ANDROID FITNESS

Group Members

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**ABSTRACT**

Android Fitness is a platform designed to provide users with convenient access to tailored fitness solutions through a user-friendly mobile application. The platform features two primary roles: Admin and User. Users can register by providing their personal details and explore a variety of workout plans. Each workout plan is designed to cater to different fitness levels, ensuring inclusivity and effectiveness. Users can track their progress, and provide feedback on their fitness journey.The Admin oversees the platform, managing users, curating workout plans, and ensuring the quality and reliability of the content.The platform allows users to update their profiles and preferences to personalize their fitness experience, making it a dynamic and engaging environment.Android Fitness aims to create a secure and efficient fitness ecosystem where users can achieve their health goals conveniently and effectively, empowering them to lead healthier lives.

# Introduction

## Purpose

The purpose of Android Fitness is to provide a user-friendly mobile platform that empowers individuals to achieve their fitness goals through tailored workout plans and personalized fitness solutions. The platform ensures inclusivity, quality, and reliability. Users can explore workout plans, track progress, and personalize their experience, while the Admin manages content, oversees user activities, and maintains platform integrity. Android Fitness aims to create a secure and efficient fitness ecosystem that promotes healthier lifestyles.

## Document Conventions

IEEE standard are followed:

Main Heading Times New Roman -16pt, Bold

Sub heading – Times New Roman -Level 1 – 14pt Bold

Normal – Times New Roman -Times New Roman 12

Ri represents Functional Requirements where ‘i’ represents ID number.

## Intended Audience and Reading Suggestions

This document is intended for developers, project managers, testers, marketing staff, users, and documentation writers involved with the Android Fitness application. It provides an overview of the product's purpose, functional requirements, and system interactions. Readers should start with the Product Scope section, refer to Functional Requirements for capabilities, review Use Cases for user interactions, and consult the System Architecture and Testing sections for technical and validation details.

## Product Scope

**Android Fitness** is a mobile application designed to help users achieve their fitness goals through personalized workout plans, guided tutorials, and progress tracking. The app promotes a healthier lifestyle and user engagement with accessible and reliable fitness content.It aligns with corporate goals by delivering high-quality fitness solutions that enhance user satisfaction and foster long-term loyalty.

## References

Books, Documentations and Websites.

# Overall Description

## Product Perspective

Android Fitness is a standalone mobile application designed to provide users with tailored fitness solutions, including workout plans, guided tutorials, and progress tracking. It is a new, self-contained product aimed at promoting a healthier lifestyle through a user-friendly interface and reliable fitness content.The application is independent of any larger system but integrates standard mobile device features, such as notifications, multimedia playback for video tutorials, and user data management. This integration ensures seamless operation and accessibility, allowing users to personalize their fitness journey and track their progress efficiently.The system is designed to support scalability, enabling future enhancements to include additional features or accommodate more users, aligning with evolving fitness trends and user needs.

## User Classes and Characteristics

The Android Fitness application is designed for two primary user classes:

**2.3.1 Admin**

* Acts as the controller of the platform.
* Responsible for creating and managing workout plans.
* Manages user accounts, including editing or deleting accounts to maintain platform integrity.

### ****2.3.2 Users****

* Individuals seeking fitness solutions.
* Can register on the platform and explore workout plans.
* Tracks progress, updates profiles, and provides feedback on workout plans.
* Accesses guided video tutorials for exercises and workout plans.

**2.3 System Modules:**

The system consists of two modules:

Admin module: Which includes the functions

• Login

• Logout

• Add Workout Plans

• Manage Users

User module: Which includes the functions

• Registration

•Login

•Logout

•Explore Workout Plans

•Track Progress

•Update User Profile

•Provide Feedback and Ratings

• Guided Video Tutorial

# System Features

**3.1 FUNCTIONAL REQUIREMENTS**

**FR1: User Registration**  
**Description**: This function allows users to register on the platform by entering their personal details.  
**Input**: User details (e.g., name, email, password, age, fitness level).  
**Output**: Registration confirmation message.

**FR2: Login**  
**Description**: This function enables users to log in to their accounts using their registered credentials.  
**Input**: Email and password.  
**Output**: Login success or failure message.

**FR3: Admin Login**  
**Description**: This function allows the admin to securely access the platform's management features.  
**Input**: Admin credentials (username and password).  
**Output**: Admin login confirmation message.

**FR4: Add Workout Plans**  
**Description**: This function is handled by the admin to create and upload new workout plans for users.  
**Input**: Workout plan details (e.g., name, duration, difficulty level, exercises).  
**Output**: Response message indicating success or failure.

**FR5: Explore Workout Plans**  
**Description**: This function allows users to browse and select workout plans based on their preferences and fitness levels.  
**Input**: Fitness level or workout preferences.  
**Output**: List of recommended workout plans.

**FR6: Track Progress**  
**Description**: Users can log their daily activity and track progress over time through this feature.  
**Input**: Logged activities and progress updates.  
**Output**: Graphical representation of progress.

**FR7: Feedback and Ratings**  
**Description**: Users can provide feedback and rate workout plans to help improve the content.  
**Input**: Feedback text and rating score.  
**Output**: Confirmation message.

**FR8: Update User Profile**  
**Description**: Users can update their profile information, including personal details and fitness preferences.  
**Input**: Updated user information.  
**Output**: Profile update confirmation.

**FR9: Manage Users**  
**Description**: The admin can view, edit, or delete user accounts to maintain platform integrity.  
**Input**: User account details.  
**Output**: Response message indicating action success or failure.

**FR10: Guided Video Tutorials**  
**Description**: Users can access video tutorials for specific exercises or complete workout plans.  
**Input**: Selected workout plan or exercise.  
**Output**: Video playback.

**3.2 Non-Functional Requirements**

**NFR1: Performance**  
The application must load workout plans and videos within 2 seconds and support up to 1,000 concurrent users.

**NFR2: Security**  
User data must be securely stored and encrypted, both in transit and at rest, to prevent unauthorized access or data loss.

**NFR3: Portability**  
The application must adapt to different screen sizes and Android devices running OS version 8.0 or higher.

**NFR4: Compliance**  
The application must comply with data protection regulations such as GDPR or local privacy laws.

**NFR5: Business Rules**  
Only authorized admins can manage workout plans, and users must log in to access features. Personal data sharing requires explicit consent.

**4. OTHER REQUIREMENTS**

**4.1 Communication**  
The Android Fitness application requires a stable internet connection with a minimum speed of 10 Mbps to ensure smooth operation and access to online features, such as video tutorials and workout plans.

**4.2 Hardware Requirements**

* **RAM**: 2 GB (minimum)
* **Storage**: 16 GB (minimum)
* **Device**: Android smartphones or tablets

**4.3 Software Requirements**

* **Operating System**: Android OS version 8.0 or higher