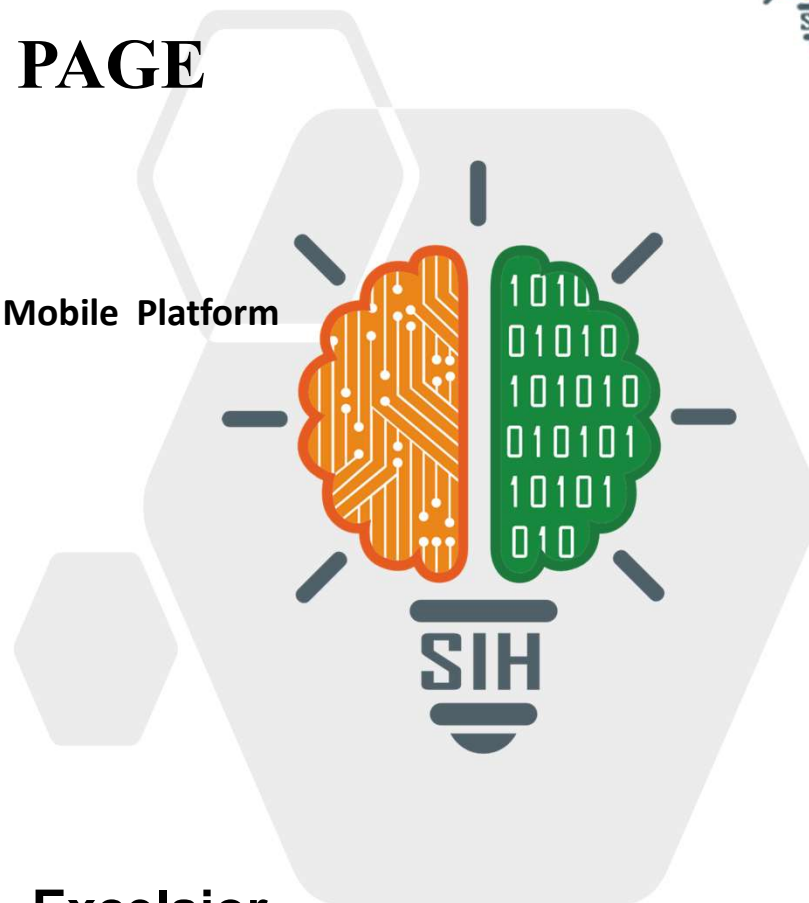# SMART INDIA HACKATHON 2025
TITLE PAGE

- **Problem Statement ID – SIH25073**

- **Problem Statement Title-** AI-Powered Mobile Platform
  for Democratizing Sports Talent Assessment

- **Theme-** Fitness & Sports

- **PS Category- Software**

- **Team ID-**

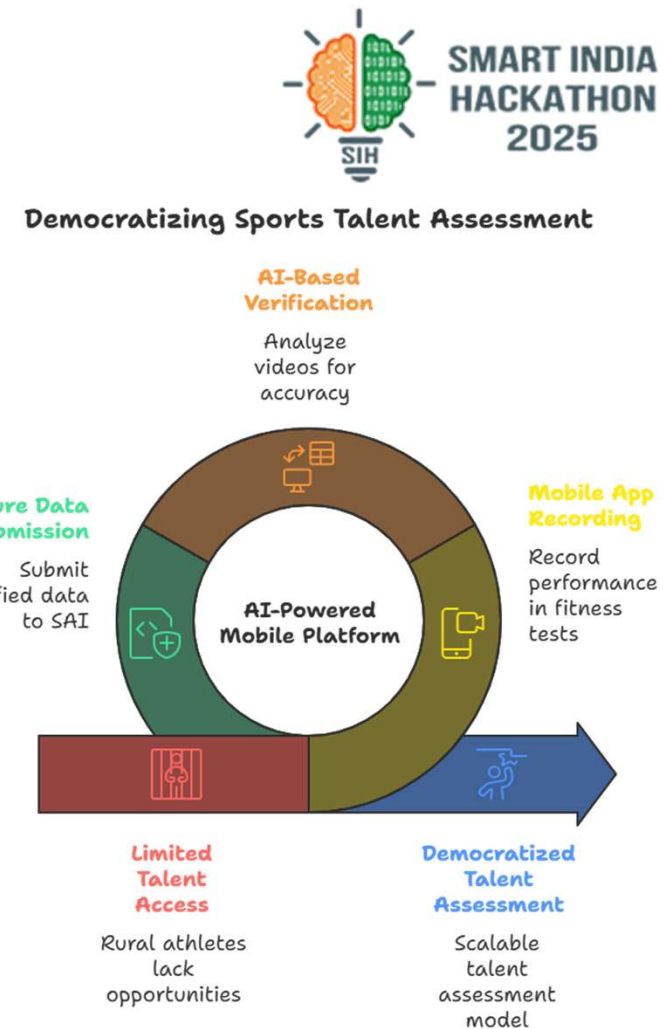- **Team Name (Registered on portal) - Excelsior**

