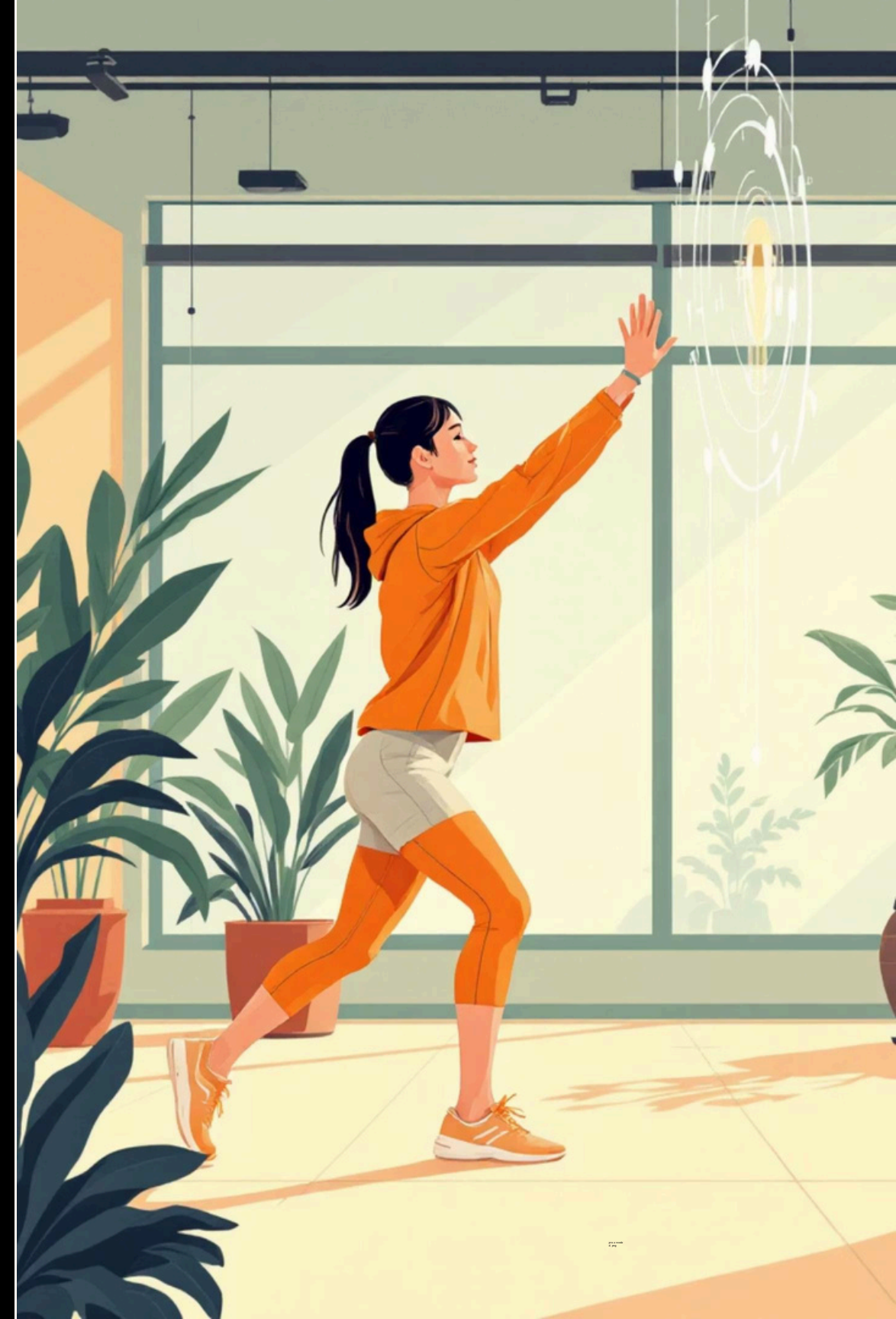


KinetiX: AI-Powered Fitness Application

HackOdisha5.0-2025

Team : *DataDynamos*

Transforming fitness with real-time AI
posture detection and personalized
coaching



