

Group Assignment 3: The Central Website & Tenants Management System

Vision Document

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1. Introduction

1.1. Purpose

The purpose of this vision document is to collect, analyze, and define high-level needs and features of the Golden Springs Realty LLC website and integrated IT system.

1.2. Scope

A new IT system to optimize internet and social media sales, analyze customer demand, and provide customers and employees with features they desire. We need to provide employees with a system that they can utilize not only to drive customer interest, but also correspond with current and potential customers as well. By doing so we seek to bolster sales numbers and increase customer satisfaction. In addition we badly need to provide potential customers with more convenient ways of creating appointments for home inspections as well as provide current customers with a much more convenient method of paying their rent.

We therefore propose the construction of a customized system that can be integrated and utilized alongside a company website that can be accessed via the internet from any platform.

2. Positioning

2.1. Business Opportunity

Golden Springs Realty LLC is a small housing agency located in West Philadelphia. The company is fairly small and therefore must rely on using the internet and its many housing/rental websites in order to generate interest and build its customer base. The company relies on its employees to post accurate and eye-catching information regarding the properties it is trying to rent online for potential tenants or buyers to see. Currently they don't have a central website and a tenants management system to support their business. After Analysis their business systemic problem and stakeholder, we have determined that there are eight goals that our stakeholder wants. For the company manager (Zhan Jin), he would like to pay efficient employees higher salary, solve tenant living problems and have enough housing resources. For the landlords, they want to rent their empty houses to earn more money. The

salesman (Yang & Alvin) want to let more people know property information online and achieve good sales performances. At last, tenants want to find a good house to live in and sign contracts more efficiently online. In order to achieve these goals, we listed out five major systemic problems that the company has and analyzed those problems. The first major problem would be taking a large amount of time to upload property information online. The second problem would be tenants cannot contact after sales employees in order to make their complaints. The third problem would be tenants are unable to pay their rent online. The fourth problem would be tenants grow frustrated from time constraints due to in person only interactions. And the last problem would be that the company spends lots of time posting property information on different websites and sales employees could be delayed in their responses. They hope to eliminate or mitigate all of these issues with the implementation of a website that not only the company will benefit from but also the customer.

2.2. Problem Statement

2.2.1. Central Website for Property Information

Element	Description
The problem of ...	It takes a lot of time to upload property information online. Because there isn't a central website that enables customers to view property information and also enables sales employees to quickly upload pictures and house information.
Affects ...	Customer acquisition subsystem [Actors:] Customers, Sales employees
The impact of which is ...	Customer cannot find the house information and sales employees will not have a good sales performance.
A successful solution would be ...	Build a central website that can allow customers to acquire property information and contact sales employees directly through the website.

2.2.2. Complaint System for Tenants

Element	Description
The problem of ...	Tenants cannot contact after sales employees in order to make their complaints. Because there isn't a system for customers where they can log in and make their complaint.
Affects ...	Maintenance subsystem [Actors:] Customer, After sales employees

The impact of which is ...	Tenants cannot find a way to make their complaint or request maintenance online.
A successful solution would be ...	Build an after sales maintenance subsystem, in order to allow tenants to make their complaint or request maintenance online through a resident portal.

2.2.3. Online Rent Paying System for Tenants

Element	Description
The problem of ...	Tenants are unable to pay their rent online. Because there isn't a system that enables customers to pay the rent online.
Affects ...	Customer communications subsystem [Actors:] Customer, Sales employees
The impact of which is ...	Tenants cannot find a way to pay their rent online instead of handing over monthly checks.
A successful solution would be ...	Build an after sales customer communications subsystem, in order to allow tenants to pay rent online through resident portal.

2.2.4. Online Contract Signing System for Tentans

Element	Description
The problem of ...	Tenants grow frustrated from time constraints. Because potential tenants need to sign contracts in person.
Affects ...	Secure signing subsystem [Actor:] Customer, Sales employees
The impact of which is ...	Potential tenants refuse to sign contracts which results in the loss of company revenue.
A successful solution would be ...	Allow potential tenants sign contracts online.

