WEB TECHNOLOGY

MendIt

Your Home Problems, Our Solutions

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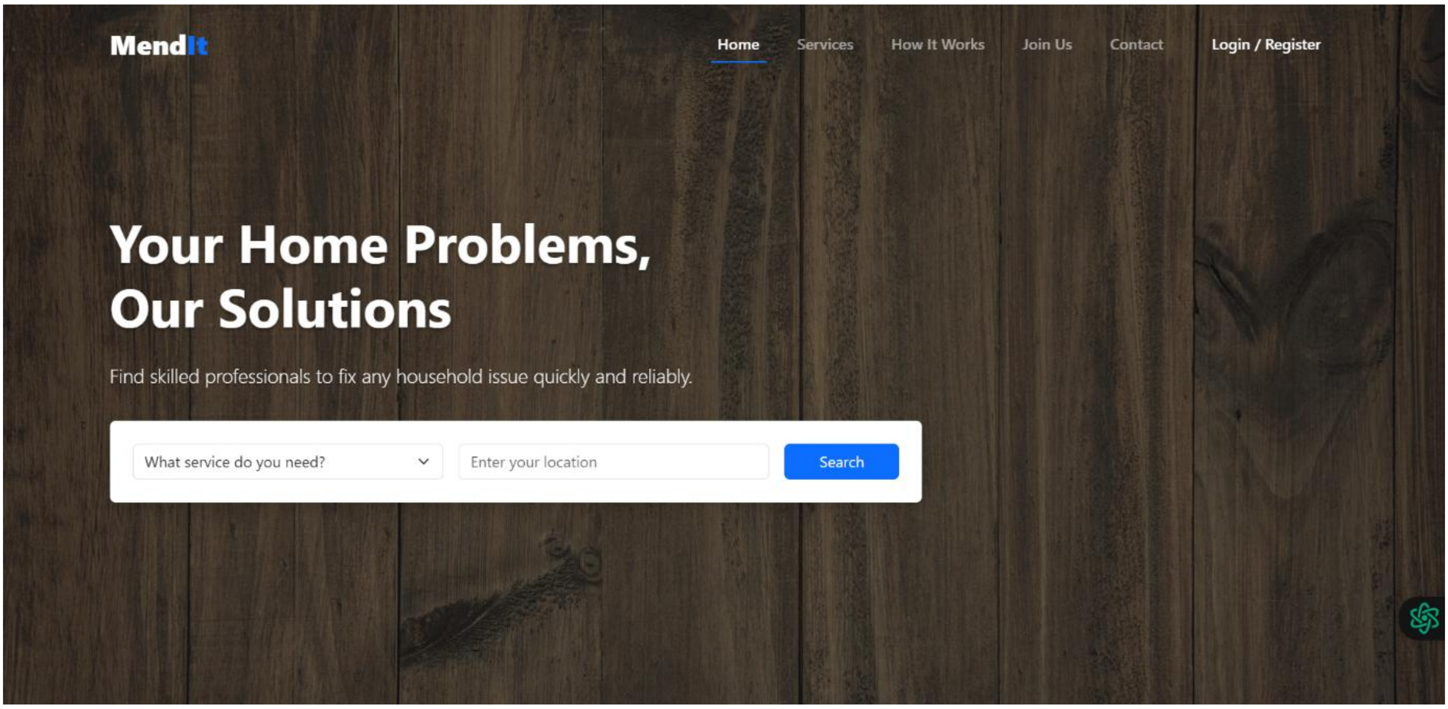
MendIt Website Pictures

