

# DEVELOPMENT PLAN

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

Emmanuel P Olivas  
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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](http://www.google.com)

## DETAILED SPECIFICATION

- Access, Privileges and Permissions
  - Dedicated Administrator subdomain for management
  - Dedicated Customer Service subdomain for management
  - Dedicated Web Admin subdomain for management
  - Dedicated Account subdomain for management
  - No simultaneous account logins permitted.
  - No cross-domain logins allowed.
  - Password reset functionality is available.
  - Permission-based access allows users to access content only if granted by the account holder.
  - Limited Privileges granted to accounts

Privileges	Possible Values	Sample Default Value
Max Property Listing	0 - 999999999	3
Max Users	0 - 999999999	1
MLS Access	True or false	true
Chat Access	True or false	false
Comparative Analysis Table	True or false	false
API Access	True or false	false
Handshake Limit	0 - 999999999	1
Featured Listings	0 - 999999999	0

- Account
  - The system has the following functions:
  - Create, modify and delete accounts.
  - Create, modify and delete users.

- Email notifications are sent for account activities
- 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.
- The account holder can set permissions for users to access information

Permissions	Access
<i>Registered Accounts</i>	
Account Information	View and update information of account
Account Users Information	View, update and delete users from account
Account Leads Information	View, update and delete leads from account
Account Property Listings	View, update and delete properties from account
Account Premium Subscription	Subscribe to premium
Account Transactions	View transactions of account
<i>Administrators, Web Admin and Customer Service</i>	
Account	Create, modify and delete accounts
Account Users	Create, modify and delete account users
Settings	Modify system settings
Web Settings	Modify public website settings
KYC Process	Verify and accept documents
Articles	Create, update, publish and delete articles from website
Premium	Create, modify and delete Premiums from system
Transactions	View all transactions
Reports	Access and generate reports

- **Featured Ad**
  - When the premium subscription includes a Featured Ad and is activated, property listings can be set as featured.
  - Featured ads will be displayed in the MLS (Multiple Listing Service)
- **Settings**

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

  - Sets default account privileges
  - Enabling/disabling KYC verification
  - Enabling/disabling premium features
  - Configure the email address for email notifications
  - Turning Value Added Tax (VAT) on/off
  - Sets up analytics script
  - Configure custom header script
  - Configure office contact information and address
- **Account Premiums**
  - Create, Modify and delete premiums

- Generate invoices for each successful transaction
- Invoices will be sent to the email address registered to the account.
- Add, suspend, and delete account subscriptions
- Subscriptions automatically expire based on the subscription end date.
- Expired subscriptions will revert to account default privileges. Users and property listings will be deactivated, Featured Listings will be set to unfeatured.
- Only one premium subscription package is allowed per account.
- Integrated PayPal for payment processing

## 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

- **KYC Management**
  - List of all verified account holder
  - Verify/Deny submitted Identification documents
  - Provided documents for KYC automatically expire based on the ID expiration date.
- **Chat Messaging**
  - Users may receive notifications when new messages are received.
  - Can send text-based, uploaded images, and link-based messages
  - End-to-end encryption (E2EE)
  - Thread messages are downloadable.
- **Property Listings Management**
  - Listing Creation
    - For Sale, For Rent and Wanted to Buy or Looking for Property
  - Data Entry and Maintenance
  - Categorization and Tagging
  - Analytics and Reporting
  - Strategically determine advertising placement
    - Local Board MLS, Regional MLS, MLS Wide, Public Website and/or Personal Use
  - Score a property based on the fields
  - Sold properties do not count towards the MAX\_POST limit.
  - When the MAX\_POST limit is reached, sold properties cannot be set as available.
  - Posted listings automatically expire based on the selected duration.
  - Expired Authority to sell will expire the posted listings automatically.

- **Multiple Listing Service Platform**
  - Local Board MLS
  - Regional Board MLS
  - MLS Wide
  - A featured ad will be displayed after every 4th listing
- **Comparative Analysis Table**
  - Comparative analysis table can be shared with durations
  - And can be download as excel format
- **Handshake**
  - Handshake to share information of listings between two accounts
  - Accept, Deny and Cancel Handshake Request
  - The Commission Share and Authority to Sell type can be displayed once the handshake is accepted
  - Handshakes cannot be cancelled.
  - Handshake automatically cancels after 30 days of acceptance and/or in pending status
  - Handshake listings will be posted in the requester's profile.
  - Expired handshakes will also be removed from the requester's profile.
  - If a listing has expired, handshake listings from the requester will also expire.
- **Real Estate Practitioner Profile**
  - The profile will be displayed when the profile picture is clicked from the MLS and Public Website.
  - Profiles include the following data:
    - Contact Number, Email Address, Certifications, Websites, Social Media, Hobbies, Area of Expertise, Services
- **Website Content Management**
  - 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
  - Sets contact information and office address
- **Leads Generation**
  - Create, update and delete Leads
  - End-to-end encryption (E2EE)
    - Name, email, contact number and message
- **Traffic Reporting**
  - Traffic recording is based on a 30-minute session duration
  - Pages and listings have traffic reporting capabilities
- **Transactions Report**
  - Detailed Report Per Transactions
  - Monthly & Yearly Transaction Report
  - Subscriber Per Board
  - Total Transactions Per Board
  - Total Listings Per Category
  - Total Listings Per Location

- **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
- Each account is assigned a unique API KEY
- If the premium subscription does not include API ACCESS, the API KEY cannot be used.

- **Page Ads Management**

**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.

$\text{duration\_per\_hour} = 60 / \text{total\_ads\_in\_placement}$

$\text{hours\_in\_minutes} = 24 * 60$

$\text{time\_slots} = \text{hours\_in\_minutes} / \text{duration\_per\_hour}$

Where **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.

- **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

● 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
<b>Presentation of Actual System</b>	Within 30 days following the execution of the agreement	1 day
<b>Setting up the System on the Customer's Web Server/Web Hosting Account</b>	Within 7 days after the acceptance of the Development Plan.	3 days

<b>Resolve Compatibility Issues with the System and server</b>	Will start after the propagation of subdomains, which may take 24 to 72 hours after setup, depending on the server.	2 - 15 days
<b>System Administrator Training</b>	Once the compatibility issue has been resolved and the system is free of errors	1 day
<b>Modification and Testing</b> (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
<b>System Manual</b>	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*