2.2.5. Online Chatting System between Tenants and Sales

Element	Description
The problem of ...	Salesmen spend lots of time posting property

	information on different websites and can be delayed in their response.
Affects ...	Information posting subsystem [Actors:] Customers, Sales employees
The impact of which is ...	Company wastes time, money, and effort on gaining new customers and training new employees.
A successful solution would be ...	Build a central website that will allow sales employees to post property information online, and allow customers to connect sales employees directly through the website.

2.3. Product Position Statement

For	Golden Springs Realty LLC managers, Sales and Tenants
Who	need a central website with property information and a tenants management system
The Central Website & Tenants Management System	is a almighty system with central website can connect between tenants and sales, manager or after-sales staffs.
That	will allow the dealership to maximize sales and maximize tenants' satisfaction.
Unlike	typical tenants management system
Our Product	uses almighty capabilities to manage tenants, sales, manager and after-sales staffs, a central website to display the property information, to ensure that sales can post property information easily and tenants can easy to connect to the sales

3. Stakeholder and User Descriptions

3.1. Market Demographics

The key market demographics that drive Golden Springs Realty LLC are that the market is highly competitive, and not only is the housing market extremely competitive, but it has also been on the decline for a very long time due to the current economic ecosystem in which we live. For this reason it is imperative for any company within the real estate

world to keep up to date with the latest systems and methods of not only capturing new customers, but also retaining current ones. Golden Springs Realty LLC seeks to serve a medium size customer base in the Philadelphia area. Currently the company does most of its business and customer acquisition through third party websites that can be accessed by everyone, including their competitors. As a result of this there is little differentiation between Golden Springs and these other companies. Analyzing the housing market and its dips and rises as well as the customer base is key to the company's survival as a real estate company. In order for Golden Springs to flourish within the real estate realm, it is imperative that they utilize this analysis to target customers with effective promotions and housing information that these customer seek.

Golden Springs Realty needs to rectify this problem as soon as possible with the implementation of a website and system that the company and its customers can utilize in order to do things such as pay their rent, advertise property, and handle contracts remotely as well as securely. By implementing this system, we seek to not only bolster Golden Springs' reputation with its current customers, but also grow the company's reputation throughout the housing market.

3.2. Stakeholder Summary

Name	Represents	Role
Business Manager/Owner	Golden Springs Realty LLC (the client)	Determines project budget, system feature priorities, go/no-go decision. Sets budget for promotions, business mgt.
Sales Representatives	Golden Springs Realty LLC Real Estate Management	Report to Business Manager. Post property information provided by the business manager online in order to arrange home inspections and rental and purchase contract signing appointments with customers
Potential Customer	Self	Request property information (pricing, spec., availability). Arrange home inspections. Negotiate pricing and finance with sales rep. Complete purchase, depending on property spec. & availability.

3.3. Stakeholder Profiles

Representative	The Business Owner
Description	Owns the business.
Type	The business owner runs the business. Not very technical, but competent.
Responsibilities	Is responsible for business management and financial accounts review. Has the final say over pricing, promotions, and property decisions. He is consulted by the sales representatives when contracts require approval (or fast payment).
Success Criteria	Maximum profit, with low turnover rate and high customer acquisition rates The business owner receives all business profits.
Involvement	Has the final say over project go/no-go.
Deliverables	The system should compensate for occasional knowledge-deficiencies or poor judgement of business managers.
Comments / Issues	The business needs a cost-effective system – it must pay for itself within 3 years, then continue to function with little modification.
Representative	Sales Representatives
Description	Employees
Type	Most sales reps are technically savvy as they are required to post property information online. But they tend to rush everything, don't plan ahead (don't want to lose a sale), and don't record anything unless forced to do so.