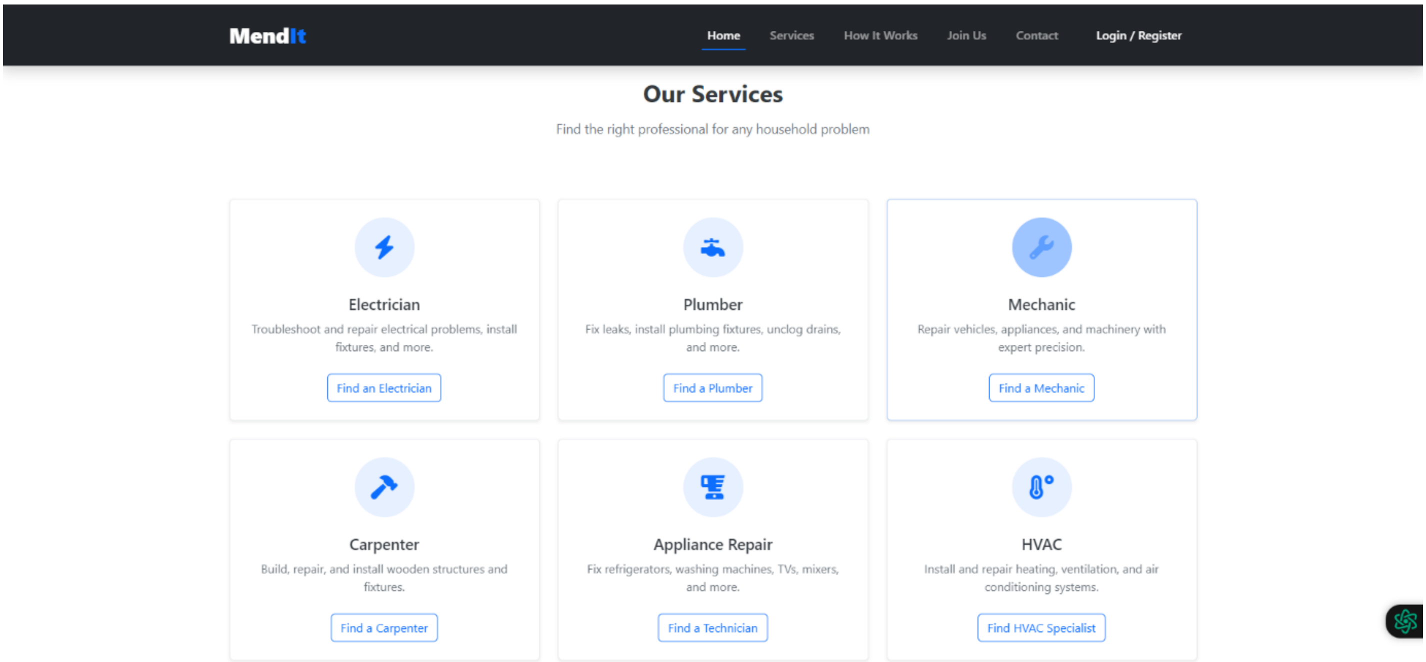


Your Home Problems, Our Solutions

Find skilled professionals to fix any household issue quickly and reliably.

What service do you need?

Enter your location



Our Services

Find the right professional for any household problem

Electrician

Troubleshoot and repair electrical problems, install fixtures, and more.

Plumber

Fix leaks, install plumbing fixtures, unclog drains, and more.

Mechanic

Repair vehicles, appliances, and machinery with expert precision.

