Problem Statement and Team Details

Problem statement: India’s sports talent ecosystem is brimming with potential but remains fragmented and inaccessible, especially for athletes from rural, tribal, and marginalized communities.

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Team Leader Name: Sourabh sha

Institute Name: Inderprastha Engineering College

Team Leader Email ID

Problem and Solution

•India’s sports talent ecosystem is full of potential but faces major gaps:

•Fragmented & Inaccessible – Athletes from rural, tribal, and marginalized communities lack exposure.

•No Standardized Tools – Absence of scientific, consistent talent assessments.

•Limited Coaching & Monitoring – Coaches struggle with scattered data and no unified performance tracking.

•Uncertain Career Pathways – Families are unsure about funding, support, and athlete development.

•Socio-Economic & Gender Barriers – Many athletes, especially girls, are excluded from opportunities.

Solution

- **AI-Powered Sports Platform → Enables remote talent discovery through video-based AI skill assessments.**
- **Standardized, scientific performance tracking → Fair evaluations with AI-driven feedback.**
- **Dual dashboards → Athletes monitor growth; coaches access analytics, injury risk alerts & milestones.**
- **Inclusive & Mobile-First → Reaches rural, tribal, and marginalized athletes with low-cost access.**
- **Gamified engagement & digital community → Motivates participation, especially for girls & youth.**
- **Data-driven ecosystem → Aggregates performance data securely for athletes, coaches, and institutions.**

Methodology & Implementation

1.Research → Identify gaps & gather inputs.

2.Design & Development → Build app, dashboards & AI models.

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4. Implementation & Scaling → Phase-wise rollout with partnerships.

5. Continuous Improvement → Train AI, add funding & mentorship features

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Technology Used

- Artificial Intelligence (AI/ML):Video-based talent assessment, cheat detection, performance analytics, personalized training.
- Mobile-First Web App:Lightweight, accessible platform for rural and urban users.
- Computer Vision:Analyzing body movement and skills from uploaded videos.
- Cloud Computing:Secure data storage, scalability, and role-based access.
- Gamification Tools:Leaderboards, challenges, and community features for engagement.

