

DEVELOPMENT PLAN

MLS System for Philippine Real Estate Board Inc. (PAREB)

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PROJECT TITLE

Multiple Listing Service for Real Estate Practitioners of Philippine Associations of Real Estate Board Inc. (PAREB)

OBJECTIVE:

- To establish an online system dedicated to supporting all PAREB members, ensuring the swift and efficient sale of their property listings
- To develop and implement an income-generating online system tailored for PAREB, aiming to diversify revenue streams and enhance financial sustainability for the organization.

REQUIREMENTS:

- Webs Server / Web Hosting
 - PHP Hosting Server with MySQL
 - A web hosting that accommodates 2 level directory structure for subdomains
- Domain Name *e.g.* www.google.com

SPECIFICATION

- **Account Administration**

The management and maintenance of user accounts within MLS System. This involves tasks related to creating, modifying, and deleting user accounts, as well as configuring various settings associated with those accounts. Account administration is typically performed by system administrators or users with administrative privileges.

These privileges are granted to the Administrator:

- User Account Creation
- User Permissions
- Account Modification
- Account Deactivation or Deletion
- Account Auditing and Monitoring
 - Users, Subscriptions, Transactions, Property Listing Posting, Privileges

- **System Settings**

The administrator possesses the authority to modify all system settings, encompassing a wide range of controls and configurations within the system:

- Default Account Privileges
- Enabling/Disabling KYC Verification
- Enabling/Disabling Premium
- Sets the email address to be used for email notifications

- **Account Premiums Administration**

Premium offer additional features, services, or benefits beyond those available with standard accounts. The administration of premium accounts involves tasks such as:

- **Creation, Modifying and Deleting Premium**
- **Subscription Management** - Handling the registration, renewal, and cancellation of premium subscriptions
- **Feature Configuration** - Managing the activation or deactivation of premium features for individual accounts

- **Billing and Payments** - Handling payment processing, invoicing, and managing billing information for premium accounts
- **PayPal Integration** - PayPal integration offers businesses a convenient and secure way to accept payments online, helping to streamline checkout processes and improve the overall customer experience.

- **KYC Management**

Collecting and verifying information about customers to establish their identity. This includes personal details such as name, address, date of birth, and government-issued identification documents.

- Verify/Deny submitted Identification documents

- **Chat Messaging**

Exchange of text-based messages between two or more users in real-time or near real-time. This form of communication enables individuals to engage in conversations, share information, and communicate ideas asynchronously.

- Users may receive notifications when new messages are received.
- Can send a text, image and link based message

- **Property Listings Management**

The MLS System provides the process of organizing, maintaining, and updating information about available properties. This includes residential, commercial, and industrial properties that are listed for sale, rent, or lease.

- Listing Creation
- Data Entry and Maintenance
- Categorization and Tagging
- Analytics and Reporting
- Strategically determine advertising placement (MLS or Public Website)
- Scoring a property based on the fields

- **Multiple Listing Service Platform**

MLS (Multiple Listing Service) is a centralized private database that can be utilized by registered account, to efficiently share detailed information about properties for sale or rent. It serves as a collaborative platform, enabling industry members to list properties, access comprehensive data on market inventory.

- **Comparative Analysis Table**

The MLS System provides comparative analysis table, which offer a structured presentation of data, aiding Real Estate Brokers in assessing and comparing different properties they are considering offering to their clients. By presenting key information side by side, such as listing prices, square footage, number of bedrooms and bathrooms, neighborhood amenities, and other important factors, Real Estate Brokers can make informed decisions about which properties best meet their clients' needs and preferences. These tables enable the comparison of multiple properties or real estate listings across various attributes or factors, with columns representing different properties and rows representing criteria such as price, location, size, features, amenities, and other relevant details.

- Comparative analysis table can be shared with durations
- And can be download as excel format

- **Handshake**

A handshake is a process of requesting and accepting to share specific real estate property information between Real Estate Brokers, representing a mutual agreement between parties to

exchange property details. It embodies a commitment to transparency and collaboration, enabling real estate brokers to access and share information about the specific property with ease.

- Accepting, Denying and Canceling Handshake Request
- The Commission Share and Authority to Sell type can be displayed once the handshake is accepted

● Website Content Management

The management and maintenance of a website involve ensuring that the site is kept up-to-date. This includes tasks such as adding, editing, and updating website content, such as articles and other media.

