

TRAVEZ

Travel Planning Application

Feature Review & Capabilities

Overview

Travez is a comprehensive, mobile-first Progressive Web App (PWA) designed to revolutionize travel planning. Built with modern web technologies, Travez combines destination discovery, real-time flight search, visa requirement checking, and detailed trip management into a single, elegant platform.

Core Features

1. Destination Discovery

- Curated collection of 25 stunning global destinations
- Beautiful AI-generated destination photography
- Search across thousands of cities via Amadeus API integration
- Advanced category filtering (Beach, Mountain, City, Cultural, Adventure)
- Detailed destination information including climate, visa requirements, and best travel months
- Real-time Tours & Activities powered by Amadeus API
- Geographic coordinates for precise location mapping

2. Real-Time Flight Search

- Professional flight search powered by Amadeus Travel API
- Smart airport autocomplete with global coverage
- One-way and round-trip flight options
- Intelligent flight diversification algorithm (direct, 1-stop, 2+ stops)
- Detailed flight information: airline names, aircraft types, duration
- Comprehensive flight details dialog with segment breakdown
- Baggage allowance information with visual badges
- Interactive airport information dialogs
- Professional UI comparable to major booking platforms

3. Multi-Step Flight Booking System

- Professional booking wizard with progress indicator
- Step 1: Passenger details with form validation
- Step 2: Review booking with price breakdown
- Step 3: Demo payment processing (Stripe-ready)
- Step 4: Booking confirmation with reference number
- International flight detection for passport requirements
- Seat preference selection (window/aisle)
- Always-visible flight summary throughout booking
- Database schema ready for production bookings

4. Visa Requirements & Border Information

- Real-time visa requirement checks via Passport Index API
- 20+ passport nationality options
- Color-coded visa status (Visa-free, On-arrival, Required)
- Stay duration information for each destination
- Home country detection with friendly messaging
- Complete coverage for all 25 destinations
- User-friendly error handling for unavailable data

5. Trip Planning & Management

- Create and manage multiple trips
- Day-by-day itinerary planning
- Activity scheduling with time and location details
- Multiple activity types (dining, accommodation, transport, activities)
- Trip notes and custom descriptions
- Budget tracking with expense categorization
- Real-time expense totals and budget monitoring
- Trip editing and deletion capabilities

Technical Architecture

Frontend Technologies

- React 18 with TypeScript for type-safe component development
- Vite for lightning-fast development and optimized builds
- TanStack Query (React Query) for efficient server state management
- Wouter for lightweight client-side routing
- shadcn/ui component library built on Radix UI primitives
- Tailwind CSS for utility-first responsive styling
- React Hook Form with Zod validation for robust forms
- Lucide React for modern iconography
- date-fns for date manipulation and formatting
- Progressive Web App (PWA) with offline support

Backend Technologies

- Node.js with Express for RESTful API
- TypeScript throughout for end-to-end type safety
- PostgreSQL (Neon) for reliable data persistence
- Drizzle ORM for type-safe database queries
- Passport.js for authentication (local strategy)
- express-session with PostgreSQL session store
- Secure password hashing using Node.js crypto (scrypt)

External API Integrations

- Amadeus Travel API: Flight search, airport data, tours & activities
- Passport Index API: Real-time visa requirements
- Unsplash API: High-quality destination photography
- OAuth 2.0 token management with intelligent caching

User Experience Highlights

- Mobile-first responsive design optimized for all devices
- Bottom navigation bar for easy thumb-friendly access
- Persistent session management for seamless experience
- Guest browsing with authentication for personalized features
- Intelligent form validation with helpful error messages
- Loading states and skeleton screens for perceived performance
- Debounced search to reduce API calls and improve performance
- Toast notifications for user feedback
- Dark mode support throughout the application
- Accessible UI components meeting WCAG guidelines

Database Structure

- users - User accounts with authentication credentials

- sessions - Session management for authentication
- destinations - 25 curated travel destinations with metadata
- trips - User-created trips with dates and budgets
- itineraryItems - Day-by-day trip activities and plans
- expenses - Trip expense tracking with categorization
- flightBookings - Flight reservation records (demo mode)
- passengers - Passenger information for flight bookings

Security & Best Practices

- Secure password hashing using bcrypt algorithm
- Session-based authentication with secure cookies
- SQL injection protection via parameterized queries
- Type-safe database operations with Drizzle ORM
- Environment variable management for API keys
- CORS configuration for API security
- Input validation on both client and server
- Prepared statements for all database queries

Current Status

- [x] Fully functional destination discovery and browsing
- [x] Real-time flight search with professional UI
- [x] Complete trip planning and itinerary management
- [x] Comprehensive visa requirement checking
- [x] Budget tracking and expense management
- [x] Multi-step flight booking wizard (demo mode)
- [x] User authentication and session management
- [x] PWA capabilities with offline support
- [x] Responsive design across all devices
- [x] Production-ready database schema

Ready for Production Enhancement

- Stripe payment integration for live bookings
- Email confirmation system for bookings
- Enhanced seat selection with visual seat maps
- Hotel and car rental integration
- Social features (trip sharing, recommendations)
- Mobile app versions (iOS/Android)
- Advanced analytics and reporting
- Multi-language support
- Travel insurance integration
- Loyalty program features

Travez - Making Travel Planning Effortless

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