

PHARMA BRIDGE



- Project Title: Pharma Bridge
- Domain: Healthcare
- Team Name: BlockBusters
- Team Members:
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Problem Statement

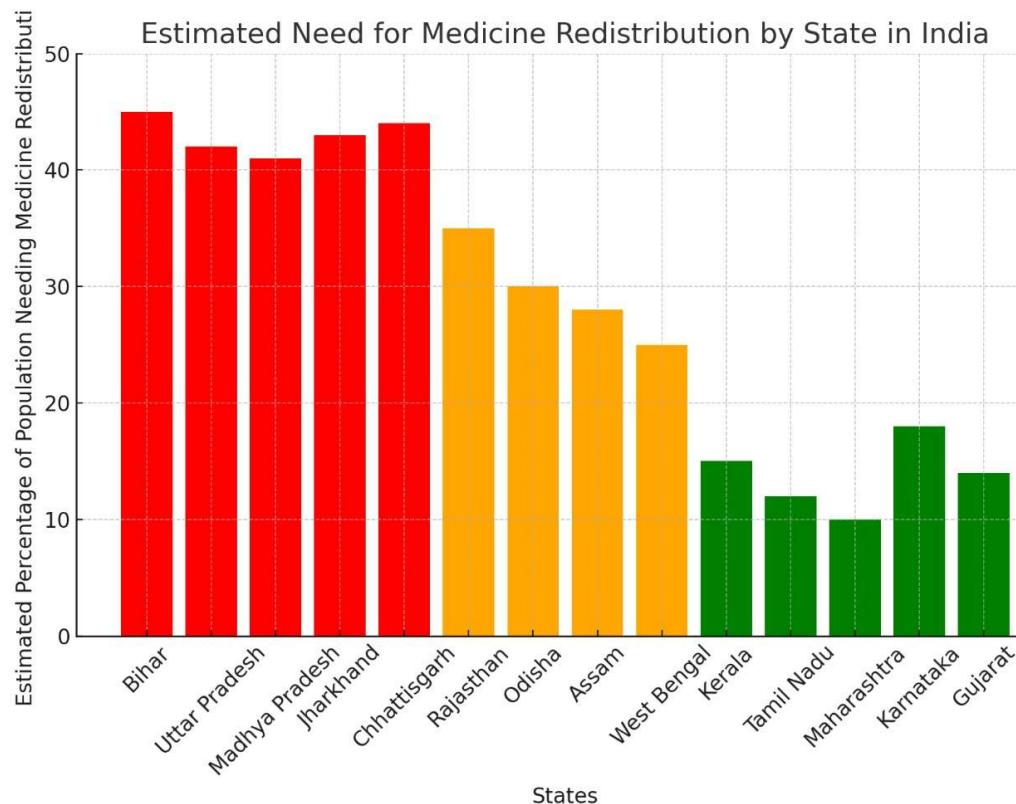


Healthcare - Problem Statement 2: Medicine Redistribution System

Description: How can we create a system to collect unused, non-expired medicines and redistribute them to those in need?

Objectives:

1. Efficient Medicine Collection & Redistribution
2. Smart Matching & AI-Based Optimization
3. Transparency & Trust in the System
4. User-Friendly & Scalable Digital Platform
5. Improve Healthcare Access & Reduce Medicine Wastage



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Ideation

Every year, **millions of medicines** from pharmaceutical companies and healthcare centers **go to waste due to expiry**, while thousands of NGOs struggle to access essential medicines for underprivileged communities.

A dedicated **connector** platform is required to bridge the gap between large pharmaceutical companies and NGOs, ensuring that near-expiry **medicines are donated** and utilized efficiently in **transparent and secured manner** resulting in reducing waste, saving lives.



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Innovation



- We are developing a groundbreaking platform that unites pharmaceutical companies and NGOs with a view to facilitating near-expiry drug donation.
- Millions of drugs go to waste annually while there are thousands of NGOs that cannot access vital supplies. Our platform bridges this gap by allowing companies to post excess drugs and NGOs to request or claim them.
- Through AI-enabled matching, expiry tracking on automatic, and secured logistics, we ensure efficient and timely delivery. Blockchain authentication assures greater transparency and accountability to rule out any malpractices.
- By making use of technology and CSR partnerships, we seek to reduce wastage of pharmaceuticals and raise access to medicine for the vulnerable.

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WORKFLOW



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Approch(Technical)

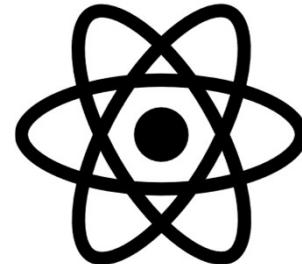
TECHNOLOGY STACK

1 React.js (Frontend) → Users register donations, request medicines and track distributions.

2 Node.js + Express (Backend) → Processes requests, stores data, and handles business logic.

3 MySQL (Database) → Stores donor, medicine, and recipient records securely.

4 AI (Intelligence Layer) → Automates medicine matching, expiry detection, and verification.



Conclusion



- ✓ **Efficient Medicine Collection & Distribution** – Collects unused, non-expired medicines and redistributes them to NGOs and healthcare centers.
- ✓ **Technology-Driven Solution** – Uses React.js, Node.js + Express, MySQL, and AI for seamless donation, verification, and tracking.
- ✓ **AI-Powered Smart Matching** – AI optimizes medicine allocation, prioritizing urgent needs and minimizing wastage.
- ✓ **Transparency & Accessibility** – Ensures a trusted, real-time monitoring system for donors, NGOs, and admins.
- ✓ **User-Friendly Platform** – Provides a simple and intuitive interface for donors, NGOs, and healthcare organizations to easily participate.
- ✓ **Medicine Expiry Management** – AI-based expiry prediction ensures timely distribution and prevents wastage of medicines.
- ✓ **Scalability & Future Expansion** – Can be expanded to new cities, states, or even globally, integrating more NGOs and healthcare partners.

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