make it very easy to delegate tasks, and look back on tasks if need be. Also, we plan to efficiently use GitHub's branching capabilities to allow for us to keep track of, and version our code. We believe that in using these forms of documentation it will allow the group to efficiently work, and remain organized and updated to present to the client.

## 4.c Project Support Functions

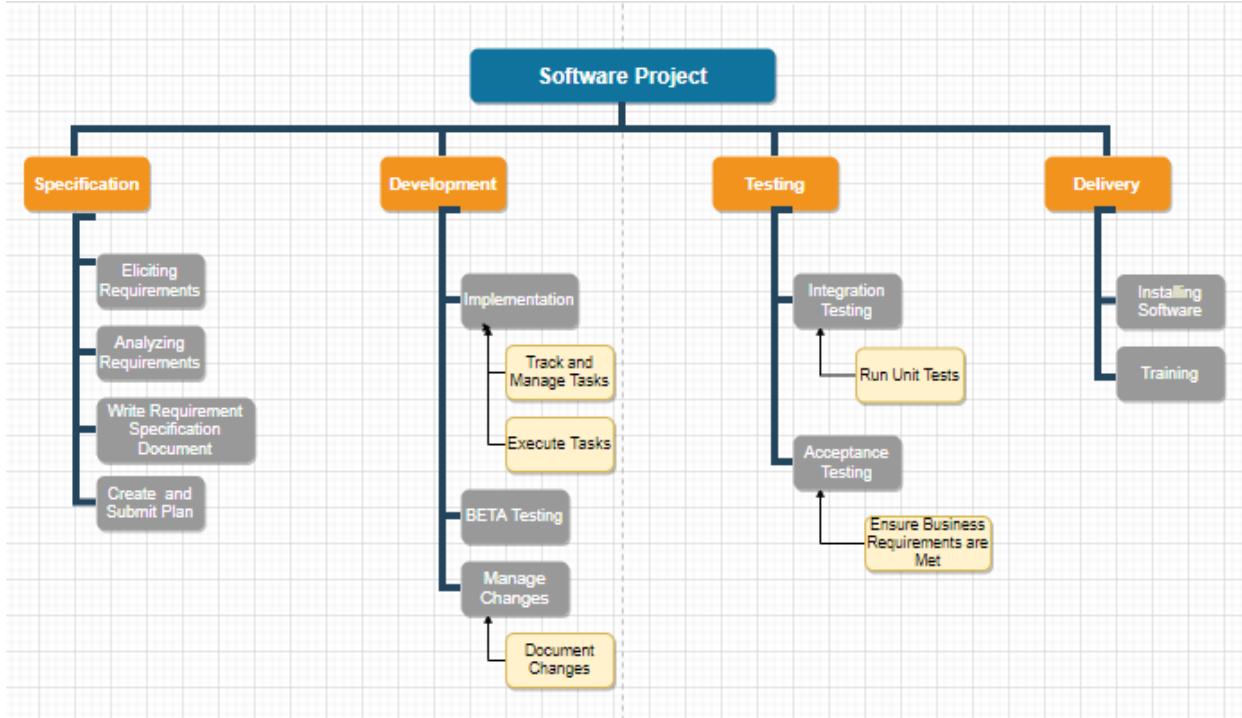
One project support function we have is Clubhouse which will help break down tasks into phases and keep organized. Another project support function will be checking up with the Professor

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who in this case is an expert to assist in guiding us in the right direction if we are stuck or in need for reassurance.

## **(5) Description of Work Packages**

### **5.a Work Breakdown Structure**



### 5.b Dependencies Between Tasks

Dependencies between tasks will occur while moving further into our project. Smaller parts of the project will not be integrated with each other until all are completed, then after integrating if editing is necessary it will be done. This is because we will be coding different parts of the project in unison and then adding them together using Github. We depend on having the work done in a timely manner and depend on the stability of our hardware and software involved in creating the website.