- Page Ads Management (Create, update and delete)
- Articles Management (Create, Update and delete)
- Update About Content
- Update contents of Data Privacy Policy and Terms of Service

● Leads Generation

Leads generated via the website are securely stored within the MLS System, where they undergo systematic handling and organization throughout their lifecycle, from initial contact to conversion and beyond. This entails capturing inquiries and leads generated from property listings and facilitating communication between potential buyers or tenants and property owners or agents. The principal aim is to proficiently nurture leads through the sales funnel, ultimately converting them into paying customers.

● Message Encryption

The MLS system provides end-to-end encryption to ensure the privacy and confidentiality of conversations. This means that administrators do not have access to or the ability to read chats and leads messages within the MLS system, further enhancing the security of communications.

End-to-end encryption (E2EE) is a method of secure communication that ensures only the sender and intended recipient of a message can read its contents. Messages within the MLS System are inaccessible for reading elsewhere.

● Traffic Reporting

Monitoring the number of visits or pageviews that each property listing receives over a specific period of time. This helps gauge the overall popularity and visibility of listings on the website and MLS.

● Account Premium Subscription

By subscribing to a premium, registered users can unlock these additional benefits, thereby enhancing their overall experience and satisfaction with MLS System.

● Transactions Reporting

This encompasses the vigilant oversight of your transactions and the meticulous administration of your invoices and attention to detail.

● MLS System API

The MLS System provides an API, a RESTful systems that use standard HTTP methods to perform operations on resources.

- The API solely provides data and does not accept any input for storage
- Masking table columns for security reasons
- API Documentation

- **Page Ads Management**

Page ads management involves creating, monitoring, optimizing, and removing advertisements on web pages to maximize revenue or achieve marketing goals.

Page ads impression algorithm

Each ad placement is allocated a time slot per hour and designated for viewing during specific times of the day by website visitors.

$time_duration_per_hour = 60 / total_ads_in_placement$

$hours_in_minutes = 24 * 60$

$time_slots = hours_in_minutes / time_duration_per_hour$

Where **time_duration_per_hour** represents the duration of each impression in minutes per hour, **hours_in_minutes** denotes the total minutes in a 24-hour period, and **time_slots** indicates the total impressions per day.

Sample Default User Account Privileges

These user account privileges are provided as samples only and can be enhanced and utilized.

Max Property Listing	Max Users	MLS Access	Chat Access	Comparative Analysis Table	API Access
15	2	Yes	No	No	No

Sample Premium

This premium offering is provided as a sample only and can be enhanced and utilized.

Packages	Bronze	Silver	Gold	Platinum
Max Property Listing	+15	+50	+80	+120
Max users	-	+2	+3	+5
Featured Listings	+1	+2	+3	+5
MLS Access	Yes	Yes	Yes	Yes
Chat Access	No	Yes	Yes	Yes
Comparative Analysis Table	No	No	Yes	Yes
API Access	No	No	No	Yes
Duration	30 days	30 days	30 days	30 days
Amount	₱ 499	₱ 1,499	₱ 2,499	₱ 3,499

- **Property Listing Score Computation**

This points system considers various criteria such as title, tags, long description, category, price, reservation, lot area, thumbnail image, and YouTube URL, image dimensions, recent modifications and total amenities selected. Each criterion contributes differently to the overall points, ensuring a comprehensive assessment of the uploaded data.

- Title, Tags, Long Description, Category, Price, Reservation, Lot Area, Thumbnail Image, and YouTube URL - each of these fields has points calculated as follows:
 - Points: 1 divided by 14 for each non-empty field

