





HackOrbit2025

Apex Pioneers

THEME & PROBLEM STATEMENT

Theme: Healthcare Technology

Problem Statement: Bridging the Gender Gap in Digital Healthcare.

Despite growth in health tech, women's healthcare is often underserved by digital tools that are generic, opaque, and male-biased. Most AI-based tools today fail to address the specific needs of female users as they:

- Are not tailored to **female biology**, trained on gender-neutral or male-biased datasets.
- Rely on black-box machine learning models that don't explain their reasoning.
- · Lacking in personalization, especially around key health issues.

As a result, millions of women struggle with:

- Delayed diagnoses
- · Lack of clarity around symptoms and what they mean.
- Limited access to trustworthy, and privacy-conscious digital health tools.

PROPOSED SOLUTION

FemiVerse is a rule-based AI platform designed to deliver transparent, explainable, and personalized health insights tailored specifically to women.

In a world where most digital health tools are built on male-dominant data or one-size-fits-all ML models, FemiVerse tailors it's approach specifically to conditions that uniquely or disproportionately affect women.

Instead of relying on **black-box machine learning models**, FemiVerse uses a clinical logic engine powered by **if-then rules** and **expert-curated decision trees**.

This ensures that every suggestion or outcome provided is:

- Traceable (users can see why they got that output),
- · Clinically grounded, and
- Customized for symptoms commonly faced by women.

TECH STACK

LANGUAGES

- TypeScript Strongly typed JavaScript
- JavaScript (ES6+) Client-side interactivity
- CSS (via Tailwind) Styling

• DEV TOOLS

- ESLint Linter for consistent code style
- Prettier Code formatter
- Tailwind Animate Utility classes for animations
- Vercel Deployment

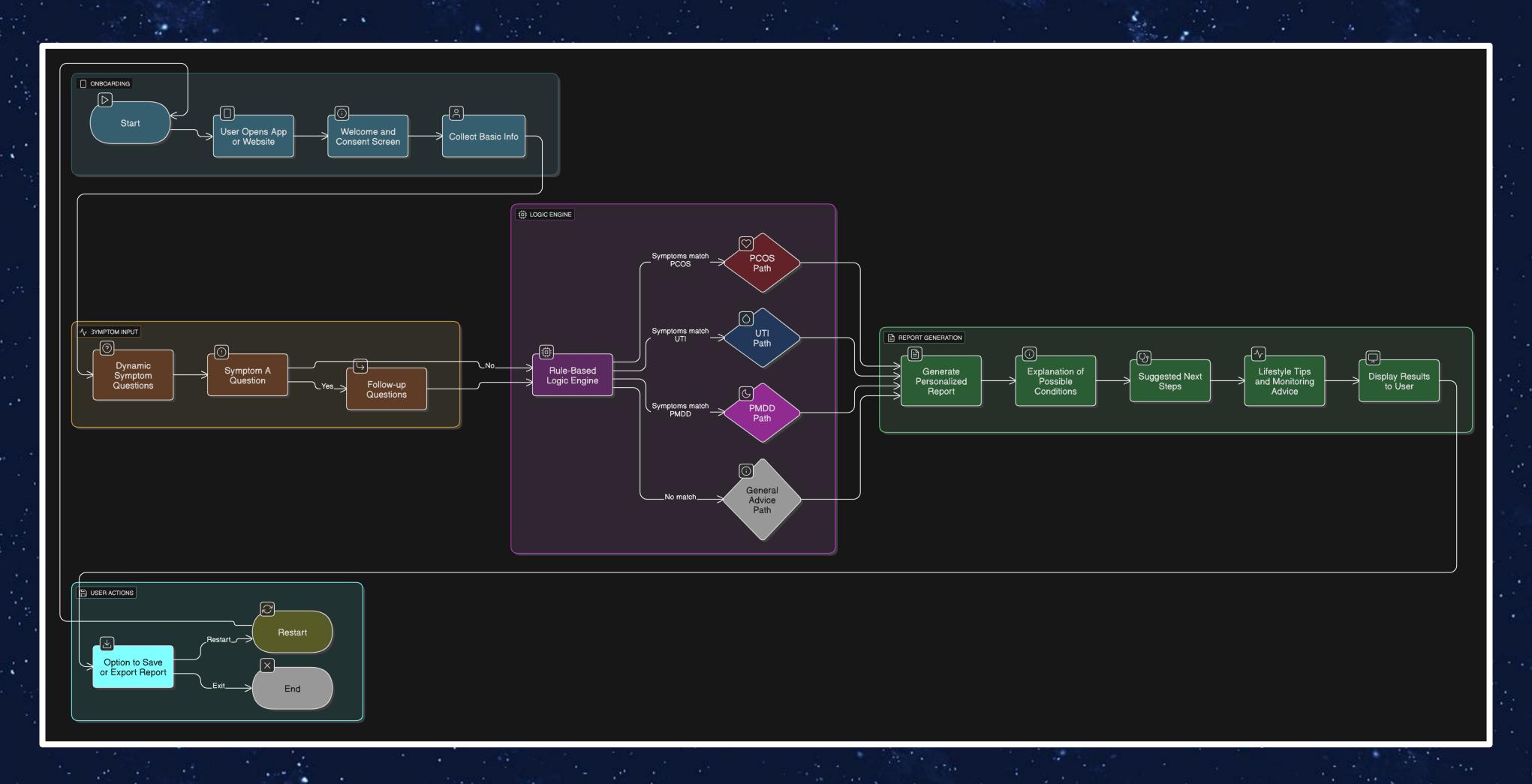
FRONTEND

- Next.js 15
- React 18
- Tailwind CSS.
- shaden/ui
- Radix UI
- Lucide React
- Class Variance Authority (CVA)

AI & LOGIC

- Custom Rule-Based Engine Deterministic symptom logic (non-ML)
- Google Gemini API Conversational AI capabilities

FEMIVERSE WORKFLOW DIAGRAM



Live Preview of FemiVerse: Prototype — FemiVerse

FEATURES AND NOVELTY

- 1. Female-Centric Symptom Checker: Intelligently guides women through potential health conditions like PCOS, PMDD, and more.
 - 2. Explainable Decision Logic: No guessing. Every output comes with a plain-language explanation, empowering users with understanding, not just suggestions.
 - 3. <u>Personalized Reports</u>: Provides clear next steps, suggested tests, and lifestyle tips.
- 4. User-Friendly Interface: Minimalist, intuitive UI built with Tailwind and accessible components.
- **5. Privacy-Focused:** No sign-in required, no tracking, and all data stays on the user's device.
- 6. Secure AI Integration: Uses Google Gemini with local API key handling, no server storage.

DRAWBACK AND SHOWSTOPPERS

- 1. Limited Condition Coverage:
 Only supports a defined list of women's health issues (e.g., PCOS, PMDD), which may not cover all symptom variations or overlapping conditions.
- 2. Not Suitable for Emergencies:
 It is not built to handle urgent or life-threatening conditions, which may mislead users in critical situations.
- 3. No Long-Term Tracking:
 Due to its session-based and privacy-first design, the platform doesn't store user history, trends, or progress over time.

- 1. Fragmented Female Health Data
 Standards: Lack of global
 standardization for female health
 data complicates building
 universally accurate medical rules.
- 2. Device & Browser Compatibility
 Issues: Modern tech stack may
 cause compatibility issues on older
 devices and browsers.
- 3. Maintenance Complexity:
 Scaling and maintaining extensive rule logic becomes increasingly complex and error-prone.

APEX PIONEERS

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Illank you