# Project Proposal

## Title:

* + Border Buddy Application

## Contact Info:

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## Description:

## Border Buddy is a mobile application designed to assist residents and travelers in the El Paso-Juárez region. It provides real-time information about all ports of entry, including wait times, lane availability, and operational hours. Additionally, the app features a local events section showcasing weekly events happening in both El Paso and Juárez, fostering cross-border community engagement.

## Key Features/ Requirements:

* + **Interactive Map of Ports of Entry**
    - Display all El Paso-Juárez ports of entry.
    - Show real-time wait times, lane status (Ready Lane, SENTRI, pedestrian, cargo), and hours of operation.
    - Clickable markers for each port with detailed info.
  + **Local Events Calendar**
    - Weekly listing of events for El Paso and Juárez.
    - Categorized by type (music, food, sports, cultural).
    - Integration with device calendar for event reminders.
  + **Language Support**
    - Bilingual (English & Spanish) interface.
  + **Push Notifications**
    - Notifications for significant delays at ports or major local events.

## Sample Screens:

|  |  |
| --- | --- |
| A screen shot of a phone  AI-generated content may be incorrect. | A screen shot of a cell phone  AI-generated content may be incorrect. |

## Flutter Features To Be Used/Learned:

* + Google Maps Flutter Plugin
  + HTTP Package/ Rest API
  + Firebase Cloud Messaging
  + Calendar Integration Plugin
  + Localization Support
  + Animations
  + Responsive Design(for mobile apps)

## Development Plan and Schedule:

* + Set up main flutter environment, basic structure and UI framework.
  + Implement the Ports of Entry Map using Google Maps integration.
  + Integrate real-time border wait time API, display info on the map pins.
  + Design UI for local events and dummy data.
  + Integrate real events using an API or backend database.
  + Add Bilingual Support, possible settings page.
  + Implement Notifications.
  + Add system calendar integration for event details.
  + Test on devices, fix bugs and improve UI.
  + Final debugging, refactoring and documentation.