

## Vision Document REB+ (Real-state broker plus)

### 1. Introduction

REB+ is a province-wide property listing website app that aims to provide homebuyers with an efficient and user-friendly platform to find their dream homes. The application offers a comprehensive set of search functionalities, including Map Search, Search by ID number, and Advanced search options. REB+ also facilitates communication between homebuyers and real-estate brokers, enabling them to schedule property visits and make informed purchasing decisions by using integrated mortgage value calculator to estimate monthly payment for the property.

#### 1.1 References

- a. Template of the document referred from the source:  
<https://docs.google.com/document/d/17i4QFEry1qltFMGj0U51MPNoAiqOLnyTWxERHqWDtLw/edit>
- b. Additional reference about Rational Unified Process  
<https://www.toolshero.com/information-technology/rational-unified-process-rup/>

### 2. Positioning

#### 2.1. Problem Statement

The problem of	The problem of inefficient property search and limited communication channels affects homebuyers, real-estate brokers, and system administrators involved in the real estate market. The current process lacks a centralized database, advanced search options, and effective communication tools.
Affects	Homebuyers, real-estate brokers, and system administrators.
The impact of which is	Homebuyers experience a time-consuming and frustrating property search process, leading to delayed decision-making and missed opportunities. Real-estate brokers face challenges in effectively managing and marketing their listings, resulting in reduced visibility and limited buyer engagement. System administrators struggle to manage brokers and maintain an accurate and up-to-date property database, affecting the overall efficiency of the real estate market.
A successful solution would be	A successful solution would be the development of a comprehensive web application that streamlines the property search process for homebuyers, facilitates effective communication between homebuyers and brokers, ensures accurate and up-to-date property information, increases market reach for brokers, and enables efficient administration for system administrators.

#### 2.2. Product Position Statement

For	For homebuyers, real-estate brokers, and system administrators
Who	who require an efficient and user-friendly property search and management platform.

REB+	Is a Software Product ( Web Application)
That	Provides a comprehensive set of search functionalities and communication tools for homebuyers and property Managers ( Real Estate Brokers).
Unlike	The existing property search systems lack flexible search functionalities and effective communication medium, failing to cater to the specific needs of homebuyers.
Our product	Helps all the stakeholders with its centralized database, advanced search options, effective communication channels, and comprehensive administrative capabilities

### 3. Stakeholder Descriptions

#### 3.1. Stakeholder Summary

Name	Description	Responsibilities
Developers	Developers are professionals with expertise in software development and programming. They are responsible for designing, building, and maintaining the technical infrastructure.	Designing, developing, and maintaining the technical infrastructure of the REB+ system while ensuring performance, security, and implementing new features based on stakeholder requirements.
Marketing Team	Professionals skilled in marketing and communication strategies. They are responsible for promoting the platform to attract users, increase engagement, and drive adoption.	Creating marketing strategies, developing compelling content, managing online presence, analyzing metrics, gathering user feedback, and collaborating with developers to promote the REB+ platform effectively.
Property Owners	Individuals or organizations who own the properties listed on the REB+ platform.	Provide accurate and up-to-date information about their properties to the real-estate brokers. Collaborate with brokers to showcase their properties effectively.
Mortgage Lenders	Financial institutions or lenders offering mortgage services to homebuyers.	Provide information on mortgage products and options available to homebuyers. Facilitate the mortgage application process and ensure timely approvals.
Sponsors	Individuals or organizations providing financial support and resources for the development and implementation of the REB+ project.	Provide funding and resources necessary for the project's success. Support the project team in achieving the project objectives and deliverables. Review and approve project plans, milestones, and budget allocations.

#### 3.2. User Summary

Name	Description	Responsibilities	Stakeholder
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Homebuyers	Individuals searching for properties to purchase.	Logins to the system, search for different properties from a wide variety of search criterias and be able to have prolific conversation with Real-Estate Brokers	Self Represented
Real-estate Brokers	Professionals who manage property listings and facilitate property transactions.	Showcase property listings, engage with potential buyers, provide property information, negotiate deals, and ensure successful property transactions.	Self Represented
System Administrators	Professional Individuals responsible for managing and maintaining the REB+ system.	Add or remove brokers from the system, oversee the functionality of the platform, ensure data accuracy, and manage administrative tasks related to brokers and property listings.	Self Represented

### 3.3. User Environment

**Number of people involved:** Various homebuyers, real-estate brokers, system administrators, property owners, mortgage lenders, legal professionals, and financial advisors.

**Time spent in each activity:** Homebuyers may spend varying amounts of time searching for properties, reviewing listings, communicating with brokers, and visiting properties. Real-estate brokers dedicate time to managing and updating property listings, communicating with homebuyers, scheduling property visits, and negotiating deals. System administrators allocate time to oversee the system functionality, manage user accounts, update property information, and handle administrative tasks.