Carpenter

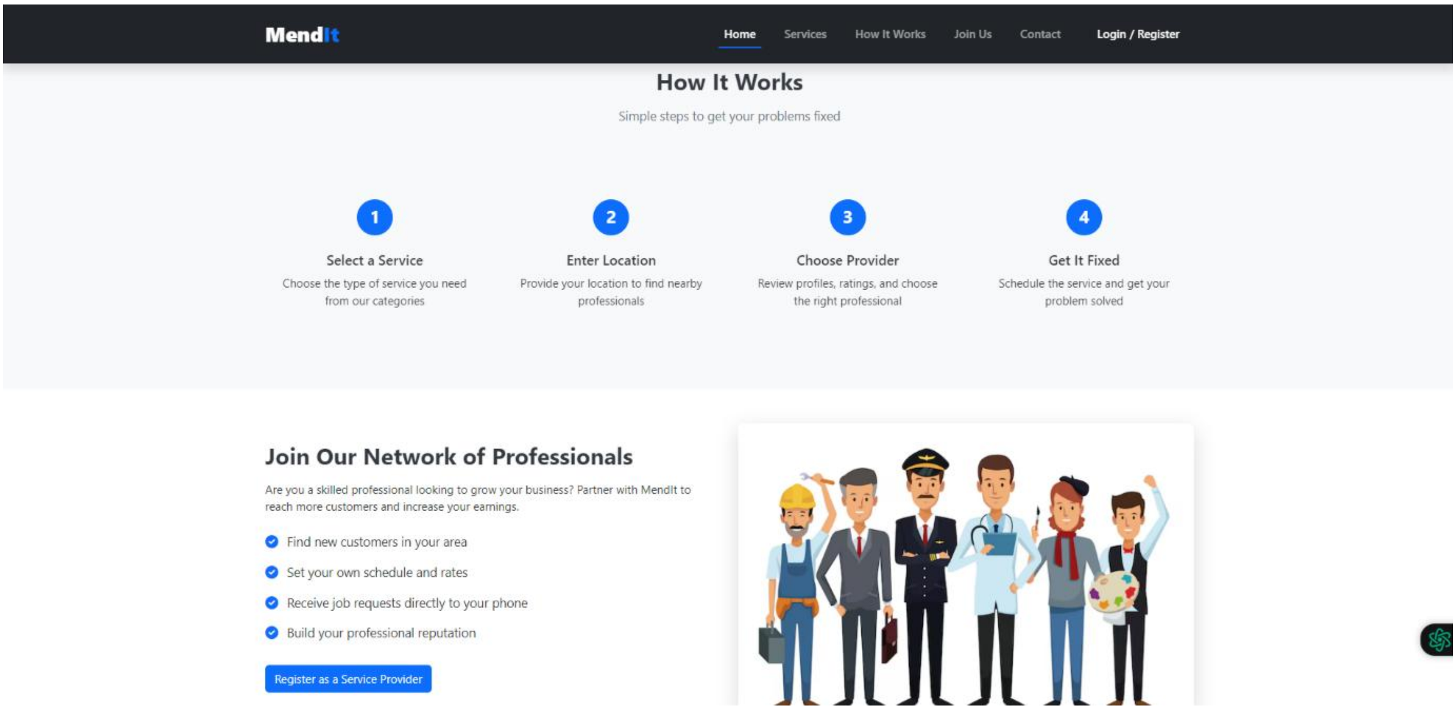
Build, repair, and install wooden structures and fixtures.

Appliance Repair

Fix refrigerators, washing machines, TVs, mixers, and more.

HVAC

Install and repair heating, ventilation, and air conditioning systems.