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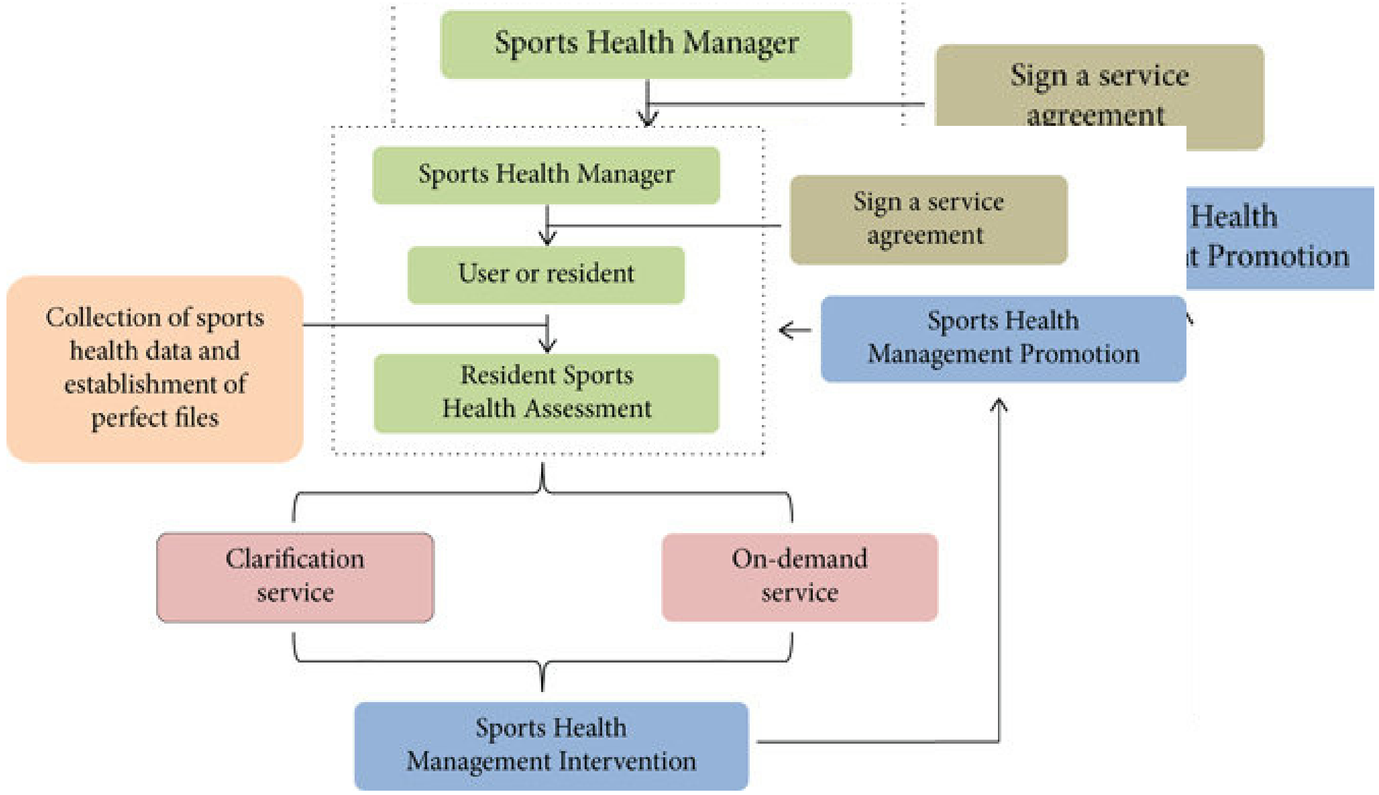
Flowchart & Supporting Images




```
const express   require('express');
const router   express.Router();
const Assessment = require('../models/Assessment');
const multer = require('multer');
const upload = multer({ dest: 'uploads/' });
// Save assessment
router.post('/submit', upload.single('video'), async (req, res) => {
try {
// payload contains metrics computed by frontend
const { athleteId, testType, metrics, score } = req.body;
const videoUrl = req.file ? req.file.path : null; // for demo
const a = await Assessment.create({ athleteId, testType, metrics:
JSON.parse(metrics), score, videoUrl });
res.json({ success: true, assessment: a });
} catch (err) {
res.status(500).json({ err: err.message });
}
});
// Get athlete assessments
router.get( /athlete/:id', async (req, res) => {
const list = await Assessment.find({ athleteId: req.params.id }) sort({
createdAt: -1 });
res.json(list);
});
```

Feasibility and Market Use

Feasibility

1.Technical Viability → Mobile-first + AI video assessment already proven in fitness/edtech apps.

2.Low-Cost Scalability → Cloud hosting & open-source AI reduce infra costs.

3.Rural Reach → Works on smartphones with basic internet, ensuring accessibility.

4.Partnership Potential → Tie-ups with schools, academies, and NGOs for pilot rollouts.

Market Use

1.Athletes → Fair trials, performance tracking, equal opportunity regardless of location.

2.Coaches & Academies → Data-driven insights, talent pipeline management.

3.Sports Federations → Standardized assessments for national scouting.

4.Parents & Families → Transparency in athlete growth and funding needs.

5.Government & NGOs → Promote inclusivity, rural participation, and gender equity.

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Conclusion

1. India’s sports ecosystem has talent but lacks accessibility, standardization, and inclusivity.
2. An AI-powered, mobile-first platform can democratize talent discovery and scientific performance tracking.
3. The solution empowers athletes, coaches, federations, and sponsors with data-driven insights.
4. With scalability, inclusivity, and community engagement, this ecosystem can unlock the next generation of sports champions.
5. Theme: “Democratizing Sports: AI for Every Athlete, Everywhere.”