Polar Bear Chatbot – Documentation
Pluto in Aquarius Internship – Fall 2025
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1. Overview

The **Polar Bear Chatbot** was developed as part of the Building Block Assignment for the Pluto in Aquarius Internship (Fall 2025). The project goal was to design and implement a responsive, bilingual (English/Spanish) web chat that simulates conversations between the user and a polar bear for Arctic intake processes. This chatbot is built with modern web technologies and supports AI-powered replies integrated with OpenRouter (DeepSeek AI) for a dynamic, intelligent response. The UI includes export, new chat, an inline language toggle, and settings.

Key files:

- index.html – UI, styles, quick actions, language toggle
- js/ai-service.js – AI integration, bilingual system prompt, fallback
- js/chat-manager.js – Chat flows, states and events, exporting transcripts, analytics logging
- js/database.js – store conversations, settings, and analytics

2. Features & Capabilities

Feature	Description
AI-Powered Responses	Uses OpenRouter (DeepSeek AI) to generate intelligent, contextual replies.
Fallback System	Keyword + fuzzy-matching for continuity without AI.
Responsive UI	Works across desktop, tablet, and mobile with modern design.
Offline Mode	IndexedDB + service worker for offline chat and data recovery.
Bilingual Support	Toggle between English and Spanish.
Export/Import	Save or share conversation transcripts as JSON.
Analytics	Tracks conversation count, sessions, AI vs fallback usage.
Configurable Settings	Manage API key, AI mode, and auto-save preferences.

3. Technical Implementation

The chatbot leverages browser-native technologies to remain lightweight and easy to deploy:

- Frontend: HTML5, CSS (custom properties for theming), JavaScript ES6.
- Data Persistence: IndexedDB with separate stores for conversations, settings, and analytics.
- AI Integration: REST API calls to OpenRouter for DeepSeek Chat, with configurable parameters (temperature, tokens)
- Fallback Engine: Predefined responses with topic detection and fuzzy string matching for robustness.
- Offline-first: Static file caching with a service worker, ensuring availability without internet.
- Error Handling: Global handlers for runtime and promise errors, with user-friendly notifications.
- New Chat: Clears messages and restores the welcome block with 5 quick actions

4. User Instruction

Option 1: Simple Setup (No AI)

- Clone or download this repository
- Open index.html in your web browser
- Click the globe button (EN/ES) to switch language
- Start chatting using fallback responses

Option 2: Full AI Setup

- Get an OpenRouter API key from OpenRouter (Free access to DeepSeek AI)
- Open the chatbot in your browser
- Click the "Settings" button
- Enter your OpenRouter API key
- Toggle "AI Mode" on

5. Common Issues & Fixes

AI not working

- Check your OpenRouter API key
- Ensure you have OpenRouter credits
- Check browser console for errors

Database errors

- Clear browser data and try again
- Check IndexedDB is supported
- Try in incognito mode

Styling issues

- Clear browser cache
- Check CSS is loading properly
- Try different browser