User Manual: Pothik-bondhu (পথিক-বন্ধু)

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1. Introduction

Pothik-bondhu is an intelligent, bilingual travel companion designed specifically for Bangladesh. It connects travelers with verified local guides across all 64 districts, provides smart route planning with weather integration, and ensures a seamless travel experience through a modern, responsive web interface.

2. System Overview

- **Web-Based:** Accessible from any device (Desktop, Tablet, Mobile).

- **Real-Time Database:** Data is stored securely using PostgreSQL (Neon DB).

- **Smart Search:** Fuzzy search logic handles spelling mistakes (e.g., "Cox Bazar" vs "Cox's Bazar").

- **Interactive Maps:** Visual route plotting using OpenStreetMap and Leaflet.

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3. Getting Started

Upon accessing the website, users are greeted with the **Landing Page**.

- **Navigation Bar:** Contains links to Guides, About, Language Toggle, Theme Toggle, and Login/Profile.

- **Hero Section:** The central hub for planning a trip immediately.

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4. Authentication Module

The system supports two distinct user roles: **Traveler** and **Guide**.

4.1 Registration

1. Click the **Login** button on the top right.

2. Switch to the **Register** tab.

3. **Select Role:**

   o 🎒 **Traveler:** Standard account for planning trips and hiring guides. Requires Name, Email, and Password.

   o 🧭 **Guide:** Professional account. Requires additional details:

      ▪ **Service District:** The home district the guide operates in.

- **Career Start Date:** Used to calculate experience automatically (e.g., "5 Years").

- **Phone Number:** Shared with travelers only after a booking is confirmed.

- **Languages:** Languages spoken by the guide.

4.2 Login

- Enter registered Email and Password.

- The system automatically redirects the user to the appropriate dashboard view based on their role.

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5. Traveler Module

5.1 Intelligent Trip Planning

1. On the homepage, enter a **Start District** (e.g., "Dhaka") and an **End District** (e.g., "Sylhet").

2. Click **Start Journey**.

3. **Result:** The system calculates the route, distance, and estimated travel time.

5.2 Route Visualization & Weather

- **Interactive Map:** Displays the driving route on a map.

- **Journey Itinerary:** A timeline view showing the Start point, Waypoints (districts passed through), and Destination.

- **Weather Widget:** Real-time weather updates (Temperature, Conditions like Fog/Rain) are displayed for every district on the timeline.

- **District Details:** Clicking on a district node expands it to show "Famous Foods" and "Places to Visit".

5.3 Finding & Booking Guides

1. Click **View Guides** on a specific district card or the main navigation bar.

2. **Smart Search:** Filter guides by district name.

3. **Guide Profiles:** View photos, experience level, languages, and current rating (out of 5 stars).

4. **Availability:** Guides are marked as either "Available" (Green) or "Busy" (Red).

5. **Booking:** Click **Request Booking**. This sends a real-time request to the guide.

5.4 Managing Trips & Ratings

1. Click on the **Profile Icon** (Top Right) -> **My Profile**.

2. **My Trips Tab:** View all Past, Active, and Pending trips.

3. **Status Tracking:** See if a guide has Accepted or Rejected your request.

4. **Completion & Rating:** Once a trip is marked "Completed", the traveler can rate the guide (1-5 Stars) and leave a text review. This updates the guide's public profile immediately.

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6. Guide Module

6.1 Guide Dashboard

Guides have access to a dedicated dashboard to manage their availability and work.

6.2 Managing Job Requests

1. Go to **Profile** -> **Job Requests Tab**.

2. **Pending Requests:** View new trip offers with details (Traveler Name, Trip Dates, Route).

3. **Action:**

   o **Accept:** Confirms the booking. The guide's contact info is revealed to the traveler. The guide's status automatically switches to "Busy".

   o **Reject:** Declines the booking.

6.3 Status & Location Updates

1. Click the **Status Button** (e.g., "Available/Busy") in the navbar.

2. **Toggle Availability:** Manually set status to "Available" or "Busy".

3. **Update Location:** If a guide travels to a different district, they can update their "Current Location". This allows them to appear in search results for the district they are currently in, not just their home district.

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7. General Features

7.1 Bilingual Support

- Click the **Language Toggle** (BD বাংলা / US English) in the navbar.

- The entire application (Menus, Buttons, District Data, Chatbot) instantly switches language without reloading the page.

7.2 AI Chatbot (Pothik Assistant)

- Located at the bottom right.

- Provides instant answers to FAQs (How to book, How to register, Cost, etc.).

- Responds in the currently selected language.

7.3 Dark Mode

- Toggle between **Light**, **Dark**, or **System** theme.

- Ensures visual comfort during night-time travel planning.

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8. Technical Architecture

(Useful for technical presentation)

- **Frontend:** React 19, TypeScript, Vite, Tailwind CSS.

- **Backend:** Node.js, Express.js.

- **Database:** PostgreSQL (via Neon Tech), accessed using pg (node-postgres).

- **Security:** bcryptjs for password hashing.

- **Maps:** Leaflet & OpenStreetMap API.

- **Deployment:** Render (Web Service).