Excelsior

IDEA TITLE

❖ Proposed Solution (Describe your Idea/Solution/Prototype)

AI-Powered Mobile Platform: Athletes record tests, AI verifies, secure data goes to SAI.

Transforms Access: Converts limited, infrastructure-dependent assessment into democratized, scalable opportunity for all

Mobile-First AI Lab: Smartphone-based, objective performance validation via AI.

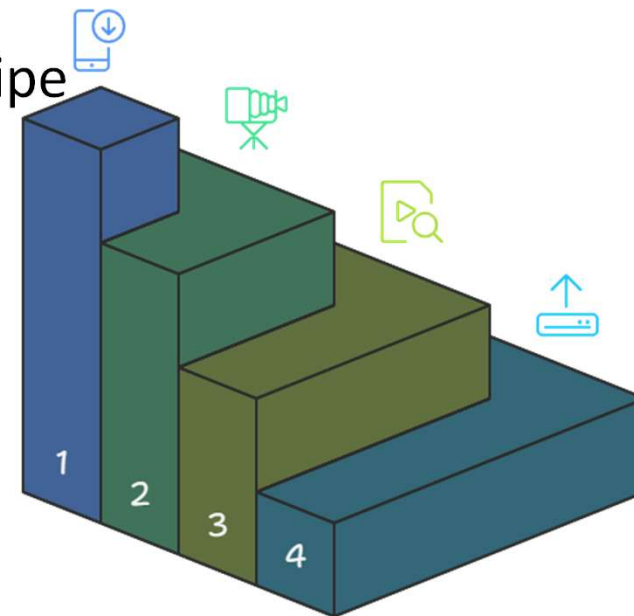# TECHNICAL APPROACH

Mobile App: Flutter (for iOS & Android)

On-Device AI: TensorFlow Lite & MediaPipe

Backend: Python (Django Framework)

Database: PostgreSQL

Cloud: AWS or Google Cloud

Steps to Implement Sports Talent Assessment App

Download App
Athletes download the app to start the assessment process.