Responsibilities	Renting property to customers who contact them online as well as by phone, or who are referred via other customers. Arranging home inspections, providing customers with rental pricing. Closing the sale, including arranging contract signing appointments.
Success Criteria	Every sales prospect is turned into a sale. Sales reps are paid by commission based on their monthly performance.
Involvement	Sales reps will use the system to schedule home inspections, contract signings, post property information, mark properties as sold (or pending sale), and to correspond with current and potential customers.
Deliverables	System must be relatively transparent (embedded in user processes).
Comments / Issues	Sales reps often take shortcuts to close a sale. Including taking a customer out to see a home without telling anyone, or promising deals they can't fulfill.
Representative	Customers
Description	Customer
Type	Most customers who are looking for property to rent are technically savvy enough to navigate most websites in order to find information about property they are interested in.
Responsibilities	Customers are responsible for finding property information they are interested in online.
Success Criteria	Customers can acquire good contracts at fair prices by going through Golden Springs
Involvement	Customers will use the system to schedule home inspections, and contract signings, and to report maintenance issues.

Deliverables	System must be relatively transparent (embedded in user processes) in order to increase ease of use for customers.
Comments / Issues	Customers are always seeking the best deals and will frequent a number of websites in order to obtain it.

3.4. User Summary

Name	Description	Responsibilities	Stakeholder
Business Manager	Primary end user of the system	Needs to use the system to check invoices to be paid.	Self
Sales Representatives	End-user of the system	Follow sales leads Schedule home inspections Schedule contract signings Mark properties as sold (or pending)	Self
Potential Customer	System information user	Consumes system information via internet property listings (price, availability).	Self

3.5. User Environment

- ***How many people are involved in completing the task? Is this changing?***

At present the only people involved in completing the task of posting property information online once it is received are the sales representatives. This will not change but the way the sales representatives post this information will once the system is put in place.

- ***How long is a task cycle? How much time do users spend in each activity? Is this changing?***

Currently customers and sales representatives are required to take a substantial amount of time out of their days in order to complete home inspections as well as contract signings. However, once the system is put in place this should alleviate some of that time as it will be easier to communicate with sales representatives and sign contracts online rather than in person.

- ***What unique environmental constraints affect the project? For example, do users require mobile devices, work outdoors, or work during flights?***

Users will be able to access the system from any platform as it is a website. Therefore there are no constraints as to when users will be able to access the system unless it is undergoing scheduled maintenance or suffering from technical issues

- ***Which system platforms are in use today? Are there future platforms planned?***

Currently the company has no platforms in use today. Future platforms should be universally compatible with the system.

- ***What other applications are in use? Does your application need to integrate with them?***

Due to the absence of any other applications, there are no integration issues we need to worry about.

3.6. User Profiles

See Stakeholder Profiles

3.7. Key Stakeholder or User Needs

Need	Priority	Concerns	Current solution	Proposed solution
Business owner	1	Need to maximize profit	Relies on salesmen to generate sales by utilizing third party websites	Provide salesmen with a stable website in which they are able to post property information
Business Owner	1	Wants to spend as little as possible on advertising	Salesmen use third party websites in order to post property information	Need to develop a system in which salesmen can post property information quickly and reliably
Sales Representatives	1	Need to generate more sales leads in order to maximize salary	Salesmen rely on internet posts to attract customers	Set up company website that can be advertised in order to generate more customer interest
Sales Representatives	1	Need to understand what promotions attract customers & make money	Trial and error	An analysis of sales increase vs. sales margin would allow manager to predict success of promotions
Customers	1	Want instant rental pricing & information	Searching for posts on third party websites	Ability to search property information via company website
Customers	1	Want convenience in contract signing and contacting sales representatives	Contact salesmen via third party website information and schedule appointments	Contact salesmen via company website and sign contracts online securely

3.8. Alternatives and Competition

3.8.1. Continue the Status Quo

By continuing the status quo the company could continue to be profitable though most competitors are utilizing their own websites rather than relying on third party websites for their services. This approach does not provide any apparent advantages, and comes with a number of disadvantages.

3.8.2. Buying out another competitor's system

By buying out another competitor and in turn inheriting their system the company stands to eliminate two problems at once. However, doing so will generally cost much more than paying developers to construct a new website and IT system that can integrate with the website in order to perform the same functions.

3.8.3. Develop a customized website with an IT system

By creating a website with an integrated IT system the company serves to create their own website that they can use to advertise property as well as offer customers features that they desire which should serve to keep them in line with their competitors, and maybe even push them forward past a few.