**Environmental constraints:** The system should be accessible both on desktop/laptop computers. Users may have different internet connection speeds, so the platform should be designed to perform well under various network conditions.

**System platforms in use:** The web application should be compatible with popular web browsers (Chrome, Firefox, Safari, etc.) to ensure broad accessibility.

#### Integration with other applications:

The platform may need to integrate with external systems or APIs for data synchronization, such as accessing property information from third-party databases or connecting to mortgage lenders' systems for financing options.

### 3.4 Key Stakeholder or User Needs

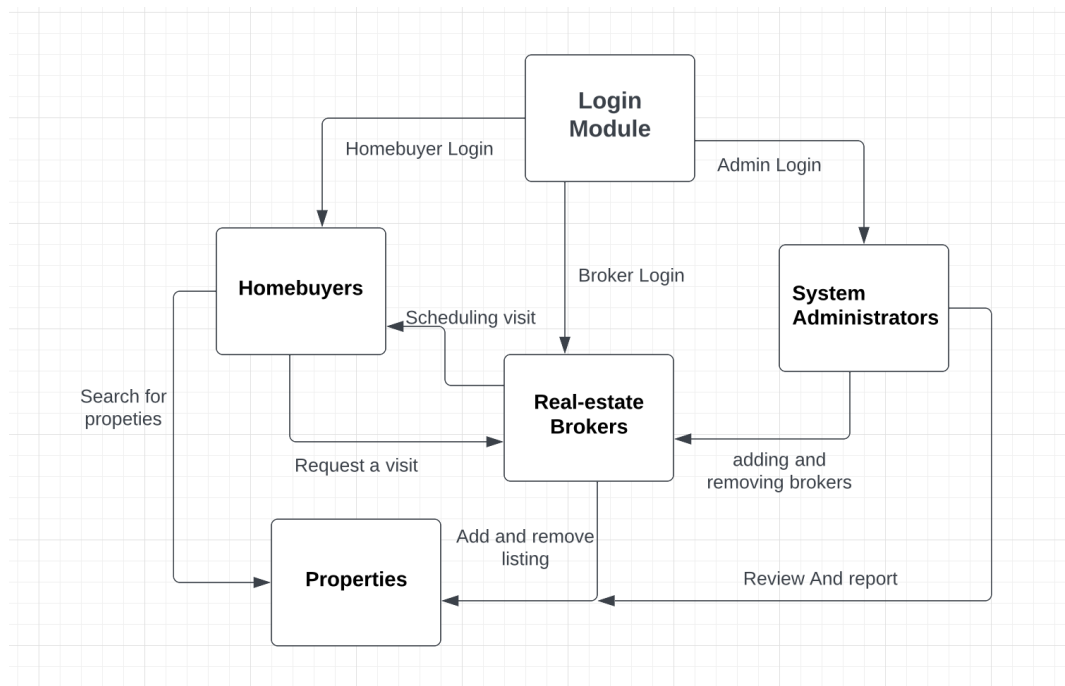
Need	Priority	Concerns	Current Solution	Proposed Solutions
Difficulty in finding suitable properties	High	Limited access to listings and information, lack of efficient and flexible search tools	No current system; manual search process	- Access to a centralized and comprehensive database of property listings - Advanced search functionalities with filters - User-friendly interfaces for efficient property search
Ineffective communication between	Medium	Limited communication channels, delayed responses, difficulties in	Communication happens through phone calls,	- Communication tools within the platform for seamless interaction - Prompt responses to inquiries and

homebuyers and brokers		scheduling and inquiries	emails, or in-person visits	property visit requests - Easy scheduling of property visits and efficient coordination
Difficulty in estimating monthly payment for a property	High	Lack of tools for accurate estimation	No current system	Integration of a calculator feature to estimate monthly payments based on property price and financing options

## 4. Product Overview

### 4.1.Product Perspective

The REB+ (Real-estate broker plus) system is an independent and self-contained product that serves as a province-wide property listing website app. It operates as a standalone platform.



### 4.2. Assumptions and Dependencies

Assumptions	Dependencies
The REB + application is designed for desktop and laptop devices, and it does not support mobile platforms.	The successful operation of the REB + application relies on the availability of desktops or laptops for users.
Real Estate Broker cannot directly publish property listings on the platform without approval from admin aur automated checks	Content publication and approval are dependent on system administrators who review and authorize property listings submitted by Real Estate Brokers.
Homebuyers are required to view all property details before contacting Brokers and fill out a	The system needs to provide the capability for homebuyers to create and manage their profiles, including the ability to provide

profile form on the website to legitimize themselves as a real person.	personal information, validate their identity, and update their profile as necessary.
Users have a stable internet connection to ensure uninterrupted usage of the REB+ application.	Users must have a stable high-speed internet connection to access and utilize the features of the REB + application effectively.
The REB + application is expected to be accessed through commonly used web browsers such as Chrome, Edge, Safari, or Firefox.	The application is designed to run on Windows or Mac OS environments.