- Image Dimension Points:
 - Each uploaded image is resized to a maximum width of 1024px
 - Points calculated based on the width and height of images
 - Formula: $(\text{Width} / 1024) + (\text{Height} / 1024)$
 - Additionally, the total accumulated points of uploaded images are divided by 10
- Modification Date Points:
 - If modification date is within 7 days
 - Points: 1 divided by 14
- Com Share, Authority to Sell Expiration, Authority Type, Tax Allocation, Payment Mode, Option Money Duration - each of these fields has points calculated as follows:
 - Points: 1 divided by 3 for each non-empty field
- Village, Street, and Municipality fields - each field contributes points calculated as follows:
 - Points: 1 divided by 6 for each non-empty field
- Amenities Points:
 - Points: total amenities selected divided by 10
- Other Specification
 - Dedicated Customer Service Management Portal
 - Dedicated Web Admin Management Portal
 - No simultaneous dual account logins permitted.
 - No cross-domain logins allowed.
 - Permission-based access allows users to access content only if granted by the account holder.
 - Subscriptions automatically expire based on the subscription end date.
 - Expired subscriptions will revert to default privileges. Users and property listings will be deactivated.
 - When the premium subscription includes a Featured Ad and is activated, property listings can be set as featured.
 - Sold properties do not count towards the MAX_POST limit.
 - When the MAX_POST limit is reached, sold properties cannot be set as available.
 - Each account is assigned an API KEY.
 - If the premium subscription does not include API ACCESS, the API KEY cannot be used.
 - Only one subscription package is allowed per account.
 - Each account is provided with a PIN; the PIN can be used as login credentials for Customer Service Personnel to assist registered accounts in resolving issues.
 - Invoices will be sent to the email address registered to the account.
 - Local Board, Regional Board, and National MLS listings.
 - Thread messages are downloadable.
 - Error messages are displayed for invalid inputs.
 - Email notifications are sent for account activities.
 - Password reset functionality is available.
 - Traffic recording is based on a 30-minute session duration.
 - Provided documents for KYC automatically expire based on the ID expiration date.
 - Posted listings automatically expire based on the selected duration.

• Required Subdomains

Using a subdomain structure allows for better organization, scalability, and management of different functionalities within the system. It can also facilitate easier deployment, maintenance,

and scaling of individual components, as well as provide improved security and performance isolation.

- **cdn.domain.com**
 - This subdomain is used for hosting static assets such as images, JavaScript files, and CSS files. Separating these assets onto a dedicated subdomain can improve website performance by offloading these resources to a separate server optimized for content delivery.
- **api.domain.com**
 - This subdomain is dedicated to hosting the application programming interface (API) endpoints. APIs allow different software systems to communicate with each other, enabling functionalities such as retrieving data, processing requests, and performing actions. Separating the API onto its own subdomain helps to isolate and manage API-related traffic independently from other parts of the application.
- **cs.domain.com**
 - This subdomain is stand for "Customer Service." Used to provide customer support resources and KYC Verification. Having a dedicated subdomain for customer support can streamline access to support services and improve the overall user experience.
- **webadmin.domain.com**
 - This subdomain is used for hosting the web-based administrative interface of a website. It provides a separate environment for managing site content, settings, and other administrative tasks. Separating the administrative interface onto its own subdomain helps to enhance security and control access to administrative functionalities.
- **admin.domain.com**
 - Similar to "webadmin.domain.com," this subdomain also host administrative interfaces but serve a different purpose and used for internal administrative tasks or management of backend systems.
- **manage.domain.com**
 - This subdomain used for hosting user account management functionalities such as user profiles, settings, preferences, and account-related actions. It provides users with a dedicated space for managing their accounts and personal information.

● Deliverables and Schedules

Description	Timeline	Duration
Presentation of Actual System	Within 30 days following the execution of the agreement	1 day
Setting up the System on the Customer's Web Server/Web Hosting Account	Within 7 days after the acceptance of the Development Plan.	3 days
Resolve Compatibility Issues with the System and server	Will start after the propagation of subdomains, which may take 24 to 72 hours after setup, depending on the server.	2 - 15 days

System Administrator Training	Once the compatibility issue has been resolved and the system is free of errors	1 day
Modification and Testing (Will only start if there are additional or modifications to the current specifications of the system)	Will start after the completion of training	Depending on the revised specifications
System Manual	Within 30 days following the completion of the system setup	

- Development Cost & Payment Schedule

System Development Cost		P660,000
Payment Schedule		
<input checked="" type="checkbox"/>	Down Payment	P330,000
Remaining		
<input type="checkbox"/>	After successful setup, compatibility issues addressed, and acceptance of the system	P230,000
<input type="checkbox"/>	Upon Completion of 6 months maintenance	P100,000

Accepted By Customer Representatives

Enrique G Santos
PAREB President

Abigail Joan O. Lim
Secretary General