Loop x IIT-B Hackathon

the problems we face in indian healthcare

Healthcare in India is full of contradictions. We have world-class hospitals and doctors, but also overcrowded government clinics, long queues, and patchy rural coverage. Patients travel hours for basic tests, while city hospitals drown in paperwork. Records are scattered across labs, clinics, and apps—rarely connected, often lost.

Doctors see dozens of patients in a single day, leaving little time to explain reports or answer every question. Insurance claims drag on for weeks because of repeated paperwork and unclear processes. Mental health care remains out of reach for many, with stigma and limited professionals adding to the challenge. Meanwhile, researchers and innovators struggle to access the labelled data needed to train safe and reliable medical AI.

These are just a few snapshots—there's so much more. from language barriers and affordability gaps to broken information systems and understaffed facilities, the journey through healthcare in India is often stressful, slow, and confusing for both patients and providers.

This is where technology can play a transformative role. With modern AI, machine learning, and digital tools, we can start addressing these pain points: organizing scattered records, making sense of medical reports, enabling faster decisions, simplifying operations, and bringing care closer to people in every corner of the country.

The hackathon is an invitation to imagine and build these solutions. You don't need to be a medical expert—just curious, creative, and willing to tackle big, messy problems. Together, we can explore how technology can make healthcare in India smarter, simpler, and more human.

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overview

The loop hackathon is a 2-day overnight build sprint where students will design and prototype cutting-edge ai/ml solutions for healthcare. the event brings together engineers, designers, and healthcare enthusiasts to create impactful projects under five themes:

1. **Access for everyone**
    - Millions of people can't get timely care because of distance, cost, or poor connectivity. the challenge is to make healthcare reachable and responsive for all, no matter where they live or what device they use.
2. **Information that makes sense**
    - Medical records, test results, and advice are often scattered and hard to understand. the challenge is to give patients and providers information that is clear, connected, and ready when needed.
3. **People and technology working together**
    - AI can help only if humans guide, check, and improve it. the challenge is to design ways for people and machines to collaborate so that healthcare stays accurate, fair, and trustworthy.
4. **Smoother systems and operations**
    - From insurance claims to hospital scheduling, everyday processes are slow and full of paperwork. The challenge is to remove these bottlenecks so doctors and patients can focus on care instead of admin.

More details around the themes:

THEME	PROBLEM_ STATEMENT	POSSIBLE_AREAS	IMPACT_FOCUS	DATA_NEEDS	NOTES
access for everyone	millions of people can't get timely care because of distance, cost, or poor connectivity. The challenge is to make healthcare reachable and responsive for all, no matter where they live or what device they use.	telehealth platforms, offline-first mobile tools, ai triage on low-cost devices, language localization, appointment & transport coordination	expand primary care coverage, reduce emergency response time, support rural & underserved communities	synthetic health data, basic geospatial info, open demographic datasets; avoid real patient pii	projects can be hardware, software, or hybrid; encourage multilingual & multi-device support
information that makes sense	medical records, test results, and advice are often scattered and hard to understand. The challenge is to give patients and providers	record aggregation, natural language summaries, intelligent search, secure data sharing, intuitive dashboards	reduce time doctors spend finding/typing information, empower patients to understand their own health	public medical literature, de-identified lab/report samples, open ontologies like snomed/umls	solutions should emphasize plain language and multi-language support

	information that is clear, connected, and ready when needed.				
people and technology working together	ai can help only if humans guide, check, and improve it. The challenge is to design ways for people and machines to collaborate so that healthcare stays accurate, fair, and trustworthy.	human-in-the-loop annotation platforms, active learning pipelines, expert review dashboards, bias detection & correction tools	improve model accuracy, create high-quality datasets, build trust between clinicians and ai systems	de-identified images, text, or audio; tools for annotation and version control	highlight audit trails, explainability, and role-based access
smoother systems and operations	from insurance claims to hospital scheduling, everyday processes are slow and full of paperwork. The challenge is to remove these bottlenecks so doctors and patients can focus on care instead of admin.	claims automation, queue management, predictive scheduling, supply-chain optimization, payment simplification	shorter wait times, faster insurance settlement, lower admin overhead for hospitals and clinics	synthetic claims and operations data, scheduling logs, public logistics datasets	solutions can target hospitals, clinics, pharmacies, or insurance providers

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registration & idea submission

- Registrations open 2 weeks before the event.
- Teams of 1-3 members. interdisciplinary teams (tech + design + medical/biotech background) encouraged.
- During registration, teams submit a short proposal (max 300 words) describing their idea and which theme it fits.
- **Candidates are welcome to propose ideas that are not an exact match to any one theme but are broadly relevant to AI in healthcare, so long as they clearly explain the connection and potential impact.**

- Loop will shortlist teams one week before the hackathon based on creativity, feasibility, and relevance.
- Shortlisted teams receive confirmation, pre-event reading material, and dataset links.

After shortlisting the ideas, each selected team will have a brief mentor call or chat before the event. Mentors will share feedback, highlight possible technical hurdles, and suggest resources so that every project starts with a clear direction and a realistic path to success.

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team structure

- 1-3 members per team.
- Everyone can use generative ai tools (chatgpt, copilot, etc.) as long as they document usage in their final submission.

judging criteria

- **impact** – long-term potential for success, growth, and positive effect on healthcare.
- **technical implementation** – depth of engineering, correct use of AI/ML, and working prototype quality.
- **creativity** – originality and uniqueness of concept or approach.
- **pitch quality** – clarity and effectiveness of the final presentation and demo.

follow-up

- Winning teams receive prize money, cloud credits, and an optional fast-track interview for internships at loop.
- Top projects may be invited to continue development with loop product teams.
- Publish a post-event blog with photos, highlights, and project summaries.

rewards

- The winning team will receive 1 Lakh cash prize.
- The runner up team will get apple homepod speakers.

- The participants will be getting a chance to intern/work with the high performing team at Loop and get mentorship from Harpreet Rai, President, Loop Health.

Date	Time	Activity	Details
1st Nov	12:00 PM (Kickoff hackathon)	Introduction	About Loop
1st Nov		Problem Statement Discussion	Case studies & examples
1st Nov		Rules & Guidelines	For the hackathon
1st Nov		Teams Review	2-3 teams
1st Nov		Q&A	Wrap-up session
2nd Nov	2:00 PM	Accept Submissions	Collect all final submissions
2nd Nov	2:00-4:00 PM	Internal Evaluation	Evaluate the submissions internally
2nd Nov	4:00-7:00 PM	Presentations	Teams present their solutions
2nd Nov	7:00-8:00 PM	Results Declaration	Winners announced