Record Performance
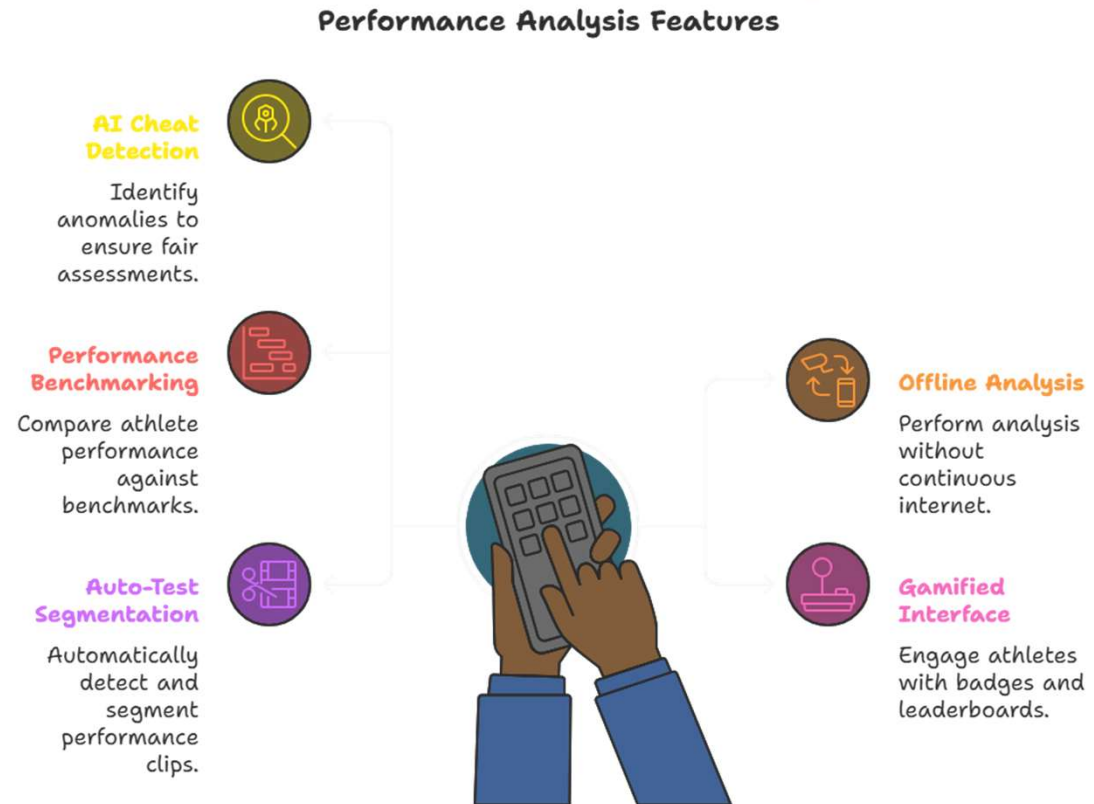Athletes record videos of their performance in fitness tests.

AI Verification
AI analyzes videos for accuracy and authenticity.

Submit Data
Verified data is securely submitted to SAI servers.

FEASIBILITY AND VIABILITY

- **AI Accuracy**: Provide very clear, on-screen visual guides for set up and tests.

- **Verifier (Coach) Adoption** : Engage with local leagues and coaching associations.

- **Internet Connectivity**: Allow for offline data capture that syncs with the server when a connection is available.

Performance Analysis Features

AI Cheat Detection
Identify anomalies to ensure fair assessments.

Performance Benchmarking
Compare athlete performance against benchmarks.

Auto-Test Segmentation
Automatically detect and segment performance clips.

Offline Analysis
Perform analysis without continuous internet.

Gamified Interface
Engage athletes with badges and leaderboards.

IMPACT AND BENEFITS

- **For Athletes**: Provides fair opportunity and national visibility based on pure merit.

- **For Scouts & SAI**: Creates a wider, more efficient, and data-driven talent pipeline.

- **Social**: Fosters a transparent, merit-based sporting culture free from bias.

- **Economic**: Creates new career pathways for athletes and maximizes national investment in sports.

Unveiling the Impact of Sports Talent Assessment

Sports Talent Assessment
Assessing sports talent across diverse geographical locations.

1 **Democratization**
Expanding access to sports talent assessment universally.

2 **Scalability**
Providing scalable solutions for mass talent identification.

3 **Efficiency**
Enhancing efficiency in athlete evaluation processes.

4 **Transparency**
Ensuring transparency in sports talent discovery methods.

Made with Napkin

RESEARCH AND REFERENCES

- **Google AI's MediaPipe Framework-** https://ai.googleblog.com/2019/08/mediapipe-on-device-real-time hand.html

- **TensorFlow Lite Documentation**: https://www.tensorflow.org/lite

- **Journal of Sports Sciences -** https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3737856/

- **SAI's Khelo India Fitness Assessment Protocols** – https://www.google.com/search?q=https://kheloindia.gov.in/web/ assets/pdf/Final-Khelo-India-Fitness-Book.pdf