PRODUCT REQUIREMENTS & SPECIFICATION DOCUMENT

Product: AI Chat-Based Medical Tourism Platform (MVP)

Version: 1.0

Date: November 2025

1. PRODUCT OVERVIEW

Objective: Build an MVP chat platform for medical tourism (dental, cosmetic, fertility).

The user interacts via a ChatGPT-style interface to discover clinics from your own inventory,

and optionally hotels and flights from external OTAs (Expedia, Booking.com, Skyscanner, Amadeus, etc.).

Core Flow: User types → System understands → Fetches results → Displays options as interactive chat cards → User saves, requests a call, or books.

Business Model: Clinics generate commission; hotels and flights generate affiliate revenue.

Goal: Deliver a working MVP integrating your clinic inventory and OTA feeds with compliant, factual AI responses.

2. SYSTEM OVERVIEW & ARCHITECTURE

Architecture Flow:

User → Chat UI → Backend (/chat endpoint) → Intent Extraction → Clinic Search (DB) → Hotel & Flight Search (OTAs)

→ Merge & Rank → LLM Composer → Policy Filter → Chat UI Display.

Tech Stack:

Frontend: WeWeb or FlutterFlow

Backend: FastAPI (Python) or Xano

Database: PostgreSQL with pgvector

LLM: OpenAI GPT-4 or Anthropic Claude

OTA APIs: Expedia, Booking.com, Skyscanner

Hosting: AWS or DigitalOcean

3. USER EXPERIENCE FLOW

User types free-form text requests such as “IVF in Georgia with hotel and flights.”

The assistant extracts intent, retrieves results from the DB and OTAs, composes structured replies, and displays results as cards.

Cards have actions: Save, Request Call, Book (via OTA).

4. DATA MODEL

Local Tables: clinics, doctors, procedures, packages, availability, content_chunks, leads, ota_referrals.

Each table includes unique IDs, core attributes, and standard foreign keys.

OTA tables not stored locally; results fetched in real time.

5. API CONTRACTS

/chat: accepts user_message, returns structured JSON with messages and clinic/hotel/flight cards.

/lead: stores leads with contact info and selected offer.

/save: saves an offer to session with shareable link.

6. OTA INTEGRATIONS

Integrations:

- Expedia Rapid API: hotel search by city/date/price
- Booking.com Partner API: hotel details with affiliate link
- Skyscanner or Amadeus API: flight data by origin/destination/date

Responses normalized into standard schemas and merged before sending to the LLM composer.

7. LLM PROMPTS

Intent Extraction: Extract procedure, city, budget, date range, and origin city.

Answer Composer: Use only provided data, create cards for clinics, hotels, flights.

Policy Filter: Remove or rephrase content violating country or medical rules.

8. POLICY & COMPLIANCE

Rules:

1. Clinics only from verified database.
2. No medical advice; only curated facts.
3. Follow country rules on sensitive topics.
4. No personal data in AI responses.
5. Keys stored only in backend.
6. User consent for data storage.

9. PERFORMANCE TARGETS

Response latency: under 5 seconds (P95)

Availability: 99%

Zero hallucination tolerance.

OTA API success rate above 95%.

Lead conversion target above 20% of sessions.

10. DELIVERY PLAN

Week 1: Database setup, mock endpoints.

Week 2: LLM intent + OTA integration.

Week 3: Chat UI build and linking.

Week 4: QA, policy gate, and deployment.

11. FINAL HANDOVER

Deliverables:

- Source code with setup instructions
- Postman collection for APIs
- CSV templates for clinic import
- Deployment and environment guide
- Demo video optional