

# **Software Requirements Specification (SRS) – Find an Orthodontist**

## **1. Introduction**

### **1.1 Purpose**

The purpose of the Find an Orthodontist project is to provide an advanced and user-friendly platform for users seeking orthodontic services. This project aims to improve upon the existing Find an Orthodontist features, enhancing usability, search functionality, and overall user experience.

### **1.2 Scope**

The scope includes the redevelopment of the Find an Orthodontist section using Laravel, focusing on refined search options, interactive mapping, secure user login, and an efficient admin dashboard for effective management. Additionally, the revised scope includes implementing enhanced user features and benefits, transforming the platform into a comprehensive tool for orthodontists.

## **2. System Overview**

### **2.1 Existing Features (Baseline for Improvement)**

- Listing of orthodontists and their hospitals and clinics.
- Search functionality based on location (Pincode, city name).
- Google Maps integration for location display based on latitude & longitude.
- Nearby search based on visitor's geo-location.
- User login system for listed entities.
- User account management and password reset functionality.
- Admin dashboard for user
- and listing management.

### **2.2 Enhanced Features**

#### **2.2.1 Search Functionality**

- Users can search for orthodontists by First Name, Last Name, City, State, Pin Code, Hospital Names, Clinic Names, and LM Number.
- Advanced search filters for precise results based on various criteria.

#### **2.2.2 Google Map Display**

- Search results are displayed on a Google map, showing multiple locations also listings below map For eg. Map above listings.
- Users can visualize the geographical distribution of orthodontists.

#### **2.2.3 Radius Search**

- Users have the option to select a specific search radius (e.g., 20km) for more localized results.
- Near Me feature for convenient searches based on the user's current location.

#### 2.2.4 User Login

- Implement secure user login functionality for listed entities.
- Users can activate their accounts via mobile number or email.
- Password reset mail will be sent to their email for enhanced security.

#### 2.2.5 User Dashboard

- Orthodontists get a comprehensive user dashboard with features like:
  - Contact details.
  - Address, LM No., City, Area, State, Pincode, Country
  - Banner for personal branding.
  - Multiple Clinic Locations with timings.
  - Images & Video Gallery (Only Embedded Videos are allowed).
  - Services offered.
  - Articles for sharing expertise.
  - Experience and Education details.
  - Awards & Recognitions.
  - Ability to upload brochures for users to access.

#### 2.2.6 User Benefit

- Create a dedicated page for each orthodontist, serving as their personalized website.
- Provide a unique login ID and password for orthodontists to manage and update their information regularly.

### 3. Non-Functional Requirements

#### 3.1 Performance

- Ensure fast loading times and responsiveness for search results and user dashboards.
- Optimize database queries for efficient data retrieval.

#### 3.2 Security

- Implement robust security measures for user authentication and data protection.
- Regularly update security protocols to address emerging threats.

#### 3.3 Scalability

- Design the system to handle a growing number of listings and user interactions.
- Incorporate cloud-based solutions for scalable infrastructure.

#### 4. User Communication

- Implement in-app notifications for important updates, new listings, and user interactions.
- Regularly communicate system changes and improvements through newsletters and announcements.
- Support ticket system for users to mention issues or bugs if they face any it will be shared with admin directly.

#### Workflow for Admins:

##### 1. Admin Login and Dashboard

- **Step 1:** Admin logs in securely with credentials.
- **Step 2:** Upon login, the admin is directed to a comprehensive dashboard.
- **Step 3:** Dashboard includes key metrics, user activity logs, and a snapshot of the current listings.

##### 2. Listings Management

- **Step 1:** Admin accesses the Listings Management section.
- **Step 2:** Can add new orthodontists and their hospitals and clinics.
- **Step 3:** Edits existing listings, including updating contact information, services offered, and various other details.
- **Step 4:** Moderates and verifies user-generated content for accuracy. Also any changes made by the User will come for approval to admin only after that it's visible

##### 3. User Management

- **Step 1:** Admin has the ability to manage user accounts.
- **Step 2:** Can view and edit user profiles and account details.
- **Step 3:** Admin can reset passwords and manage user permissions.

