Tier 9 – Item 10
Pharmacologically-Aware Adaptive Reflex Engine (PAARE)
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Overview

PAARE is an advanced adaptive logic engine designed to respond to users who have already received formal psychiatric diagnoses and may be prescribed psychotropic medications. It leverages existing Tier 1 through Tier 9 logic systems developed within the Virtual Simulated Clinician (VSC) framework, but introduces an additional layer of pharmacological responsiveness without relying on DSM, NLP, or other trademarked language systems.

Core Logic Structure

1. Intake Recognition Layer:
   - Receives user diagnosis (ICD-compatible code inputs or labeled diagnostic patterns)
   - Captures trauma history, prior suicide assessments, and psychiatric evaluation flags
   - Logs medication name (generic), class (SSRI, SNRI, antipsychotic, mood stabilizer), and duration

2. Pharmacological Pattern Mapper:
   - Adjusts user-facing prompts based on medication class effects (e.g., serotonin activation, mood stabilization latency)
   - Incorporates potential symptom volatility windows (e.g., weeks 2–4 of SSRI ramp-up)
   - Avoids clinical labels, instead triggering emotional regulation logic chains

3. Reflexive Behavioral Modulator:
   - Deploys adjusted logic sequences drawn from Tier 4–8 libraries (e.g., motivation logic, hesitancy recognition, derealization support)
   - Applies branching logic similar to Bandersnatch (adaptive storytelling)
   - Introduces delay-response mechanisms and mirrored empathy loops for high-volatility scenarios

4. Outcome Routing:
   - Sends logic sequence to documentation engine for DAP format export
   - Time-stamps reflex loop triggers based on pharmacological metadata
   - Offers optional referrals to live psychiatric check-in or peer follow-up

Constraints and Exclusions

- PAARE does not use DSM-5 or NLP syntax
- Avoids naming any medication brand names
- Does not issue clinical advice; functions only within simulated therapeutic sequence
- Complies with simulation-only use cases intended for wellness support and documentation automation

Use Case Scenarios

• A user on an SSRI experiences increased anxiety in week 3 — PAARE adjusts logic to introduce grounding techniques earlier than usual
• A user with a flagged trauma history is on a mood stabilizer — PAARE suppresses

reflexive empathy mirroring and increases neutral narration
• A user with prior suicidal ideation is identified as medication noncompliant — PAARE triggers a check-in sequence and logs an automated escalation prompt