The Problem



Poor Form

Millions suffer from posture issues due to desk jobs and unsupervised workouts

No Feedback

Existing fitness apps track activity but don't correct form in real-time

Inaccessibility

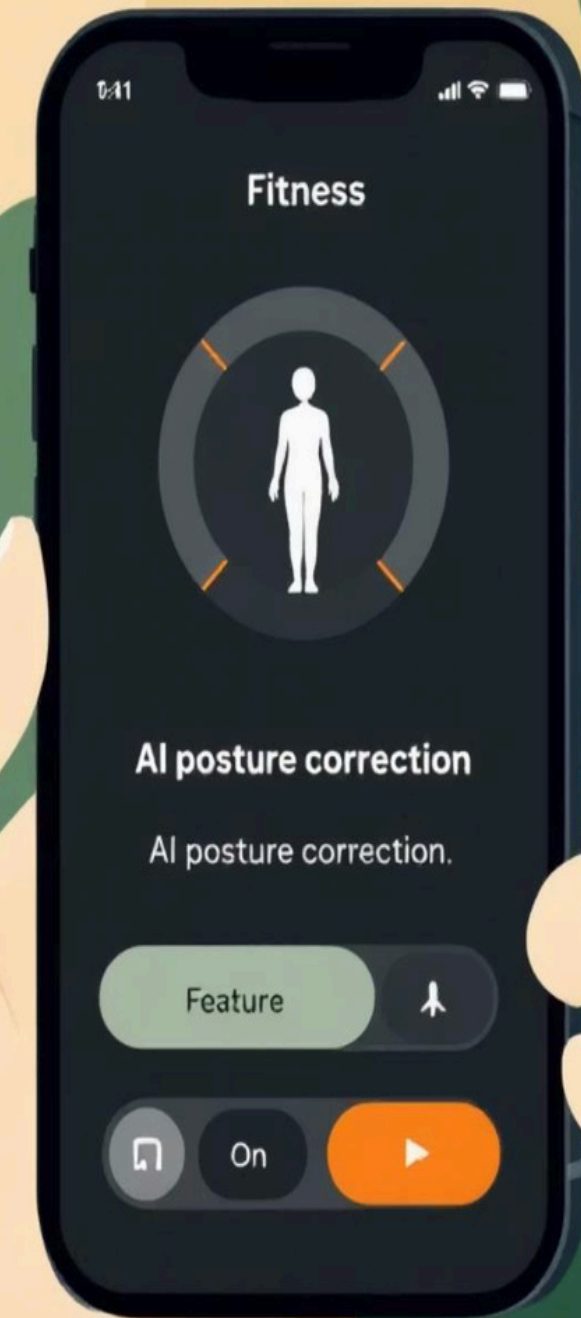
Personal trainers are expensive and not available 24/7

Without proper guidance, users risk injury and see limited results from their fitness routines

Our Solution: KinetiX

KinetiX is an AI-powered Android application that delivers:

- **Real-time posture detection** to ensure proper form
- **Personalized workout tracking** with progress
- **analytics Instant feedback** on exercise execution
- **Smart reminders** for workouts and hydration
- **Modern, sleek UI** optimized for fitness enthusiasts