## 5. Product Features

**1. Property Search:** Description: Homebuyers can perform advanced property searches based on various criteria such as price range, number of rooms, dimensions, time on the market, building type, and year built.

*Usability Issue:* The search functionality should provide intuitive filters and options to make it easy for homebuyers to find properties that meet their specific requirements.

**2. Map Search:** Description: Homebuyers can search for properties using an interactive map interface, allowing them to visually explore and locate properties in their desired areas.

*Usability Issue:* The map search should provide zoom and navigation controls, property markers, and clear property information to enhance the user experience.

**3. Property Details:-** Detailed property information, including descriptions, images, floor plans, and virtual tours, are provided to give homebuyers a comprehensive understanding of the property.

*Usability Issue:* The property details page should present information in a well-structured and visually appealing manner, making it easy for homebuyers to review and evaluate properties.

**4. Broker Contact and Appointment Request:** Homebuyers can contact the respective broker managing a property and request property visits or more information through the platform.

**5. Mortgage Calculator:** Homebuyers can utilize a mortgage calculator to estimate the monthly payment for a property of their interest based on the price, down payment, interest rate, and loan term.

- *Usability Issue:* The mortgage calculator should have clear input fields, accurate calculations, and a user-friendly interface to assist homebuyers in making informed financial decisions.

**6. Broker Listings Management:** Brokers can manage their property listings, including adding new properties, editing existing ones, and removing properties that are no longer available..

**7. System Administration:** Description: System administrators have administrative control over the REB+ system, including managing user accounts, verifying brokers, and ensuring the overall functionality and security of the platform.

- *Usability Issue:* The system administration features should provide a comprehensive and secure interface for administrators to manage users, monitor system activities, and perform necessary administrative tasks.

**8. Property Comparison:** Description: Homebuyers can compare multiple properties side by side to evaluate their features, specifications, and pricing.

- *Usability Issue:* The property comparison feature should enable homebuyers to select and view key property details in a structured and visually comparative manner, facilitating informed decision-making.

**9. Broker Profiles and Ratings:** Description: Brokers have individual profiles showcasing their expertise, experience, and listings. Homebuyers can view broker profiles and ratings to evaluate their credibility and reputation.

- Usability Issue: The broker profiles and ratings feature should provide comprehensive broker information, including contact details, professional background, and client reviews, to help homebuyers in selecting trustworthy and reliable brokers.

## 6. Other Product Requirements

### 6.1 System Requirements:

- Description: The system must run on Windows or Mac OS.
- Priority: Critical      - Effort: Low      - Risk: Low      - Stability: High

### 6.2 Hardware Requirements:

- Description: The desktop or laptop must have at least 4GB of RAM. The application does not support mobile devices.
- Priority: Critical      - Effort: Low      - Risk: Low      - Stability: High

### 6.3 Security Requirements:

- Description: The system should implement robust security measures to protect user data and ensure the confidentiality, integrity, and availability of information. This includes encryption of sensitive data, secure user authentication and authorization mechanisms, and regular security audits.
- Priority: Critical      - Effort: High      - Risk: High      - Stability: High

### 6.4 Design Requirements:

- Description: The application is built using PHP MVC architecture with a MYSQL database structure.
- Priority: Critical      - Effort: Team Months      - Risk: High      - Stability: High

### 6.5 Documentation Requirements:

- Description: The system requires documentation to provide clear instructions and guidance to the main user profiles, enhancing their understanding of the platform's functionalities and maximizing their usage.
- Priority: High      - Effort: Low      - Risk: Low      - Stability: High

### 6.6 Usability Requirements:

- Description: The system should prioritize usability to ensure a user-friendly and intuitive experience for all user profiles. It should have clear navigation, intuitive interface design, and provide helpful prompts and guidance throughout the user journey.
- Priority: High      - Effort: Low      - Risk: Low      - Stability: High

### 6.7 Performance:

**Response Time:** Fast response times within 2 seconds for optimal user experience.

**Throughput:** Ability to handle at least 100 concurrent requests without significant degradation in performance.

**Scalability:** System should scale to support a user base of 10,000 active users without compromising performance.

**Resource Utilization:** System should utilize CPU and memory resources efficiently, aiming for below 70% utilization.

## Appendix

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Fig: Time taken to complete each section