VEHICLE MANAGEMENT SYSTEM

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INTRODUCTION

The **Vehicle Management System (VMS)** is a comprehensive and user-friendly platform designed to simplify and improve the management of vehicles, visitors, and residents in residential or commercial complexes. It ensures smooth operations by assigning specific roles and responsibilities to Secretaries and Security personnel.

The **Secretary** manages key data, including apartments, tenants, owners, and their vehicles. This ensures that all resident information is well-organized and up-to-date. The **Security staff**, on the other hand, focus on tracking visitor details, managing visitor vehicles, and monitoring the entry and exit of all vehicles, including those belonging to tenants and owners. This division of roles enhances efficiency and accountability within the system.

Developed using **PHP 5.3.3** and backed by a secure and scalable **MySQL database**, the VMS offers a reliable alternative to outdated manual processes. Its centralized structure reduces errors, saves time, and provides easy access to real-time data. By improving data management and security, the VMS helps ensure a safer and more organized environment for all stakeholders.

***Requirements for*** ***vehicle Management System Project***

1. **Information about apartments to be maintained**
   1. **Information about apartment to be insert**
      1. Apartment number.
      2. Floor number.
      3. Number of bedrooms (Type 1BHK,2BHK,3BHK).
      4. Mark apartment as occupied
      5. Mark apartment as vacant.
   2. **Information about apartment to be delete**
      1. Mark the apartment is not operational (logically delete).
   3. **Information about apartment to be view**
      1. Operational apartment.
      2. Non-operational apartment.
      3. Current occupancy status (occupied/vacant).
   4. **Information about apartment to be update**
      1. Apartment details
         1. Apartment number.
         2. Floor number.
         3. Number of bedrooms (Type 1BHK,2BHK,3BHK).
      2. Occupancy status
         1. Mark as occupied.
         2. Mark as vacant.
2. **Information about the owner to be maintained**
   1. **Information about the owner to be insert**
      1. Owner full name.
      2. Date of birth.
      3. Contact information.
      4. Identification details.
      5. Date of ownership.
   2. **Information about the owner to be delete**
      1. Mark owner as former owner (logically delete).
   3. **Information about the owner to be view**
      1. View update current owners.
         1. Owner name.
         2. Date of birth.
         3. Contact information.
         4. Identification details.
         5. Date of ownership.
      2. View former owners (who are logically deleted).
   4. **Information about the owner to be update**
      1. Update current owner’s details.
         1. Owner name.
         2. Date of birth.
         3. Contact information.
         4. Identification details.
         5. Date of ownership.
         6. Total members in family.
3. **Information about the vehicles of owners, visitors and tenant to be maintained**
   1. **Information about the vehicles to be insert**
      1. Vehicle model.
      2. Vehicle type (two wheeler or four wheeler).
      3. License plate number.
      4. Owner type
   2. **Information about the vehicles to be delete**
      1. Mark the vehicle as inactive.
   3. **Information about the vehicles to be view**
      1. View active vehicles.
      2. View inactive vehicles (logically deleted).
      3. View vehicles history.
   4. **Information about the vehicles to be update**
      1. Update vehicle details.
         1. Vehicle model.
         2. Vehicle type.
         3. Vehicle color.
         4. License plate number.
         5. Owner’s name (registered name).
         6. Owner’s apartment number.
4. **Information about the family members of owner and tenant to be maintained**
   1. **Information about the family members of owner and tenant to be insert**
      1. Full name.
      2. Relationship to owner, tenant.
      3. Identification details.
      4. Age
      5. Contact information.
      6. Residency status (if any).
   2. **Information about the family members of owner and tenant to be delete**
      1. Mark the family member as inactive (not living together) (logically delete).
   3. **Information about the family members of owner and tenant to be view**
      1. View current family member.
         1. Full name.
         2. Relationship to owner, tenant.
         3. Identification details.
         4. Age.
         5. Contact information.
         6. Residency status.
      2. View former family member. (inactive or logically deleted).
      3. View family member history.
   4. **Information about the family members of owner and tenant to be update**
      1. Update personal details.
         1. Full name.
         2. Age.
         3. Identification details.
         4. Contact information.
      2. Update residency status.
      3. Update relationship to owner.
5. **Maintain the data of visitors**