3.8.4. Evaluation of Options

MAJOR GOALS	Business Goal #1 Maximize profits	Business Goal #2 Minimize vacant property	Business Goal #3 Increase customer count	Business Goal #4 Improve management understanding of business drivers	Business Goal #5 Increase company reputation	Overall

Maintain Status Quo	3	4	5	3	4	19
Purchase Competitor System	1	8	8	6	8	31
Develop Custom System	5	8	8	9	8	38

MAJOR GOALS	Problem #1 Customer acquisition	Problem #2 Customer/Salesman correspondence	Problem #3 Appointment complications	Problem #4 Salesmen efficiency	Problem #5 Keep up with competition	Overall
Maintain Status Quo	3	3	2	3	3	14
Purchase Competitor System	7	6	6	6	9	34
Develop Custom System	7	9	8	8	7	41

Alternatives	Support for Business Goals	Problems Solved (Weighted double)	Total Score
Maintain Status Quo	19	28	47
Purchase Competitor	31	68	99

Develop Custom System	38	82	120
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3.8.5. Preferred Option

The preferred option is a customized system that can be built to incorporate each of the company's stakeholders needs as well as be updated in the future to accommodate unforeseen needs that come along with growing as a company. The system should combine with the website in order to provide better service not only to future customers but current customers as well. It will provide an area where potential customers can view property information as well as contact a sales representative immediately via email telephone or live chat. The system will also offer current tenants a way to pay their bills conveniently and sign contracts online without the hassle of being available for appointments.

4. Product Overview

4.1. Product Perspective

The system will be integrated with the current payroll & accounting, third party website and sales management system, and will be tied into the connection between after-sales staffs and tentans. The software system will be distributed across various users and hardware as shown in Figure 4.1.1, the System Architecture Overview.

