**Title: Virtual Physio Assistant – AI Agent for Remote Physiotherapy Support**

**1. Domain: Physiotherapy**

Physiotherapy focuses on helping patients recover from injuries, surgeries, or chronic conditions through guided physical exercises. A major challenge in this domain is **ensuring patients follow prescribed exercises correctly and consistently at home**, where therapists can’t supervise them directly.

**2. Problem: Limited Follow-Up and Exercise Adherence**

* Many patients **forget or incorrectly perform** home exercises.
* Therapists have limited time and resources for **frequent one-on-one check-ins**.
* Without proper follow-up, recovery slows, and injuries may recur.
* **Manual progress tracking** is inefficient and often inaccurate.

**Example Scenario:**
A patient recovering from knee surgery skips or misdoes their exercises, resulting in stiffness and a delayed return to mobility.

**3. Proposed AI Agent: Virtual Physio Assistant**

A smart, autonomous agent built into a **mobile app or website** that:

* **Guides** patients through daily exercises with **video demonstrations**.
* Uses **computer vision** (optional) to check posture and movement.
* Sends **reminders** and motivational messages.
* Allows patients to **ask questions** (e.g., “What should I do if my back hurts?”).
* Logs exercise activity and pain levels for therapists to review later.

The agent is **interactive**, uses **natural language** (text or voice), and provides **instant feedback**.

**4. Impact: Measurable Outcomes**

* ✅ **Patient Adherence:** Studies show that tech-enabled follow-ups can improve exercise completion by **up to 50%**, especially when reminders and feedback are included.
* ✅ **Therapist Efficiency:** Therapists save **30–50% of their time**, since the agent handles routine interactions and tracking.

**Other Benefits:**

* Standardized guidance reduces human error.
* Patients feel more supported and engaged.
* Therapists get access to data on patient progress between sessions.

**5. Bonus – User Interaction Sketch (Optional Idea)**

* **Interface:** Mobile app, tablet, or web platform.
* **User says:** “Show me how to do the ankle stretch again.”
* **AI replies:** “Here’s a video of the correct technique. Let’s do it together.”
* The agent counts reps, tracks time, and can even detect form via the device’s camera (if enabled).