

REAL ESTATE LISTING PLATFORM – UPDATED COMPLETE REQUIREMENTS DOCUMENT

1. USER ROLES

Guest:

- Can browse property listings
- Can filter/search
- Cannot save favorites
- Cannot post property
- Cannot send inquiries
- Read-only access

User (Buyer/Renter):

- Register and login
- Save/unsave favorites
- Send inquiry to agents
- Edit profile
- View saved properties

Agent:

- Add new property
- Upload images
- Edit own properties
- Delete own properties
- View inquiries for posted properties

Admin:

- Approve/reject properties
- Manage all users (remove/deactivate)
- Delete any property
- View all inquiries
- System overview panel

2. FUNCTIONALITIES & EXPLANATIONS

2.1 Registration

- User signs up with name, email, password, role, phone
- Password hashed before saving
- Email must be unique

2.2 Login & JWT Authentication

- Access Token (short-lived)
- Refresh Token (long-lived, HttpOnly cookie)
- Used for role-based access

2.3 Role-Based Access Control

- Only agents can add properties
- Only admins can approve listings
- Users can only favorite properties
- Guests have public access only

2.4 Add Property (Agent)

Fields:

- title
- description
- price
- bedrooms, bathrooms
- area
- city, country
- full address
- location (lat/lng)
- features
- furnishing
- property type
- images

- agent ID stored automatically
- isApproved = false initially

2.5 Property Images Storage

- Uploaded via Multer
- Stored in Cloudinary
- Cloudinary returns URL + public_id
- Stored inside property document
- Image ownership = property ownership (agent posted it)

2.6 Property Approval Flow

- New property = Pending
- Admin sees pending list
- Approve: isApproved = true
- Reject: delete or mark rejected
- Only approved properties are visible publicly

2.7 Search & Filtering

Filters include:

- price range
- bedrooms
- bathrooms
- property type
- furnishing
- city
- keywords

Backend performs dynamic MongoDB queries.

2.8 Google Maps Integration

- Display map on property details
- Autocomplete search
- Convert address to lat/lng
- Show property markers

- Search radius for nearby properties

2.9 Favorites System

- Users save properties
- Stored in FavoriteSchema (user + property)
- Can view saved list anytime

2.10 Inquiry System

Stored with:

- property ID
- user ID
- message
- contact number

Accessible by:

- Agent of property
- Admin

2.11 Dashboard Features

User Dashboard:

- Saved properties
- Profile update

Agent Dashboard:

- Add/edit/manage own properties
- View property inquiries

Admin Dashboard:

- Approve/reject properties
- Manage users
- See system insights

3. DATABASE SCHEMA (MongoDB)

USER SCHEMA:

role, fullName, email, password, phone, profilePic, refreshToken

PROPERTY SCHEMA:

title, description, price, bedrooms, bathrooms, area, furnishing,
address, city, country, location(lat/long), features, images(url + public_id),
agent, status, isApproved

FAVORITE SCHEMA:

user, property

INQUIRY SCHEMA:

property, user, message, contactNumber

4. IDENTIFICATION LOGIC

Who posted a property?

- agent field stores agent userId

Which images belong to which property?

- images stored inside each property document

Who favorited what?

- favoriteSchema links userId -> propertyId

Who sent what inquiry?

- inquirySchema stores userId + propertyId + agentId

5. APPROVAL WORKFLOW (DETAILED)

Step 1: Agent creates property → saved as PENDING

Step 2: Admin sees pending list

Step 3: Admin approves → property visible publicly

Step 4: Admin rejects → property removed or flagged

6. OPTIONAL FEATURES

- Real-time chat
 - Mortgage calculator
 - Scheduled visits
 - Multi-language support
 - Reviews and ratings for agents
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This document includes updated details for ownership, images, approval, and user roles.