##### 4. Analytics and Reporting

- **Step 1:** Admin accesses the Analytics and Reporting section.
- **Step 2:** Views user activity trends, search patterns, and engagement metrics.
- **Step 3:** Generates detailed reports for marketing and optimization purposes.

##### 5. Communication and Announcements

- **Step 1:** Admin can send announcements and notifications to users.
- **Step 2:** Manages communication channels to convey important updates.
- **Step 3:** Receives and manages user feedback and support requests.
- All this can be done via Integrated Email Feature and a notification tab on user panel to see all notifications.

## **Workflow for Users (Orthodontist):**

### **1. User Login**

- **Step 1:** IOS registered users can login the platform by providing necessary details and details will be sent to their mail.
- **Step 2:** Account verification is initiated through email or phone confirmation.
- **Step 3:** Users log in securely with their credentials.

### **2. Profile Management**

- **Step 1:** Users can manage and update their profiles.
- **Step 2:** Upload or modify contact details, services offered, and professional information.
- **Step 3:** Add or update clinic/hospital information for accurate listings.

### **3. Listing Interaction**

- **Step 1:** Users can add Clinics/Hospitals & their branches, edit, and manage their listings.
- **Step 2:** Have the ability to mark availability hours at each of their locations.

## **Workflow for Visitors:**

### **1. Search and Discovery**

- **Step 1:** Visitors access the website and enter search criteria.
- **Step 2:** Search results display orthodontists, hospitals, and clinics based on the search parameters like LM No., City, Geo-Location.
- **Step 3:** Visitors can use filters and sorting options for refined search results also visitor can also activate near me feature after search also.

### **2. Listing Details**

- **Step 1:** Visitors click on a listing for detailed information.
- **Step 2:** View services offered, location on the map, and contact details.
- **Step 3:** Have the option to contact the listed entity for future reference.

## **Database Tables:**

### **1. Users Table:**

- **Fields:**
  - UserID (Primary Key)
  - UserType (Admin, Orthodontist)

- Username
- Password
- Email
- Phone
- VerificationStatus
- TwoFactorAuthStatus
- RegistrationDate
- LastLoginDate

## **2. Listings Table:**

- **Fields:**
  - ListingID (Primary Key)
  - UserID (Foreign Key to Users Table)
  - ListingType (Orthodontist)
  - Name (Orthodontist's name)
  - Address
  - LMNumber
  - City
  - Area
  - State
  - Pincode
  - Country
  - ContactPhone
  - ServicesOffered
  - VerificationStatus
  - CreationDate
  - LastModifiedDate

## **3. Admins Table:**

- **Fields:**
  - AdminID (Primary Key)
  - Username
  - Password

- Email

#### **4. Notifications Table:**

- **Fields:**
  - NotificationID (Primary Key)
  - UserID (Foreign Key to Users Table)
  - Message
  - NotificationType
  - Timestamp

#### **5. User Changes Approval Table:**

- **Fields:**
  - ChangeID (Primary Key)
  - UserID (Foreign Key to Users Table)
  - ChangeType (Profile Update, Listing Edit, etc.)
  - ChangeDetails (Details of the change made by the user)
  - ApprovalStatus (Pending, Approved, Rejected)
  - Timestamp

#### **Relationships:**

- **Users Table:**
  - One-to-One with Listings Table (One user can have one listing)
  - One-to-Many with Notifications Table (One user can receive multiple notifications)
  - One-to-Many with UserChangesApproval Table (One user can have multiple change requests)
- **Listings Table:**
  - One-to-One with Users Table (One listing can belong to one user)
- **Notifications Table:**
  - Many-to-One with Users Table (Many notifications can belong to one user)
- **User Changes Approval Table:**
  - Many-to-One with Users Table (Many change requests can belong to one user)