How It Works



Camera Input

Captures user movement during exercise



AI Processing

MediaPipe+TensorFlow Lite analyze posture on-device



Real-time Feedback

Instant corrections and form guidance

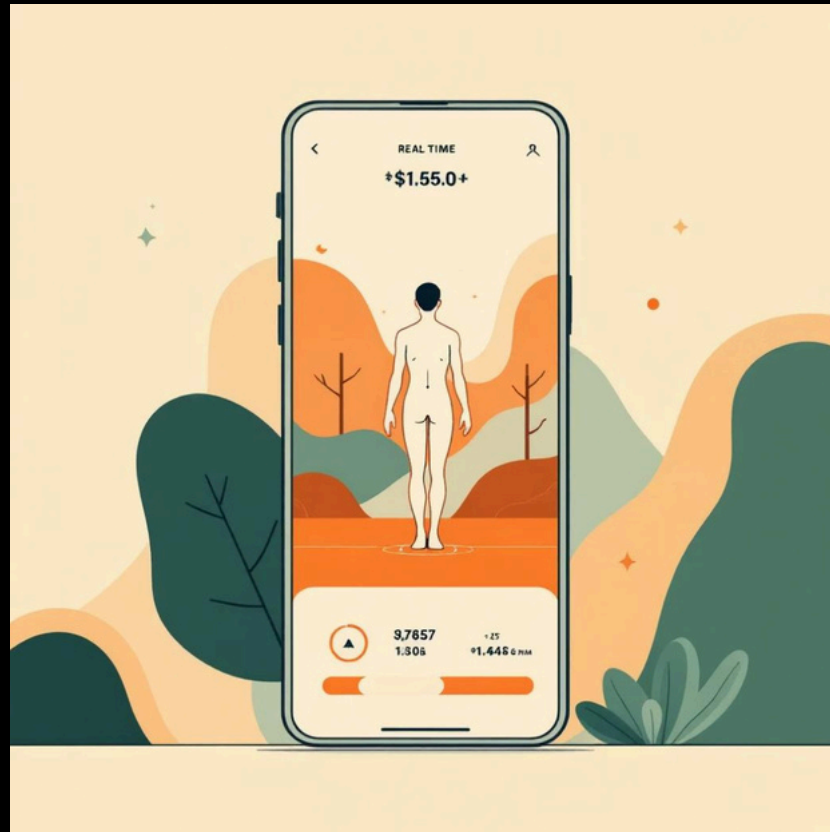


Progress Tracking

Comprehensive workout analytics and insights

All processing happens **on-device** - no cloud dependency required

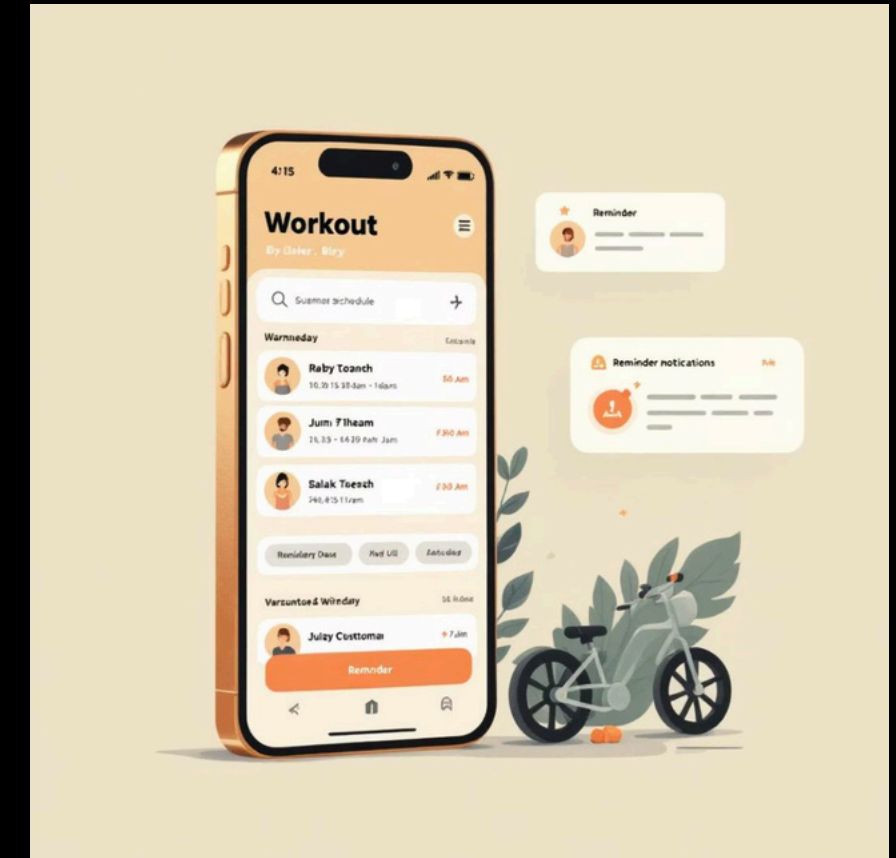
Key Features



Posture AI
Real-time detection and correction
of exercise form



Progress Dashboard
Visual insights, BMI calculator,
and improvement metrics



Customizable Tracking
Personalized workout plans with
smart reminders

Unique Innovation

On-Device ML + Workout Tracking

Rare combination that processes AI analysis locally while maintaining a comprehensive fitness ecosystem