MendIt

Home | Services | How It Works | Join Us | Contact | Login / Register

How It Works

Simple steps to get your problems fixed

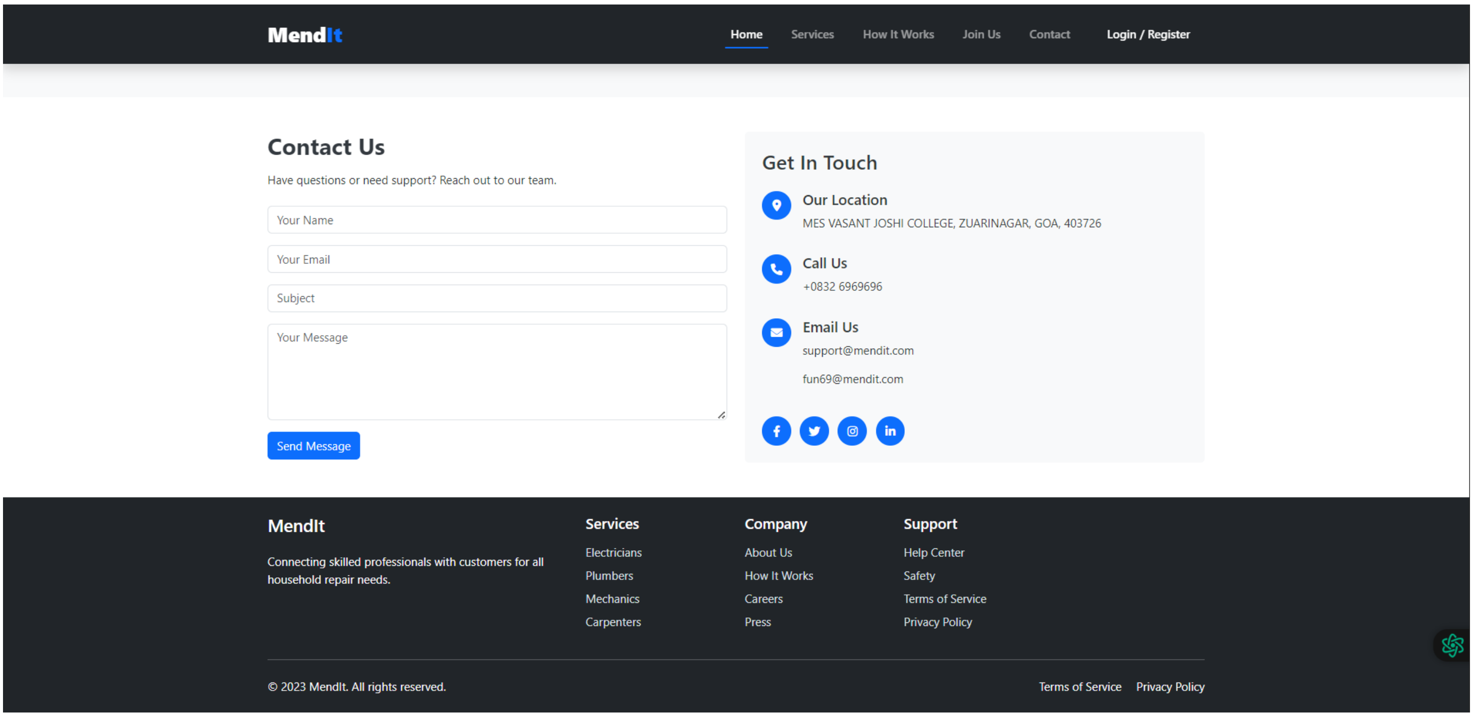
1. **Select a Service** Choose the type of service you need from our categories
2. **Enter Location** Provide your location to find nearby professionals
3. **Choose Provider** Review profiles, ratings, and choose the right professional
4. **Get It Fixed** Schedule the service and get your problem solved

Join Our Network of Professionals

Are you a skilled professional looking to grow your business? Partner with MendIt to reach more customers and increase your earnings.

- ✓ Find new customers in your area
- ✓ Set your own schedule and rates
- ✓ Receive job requests directly to your phone
- ✓ Build your professional reputation

Register as a Service Provider



MendIt

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Contact Us

Have questions or need support? Reach out to our team.

Your Name

Your Email

Subject

Your Message

Send Message

Get In Touch

Our Location
MES VASANT JOSHI COLLEGE, ZUARINAGAR, GOA, 403726

Call Us
+0832 6969696

Email Us
support@mendit.com
fun69@mendit.com

MendIt

Connecting skilled professionals with customers for all household repair needs.

Services
Electricians
Plumbers
Mechanics
Carpenters

Company
About Us
How It Works
Careers
Press

Support
Help Center
Safety
Terms of Service
Privacy Policy

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MendIt – Detailed Technical Documentation

1. Introduction

MendIt is a robust web-based platform designed to connect homeowners with professional service providers for various home maintenance and repair needs. The platform streamlines the process of finding, booking, and managing services across a wide range of categories. Whether it's electrical repairs, plumbing fixes, vehicle or appliance repairs, carpentry, or HVAC installations, MendIt offers an integrated solution that makes home management easier and more efficient.

This documentation details every aspect of the website—from the frontend and backend technologies to the database design, development environment, and the specific services offered.

2. Frontend Implementation

The frontend of MendIt is developed using modern web technologies and frameworks to ensure a responsive, user-friendly experience. The main components include HTML, CSS, JavaScript, and Bootstrap 5.

2.1 HTML Structure

- Homepage (Website.html):
  - Navigation Bar: A responsive menu with a brand logo and quick links.
  - Hero Section: Features a search functionality with a prominent call-to-action.
  - Service Categories: Displayed as Bootstrap cards, each representing a service category.
  - How It Works: A step-by-step guide to help users understand the process.
  - Footer: Contains additional links and contact information.