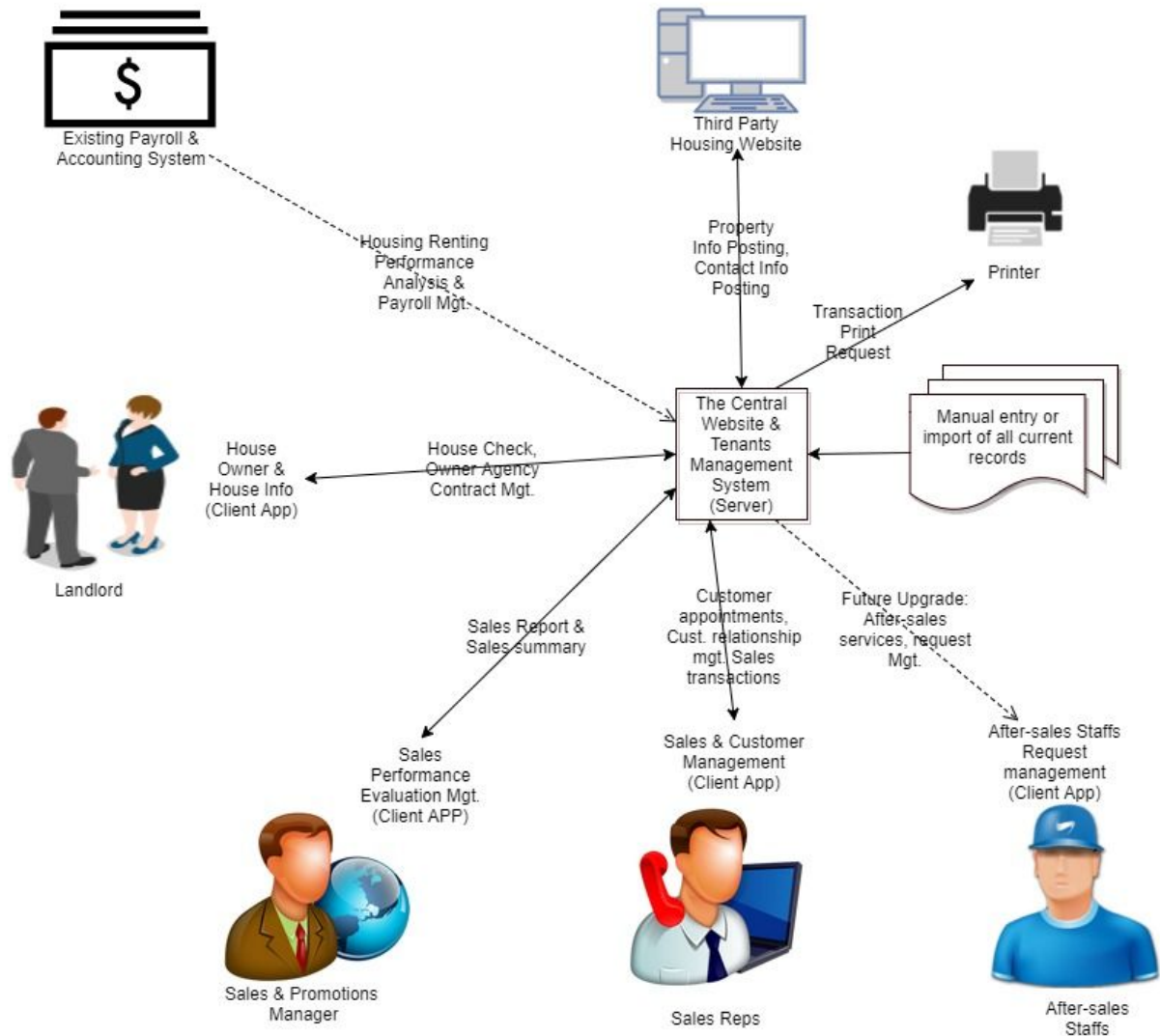


Figure 4.1.1 System Architecture Overview

4.2. Summary of Capabilities

The system will complement the existing sales and accounting system, which will be used for all kind of financial transaction (online payment, face-to-face payment). It will allow manager and sales people to track and contact tenants or potential customer. It will allow tenants directly contact the after-sales staffs to post a maintenance request. It will has a central website to allow sales people to post the house information and contact information, and tenants can search suitable house online, as shown in Figure 4.2.2, the High-Level Business Use-Case Overview.

4.3. Assumptions and Dependencies

4.3.1. Assumptions

The central website and tenants management system will require a web interface, that collects tenants lead information in a javascript form. The system will need to be accessible from the major internet browsers by the tenants. Such as IE, Google Chrome, FireFox or Safari.

Every sales needs a separate username and user password to login the system. In order to track sales performance and their sales report. Also it will allow sales to easily follow-up their potential tenants.

4.3.2. Dependencies

Based on the house rent or sales performance will be recorded using the tenants management system, but it will be processed using by using the current payroll and accounting system. The two systems need to exchange and coordinate transaction data. It may be possible to automate sales performance rate modification when the tenants system finalizes the sales processing.

House data will be imported from the house agency system. The tenants system must be designed to use a connection to receive the house data from landlord.

4.4. Cost and Pricing

Central website operation and Tenants data management costs are expected to be negligible, when using this system.

5. Product Features

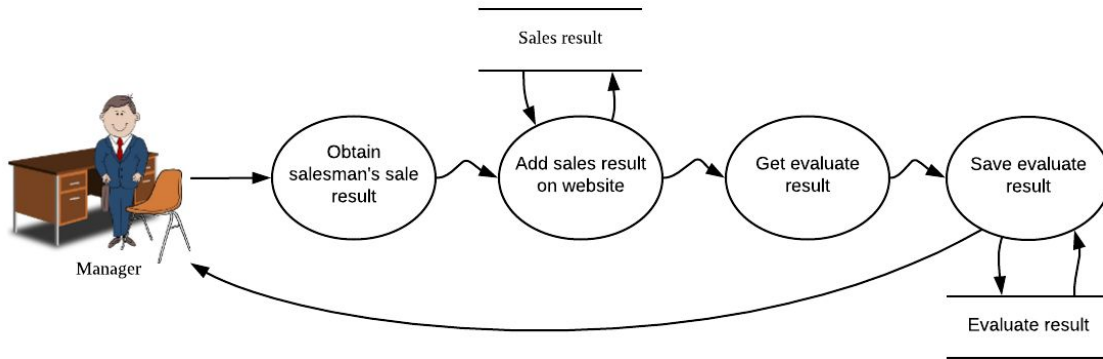
The system will implement the following high-level features:

- Evaluating salesman based on sales result
- House information released by landlord
- House information released by salesman
- Internal message post and receive
- Check house online depends on images and videos
- Signing contract online
- Continuing service check and communication

These result in distinct business use-cases, shown below.