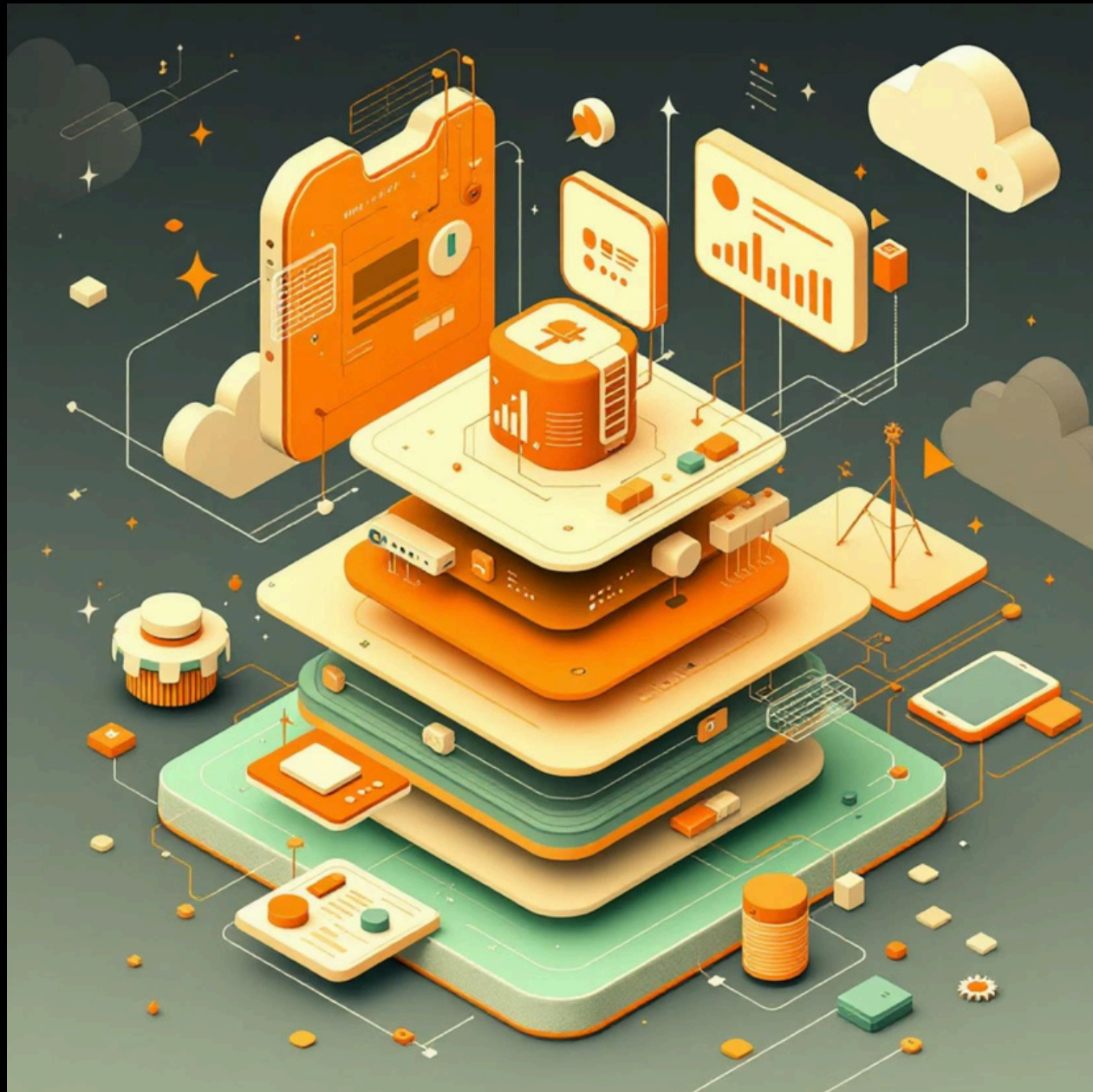
Offline Functionality

Works without internet connection, preserving privacy and ensuring accessibility in all environments

Integration Ready

Built with APIs designed to connect with wearables, nutrition tracking platforms, and other fitness ecosystems