Sample HTML Snippet:

```
<!-- Navigation -->

<nav class="navbar navbar-expand-lg">

   <!-- Responsive menu and brand logo -->

</nav>
```

```
<!-- Service Categories -->

<div class="services-grid">

   <!-- Bootstrap cards for each service -->

</div>
```

```
<!-- Hero Section -->

<div class="hero-section">

   <!-- Search form and main call-to-action --
>
```

2.2 CSS Styling

- Bootstrap 5: Provides a responsive grid system, pre-styled components, and utility classes.
- Custom CSS: Adds unique styling to differentiate MendIt’s interface, including media queries for responsiveness and modern animations for enhanced user experience.

2.3 JavaScript Functionality

- Search Page (search.html, search.js):
    - Implements an advanced filtering system.
    - Provides real-time result updates.
    - Manages service provider cards, including ratings and location-based sorting.

Example JavaScript Functions:

```
// Search functionality
async function searchServices(filters) {
   // API call to fetch filtered results
   // Dynamic update of results
   // Sort and filter operations
}


// Filter handling
function applyFilters() {
   // Collect filter values
   // Update search results
   // Update URL parameters
}
```

- Dashboard (dashboard.html, dashboard.js):
    - Features a sidebar for navigation.
    - Provides components for profile management, service request tracking, and settings adjustments.

Dashboard HTML Structure:

```
<div class="dashboard-container">
  <!-- Sidebar Navigation -->
  <div class="sidebar">
    <!-- Navigation links -->
  </div>

  <!-- Main Content Area -->
  <div class="content">
    <!-- Dynamic content based on selection -->
  </div>
</div>
```

3. Backend Implementation

The backend is primarily developed in PHP, using the Windsurf framework to handle application logic, user authentication, and API endpoints.

3.1 PHP API Endpoints

- Authentication APIs:
  - Login Endpoint (direct_api_login.php):
    - Validates user credentials.
    - Creates user sessions.
    - Returns user data.
  - Registration Endpoint (direct_api_register.php):
    - Validates input data.
    - Creates new user accounts.
    - Handles password hashing.

- Service APIs:
  - Search Endpoint (direct_api_search_providers.php):
    - Processes search filters.
    - Returns matched service providers along with ratings and reviews.
  - Booking Endpoint (direct_api_create_request.php):
    - Creates new service requests.
    - Notifies the relevant provider.
    - Returns booking confirmation details.
- Dashboard APIs:
  - Profile Management (direct_api_update_profile.php):
    - Updates user profile information.
    - Manages file uploads and returns updated details.
  - Service Requests (direct_api_get_service_requests.php):
    - Fetches all service requests for a user.
    - Provides current status and provider details.

3.2 Security Implementation

- User Authentication:
  - Passwords are securely hashed using PHP's password_hash().
  - Sessions are managed securely with session tokens.
  - CSRF tokens and input validation are implemented to safeguard against attacks.
- Data Protection:
  - Prepared SQL statements are used to prevent SQL injection.
  - Input sanitization and XSS prevention measures are in place.