**5.1. Information about visitors to be inserted**

* + 1. Visitor's name.
    2. Purpose of visit
    3. Apartment being visited.
    4. Check-in time.
    5. Actual check-out time.
    6. Vehicle details (if applicable).
    7. ID proof details.
  1. **Information about visitors to be deleted**
     1. Archive visitor (logically deleted).
  2. **Information of visitors to be viewed**
     1. View current visitors.
        1. Visitor's name
        2. Purpose of visit
        3. Apartment being visited
        4. Check-in time
        5. Actual check-out time
        6. Vehicle details (if applicable)
        7. ID proof details
     2. View archived visitors data.
  3. **Information about visitors to be update**
     1. Update visitor's name
     2. Update purpose of visit
     3. Update vehicle details (if applicable)
     4. Update ID proof details.

1. **Entry of vehicles to be maintained**
   1. **Entry of vehicles to be insert**
      1. Vehicle license plate.
      2. Date of entry.
      3. Time of entry.
      4. Driver information (if different from owner)
         1. Driver name.
         2. Driver id.
         3. Driver contact information.
      5. Purpose of visit (for non-resident vehicles)
   2. **Entry of vehicles to be view**
      1. View entries.
      2. View vehicle details.
      3. View driver information.
   3. **Log entry of logical delete**
      1. Mark the entry as inactive keep it for record-keeping and compliance check.
2. **Exit of vehicles to be maintained**
   1. **Exit of vehicles to be insert**
      1. Vehicle license plate
      2. Date of exit.
      3. Time of exit
      4. Driver information (if different from owner)
         1. Driver name.
         2. Driver id.
         3. Driver contact information
   2. **Exit of vehicles to be view**
      1. View exits.
      2. View vehicle details.
      3. View driver information
   3. **Log entry of physical delete**
      1. Mark the entry as inactive keep it for record-keeping and compliance checks.
3. **Maintain the person details moving the vehicles ( Driver’s details)**
   1. **Insert driver information**
      1. Driver's name.
      2. Driver's ID proof.
   2. **View driver information**
      1. View active drivers.
      2. View driver history.
4. **Maintain the Information of Tenant**
   1. **Insert tenant information**
      1. Tenant's full name
      2. Tenant's contact information (phone, email)
      3. Identification details (ID type and number)
      4. Rent start date
      5. Rent end date
      6. Apartment number (associated with the tenant)
      7. Emergency contact details
      8. Tenant type (permanent/temporary)
   2. **Delete tenant information**
      1. Mark the tenant as former (inactive) after lease expiration.
   3. **View tenant information**
      1. View active tenant.
         1. Tenant's full name
         2. Tenant's contact information (phone, email)
         3. Identification details
         4. Rent start date
         5. Rent end date
         6. Apartment number (associated with the tenant)
         7. Emergency contact details
         8. Tenant type (permanent/temporary)
   4. **Update tenant information**
      1. Update tenant’s information
         1. Tenant's full name
         2. Tenant's contact information (phone, email)
         3. Identification details
         4. Rent start date
         5. Rent end date
         6. Apartment number (associated with the tenant)
         7. Emergency contact details
         8. Tenant type (permanent/temporary)
5. **Users of the system to be maintained**
   1. **Creation of user**
      1. Create user
         1. User's full name
         2. User role (secretary, security, admin, etc.)
         3. Username
         4. Initial password
         5. Contact information
   2. **User authentication**
      1. User I’d forgot.
         1. E-mail based recovery.
         2. Mobile number-based recovery.
      2. User change password.
         1. E-mail based password confirmation.
         2. Phone number-based confirmation.
      3. Forgot Password.
         1. User-initiated reset via email.
         2. User-initiated reset via phone number.
   3. **Deactivate user**
      1. Deactivate account (admin, security, secretary).

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ER-DIAGRAM