Tech Stack



Frontend
Kotlin + XML with MVVM
architecture



AI Models
TensorFlow Lite + MediaPipe for on-device
processing

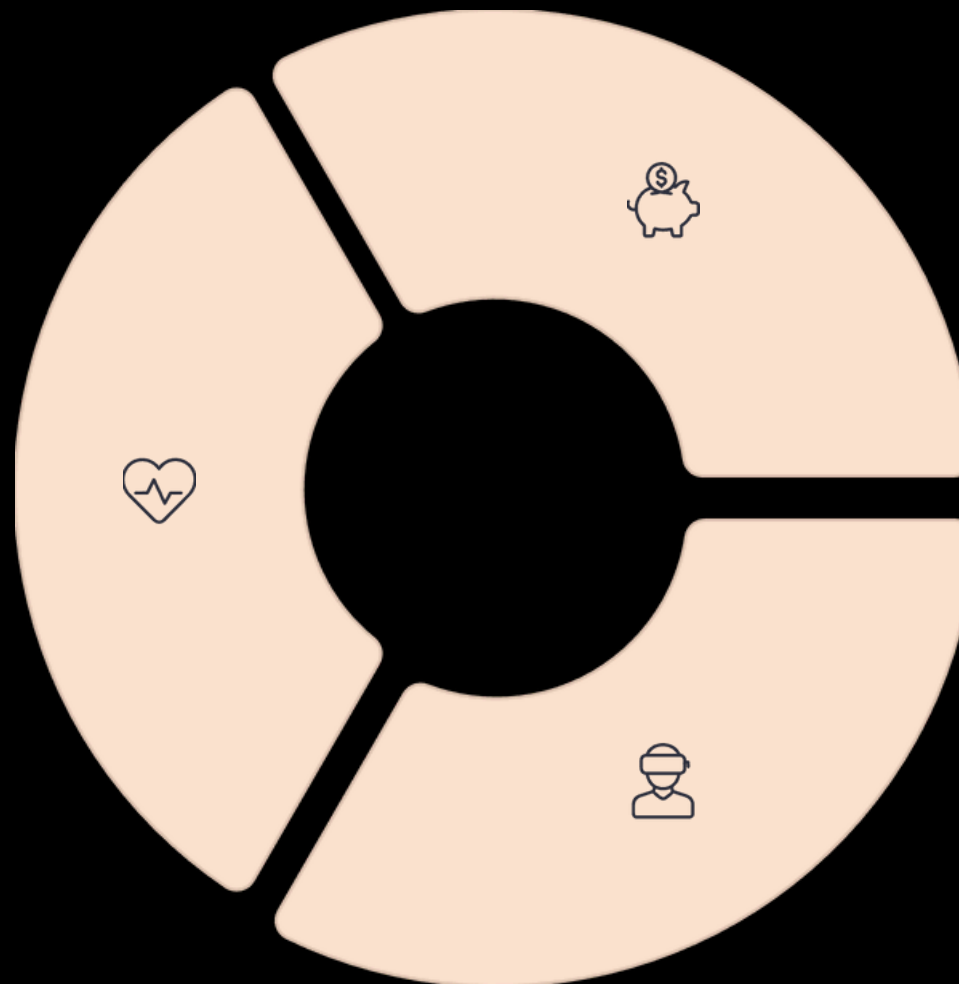


Local Storage
Room Database for offline data
persistence

Impact & Future Scope

Social Impact

Reduces posture-related health issues by democratizing access to professional-grade fitness guidance



Economic Value

Provides an affordable alternative personal trainers at a fraction of the cost

Future Innovation

AR workout assistance, smartwatch powered diet planning

Why KinetiX Stands Out

"We're not just tracking workouts — we're making every rep count with real-time AI guidance that was previously only available with expensive personal trainers."

- Combines accessibility with professional-grade coaching
- Solves a real problem for millions of fitness enthusiasts
- Addresses a \$96 billion fitness app market Leverages cutting-edge on-device ML for privacy and performance



Team DataDynamos

Building the future of fitness technology, one rep at a time



Debajyoti Bhakta
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Android Developer

Anuran Pradhan
UI/UX Designer

Smarika Sahoo
Backend Developer

Hrishika Ranjan
Product Manager

To exit full screen, press and hold Esc



Execute workflow