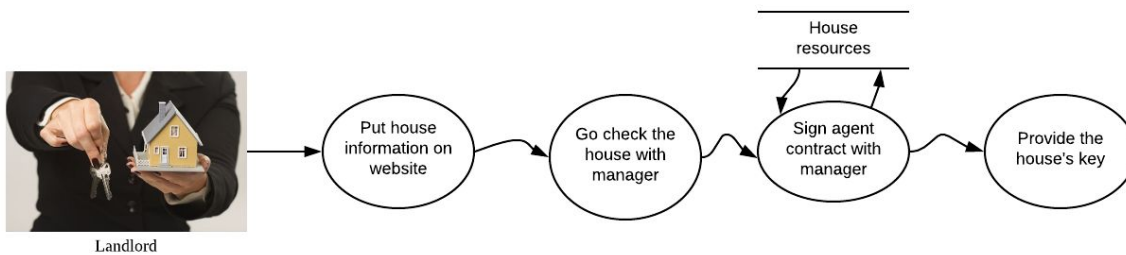
5.1. Salesman evaluating system based on sales result

The manager can get the sales result from salesman, and add sales result on website. Then the system will evaluate sales result of everyone and return the result to manager. Then save the result online.



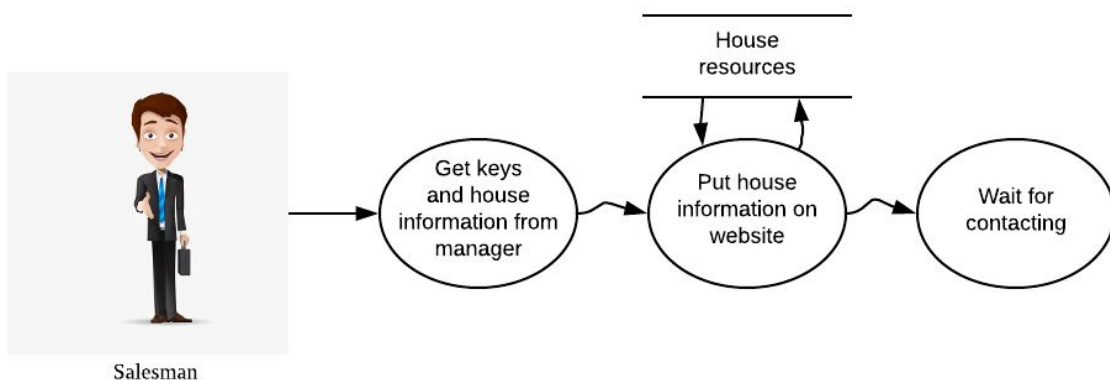
5.2. House information released by landlord

Landlord can put his house information on the website, then wait for manager contact him. After contacting, manager will check the house with landlord. If the house is good, manager will sign contract with landlord and get the house key.



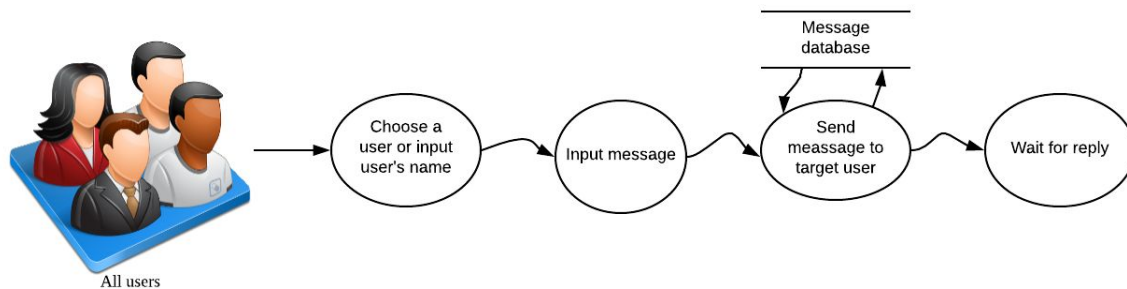
5.3. House information released by salesman

After salesman get the key and the house information, he can put the house information on the website, then wait for tenant's contacting.