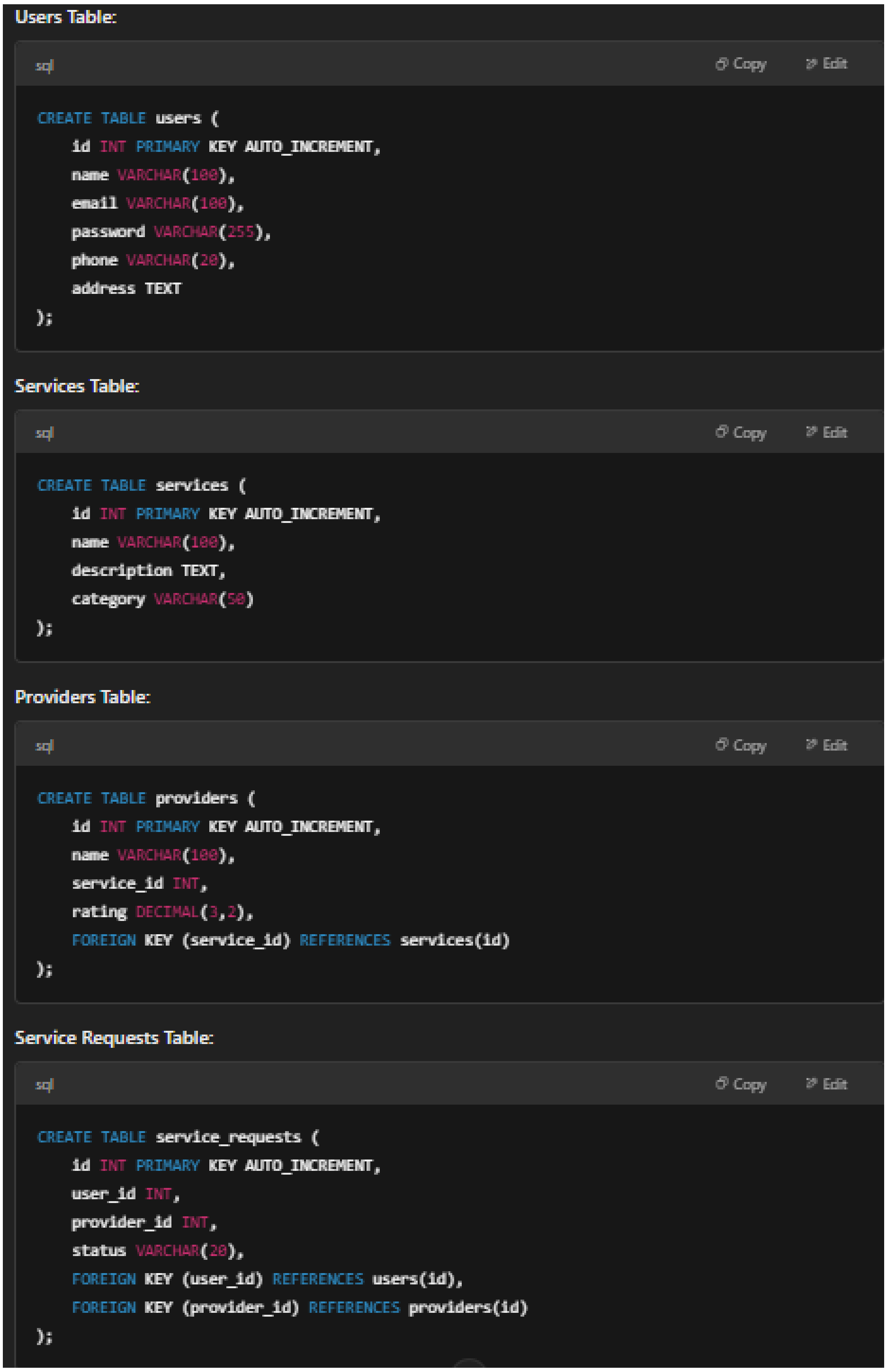
4. Database Implementation

The MySQL database is structured to efficiently manage all data related to users, service providers, services, and service requests.

4.1 Database Structure

The MendIt database (mendit_db) contains several key tables:

Users Table:



Users Table:

```sql
CREATE TABLE users (
    id INT PRIMARY KEY AUTO_INCREMENT,
    name VARCHAR(100),
    email VARCHAR(100),
    password VARCHAR(255),
    phone VARCHAR(20),
    address TEXT
);
```

Services Table:

```sql
CREATE TABLE services (
    id INT PRIMARY KEY AUTO_INCREMENT,
    name VARCHAR(100),
    description TEXT,
    category VARCHAR(50)
);
```

Providers Table:

```sql
CREATE TABLE providers (
    id INT PRIMARY KEY AUTO_INCREMENT,
    name VARCHAR(100),
    service_id INT,
    rating DECIMAL(3,2),
    FOREIGN KEY (service_id) REFERENCES services(id)
);
```

Service Requests Table:

```sql
CREATE TABLE service_requests (
    id INT PRIMARY KEY AUTO_INCREMENT,
    user_id INT,
    provider_id INT,
    status VARCHAR(20),
    FOREIGN KEY (user_id) REFERENCES users(id),
    FOREIGN KEY (provider_id) REFERENCES providers(id)
);
```