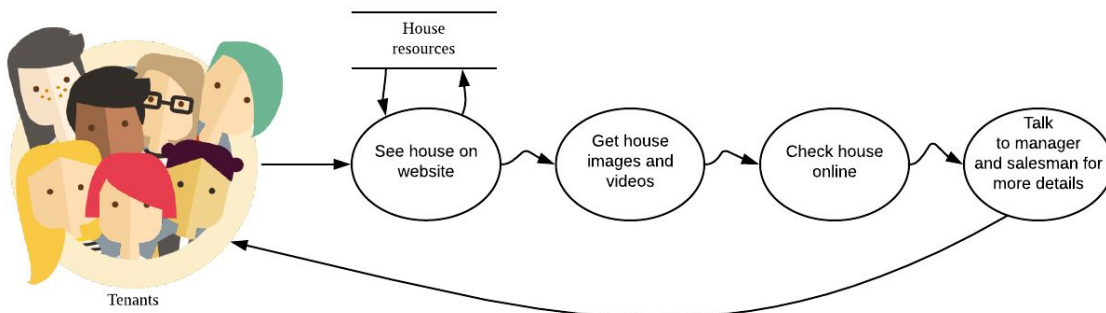
5.4. Internal message

If any users have any problem when using the website, he/she can send message directly to target user, and wait for the reply.



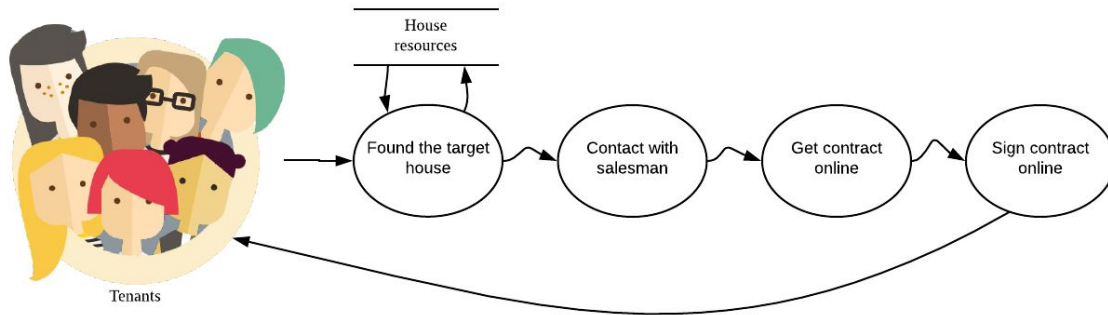
5.5. Check house online depends on images and videos

If a tenant cannot check the target house offline, he can choose search house and check the house online through house's images and videos. If the tenant has any question, he can talk to manager or salesman for more details.



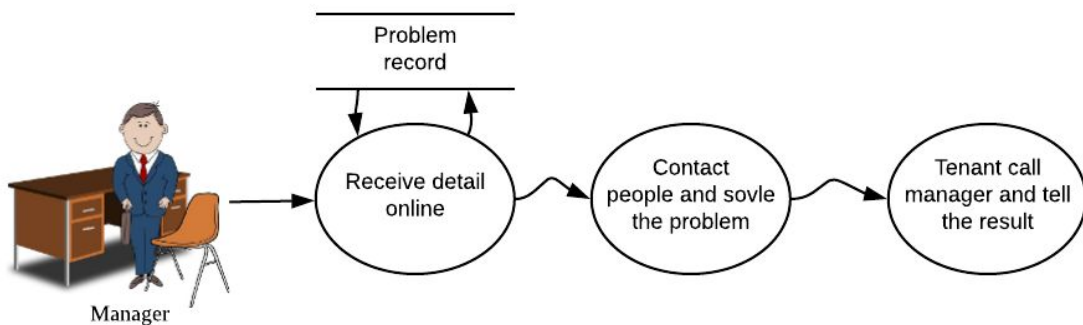
5.6. Signing contract online

If tenant cannot sign contract offline, he can choose to sign contract online. After he finds the target house, he could contact with salesman and get contract online. If the contract is good, he can sign the contract and get it online.



5.7. Continuing service check and communication

Manager can provide continuing service through the website. He can receive the problem detail online. Depends on the type of problem, he can contact different people to solve the problem. If the problem is solved, tenant will call manager and tell him the result.



6. System Requirements and Constraints

6.1. Applicable Standards

- The deliverable system will be able work on different computer (laptop & mobile) environments (Windows, UNIX, iOS, Android)

6.2. System Requirements

	Windows requirements	Mac requirements	Linux requirements

Operating system	Windows 7 or later	Mac OS X 10.9.x or later	64-bit Ubuntu 12.04+, Debian 8+, OpenSuSE 12.2++, or Fedora Linux 17
Processor	Intel Pentium 4 or later	Intel	Intel Pentium 3 / Athlon 64 or later
Memory	2 GB minimum, 4 GB recommended		
Screen resolution	1280x1024 or larger		
Application window size	1024x680 or larger		
Internet connection	Required		

6.3. Licensing, Security, and Installation

Various user types will be assigned individual login and access rights. Their use of the system will be traced via a security audit function.

System access relies on a per user license for the Oracle Database Management System software.

6.4. Performance Requirements

- The deliverable system will be able to handle sales result evaluate system based on the sales result.
- The deliverable system data will be secured from unauthorized access
- The deliverable system will have the ability to identify unprocessed events
- The deliverable system's requests will be backed up daily
- The deliverable system will be able to change to adapt with additional domain problems
- The deliverable system will be able to detect and fix defects

6.5. Constraints

N/A.

6.6. Quality Ranges

N/A.

7. Precedence and Priority

7.1. Feature Prioritization Analysis

Feature	Status	Priority	Effort	Risk	Stability	Target Release
F1	Approved	Important	Medium	Low	High	1.0
F2	Approved	Critical	High	Low	High	1.0
F3	Approved	Critical	High	Low	Medium	1.0
F4	Approved	Useful	Low	Low	Medium	1.1
F5	Approved	Important	Medium	Low	High	1.1
F6	Approved	Useful	Medium	Medium	Medium	1.2
F7	Approved	Important	Medium	Low	High	1.3

7.2. Release Plan

This section takes the feature definitions from section 5 and combines them with the release priorities determined in section 7.1 to produce a release plan for the IT system product.

Feature	Description	Release
F1 Evaluating salesman based on sales result	The manager can get the sales result from salesman, and add sales result on website. Then the system will evaluate sales result of everyone and return the result to manager. Then save the result online.	1.0
F2 House information released by landlord	Landlord can put his house information on the website, then wait for manager contact him. After contacting, manager will check the house with landlord. If the house is good, manager will sign contract with landlord and get the house key.	1.0

F3 House information released by salesman	After salesman get the key and the house information, he can put the house information on the website, then wait for tenant's contacting.	1.0
F4 Internal message post and receive	If any users have any problem when using the website, he/she can send message directly to target user, and wait for the reply.	1.1
F5 Check house online depends on images and videos	If a tenant cannot check the target house offline, he can choose search house and check the house online through house's images and videos. If the tenant has any question, he can talk to manager or salesman for more details.	1.1
F6 Signing contract online	If tenant cannot sign contract offline, he can choose to sign contract online. After he finds the target house, he could contact with salesman and get contract online. If the contract is good, he can sign the contract and get it online.	1.2
F7 Continuing service check and communication	Manager can provide continuing service through the website. He can receive the problem detail online. Depends on the type of problem, he can contact different people to solve the problem. If the problem is solved, tenant will call manager and tell him the result.	1.3