5. Development Environment

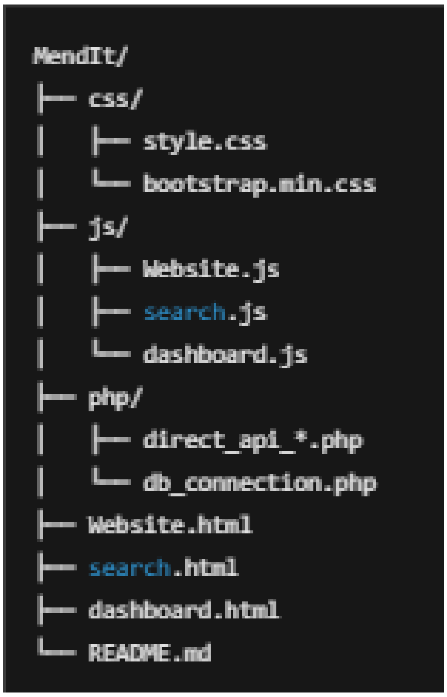
5.1 XAMPP Configuration

MendIt is developed in a local development environment using XAMPP, which integrates Apache, MySQL, and PHP:

- Apache:
  - Document root: C:\xampp\htdocs\MendIt
  - Default port: 80 (HTTP)
  - Virtual host configuration for local testing.
- MySQL:
  - Default port: 3306
  - Database name: mendit_db
  - User: root (used for development)
- PHP:
  - Version: 7.4 or higher.
  - Required extensions: mysqli, json, session.
  - Error reporting enabled for debugging and development.

5.2 Project Structure

The project is organized as follows:



```
MendIt/
├── css/
│   ├── style.css
│   └── bootstrap.min.css
├── js/
│   ├── Website.js
│   ├── search.js
│   └── dashboard.js
├── php/
│   ├── direct_api_*.php
│   └── db_connection.php
├── Website.html
├── search.html
├── dashboard.html
└── README.md
```

6. Functionality Flow

6.1 User Registration Process

1. User fills out the registration form.
2. Frontend validation is performed.
3. Data is sent to the registration API.
4. A new user entry is created in the database.
5. A session is started.
6. The user is redirected to the dashboard.

6.2 Service Booking Flow

1. User searches for a specific service.
2. Applies relevant filters (category, location, price, ratings).
3. Selects a service provider.
4. Fills in booking details.
5. Confirms the booking.
6. A service request is created in the database and the provider is notified.

6.3 Dashboard Operations

- Profile Management:
    - Users can view and update their profile, change passwords, and manage notifications.
- Service Requests:
    - Users can view all their service requests, track the status, cancel if necessary, and rate completed services.
- Messaging:
    - Integrated messaging allows users to contact providers, view chat history, and receive notifications.

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7. Additional Technical Details

7.1 HTML, CSS, and JavaScript Integration

- HTML: Structures the pages (homepage, search, dashboard) with semantic tags.
- CSS: Uses Bootstrap for layout and responsiveness, supplemented by custom CSS for unique design elements.
- JavaScript: Powers dynamic interactions like real-time search updates, form validations, and asynchronous data fetching using AJAX.

7.2 PHP and API Development

PHP scripts handle:

- User authentication and session management.
- API endpoints for searching, booking, and profile management.
- Interaction with the MySQL database to read and write data securely.

7.3 Bootstrap 5 Utilization

Bootstrap 5 is used extensively to:

- Create a responsive grid layout.
- Style navigation components, cards, modals, forms, alerts, and notifications.
- Enhance the user interface with utility classes and responsive design patterns.

---

8. Offered Services

MendIt connects users with professionals in several key service areas:

- Electrician:
  Troubleshoot and repair electrical problems, install fixtures, and more.
- Plumber:
  Fix leaks, install plumbing fixtures, unclog drains, and handle other plumbing tasks.
- Mechanic:
  Repair vehicles, appliances, and machinery with expert precision.
- Carpenter:
  Build, repair, and install wooden structures and fixtures.
- Appliance Repair:
  Fix refrigerators, washing machines, TVs, mixers, and other appliances.
- HVAC:
  Install and repair heating, ventilation, and air conditioning systems.

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9. Conclusion

This documentation provides an in-depth look at the MendIt website's technical framework—from the frontend design built with HTML, CSS, JavaScript, and Bootstrap 5 to the backend implementation using PHP and MySQL within a XAMPP environment. With robust security measures, a well-structured database, and a clear service offering, MendIt is designed to deliver a seamless and reliable user experience in home maintenance and repair services.