Vivekanand Education Society's
Institute of Technology
(Autonomous Institute Affiliated to University of Mumbai, Approved by AICTE & Recognised by Govt. of Maharashtra)
NAAC accredited with 'A' grade

MPL Project

Title of the Project:
TurfIt-Turf Booking App

Domain: App Development (Flutter)

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Introduction

With the increasing interest in sports and fitness activities, turf grounds have become popular venues for football, cricket, and other outdoor sports. However, users often face difficulties in finding available turfs, especially in metropolitan cities. Turfit is a mobile application developed using Flutter and Firebase, designed to simplify the turf booking process by allowing users to discover, check availability, and book slots for turfs in Mumbai and Pune seamlessly.

Problem Statement

In urban areas, the demand for turf spaces often exceeds the available infrastructure. Players face issues like:

- Difficulty in checking real-time availability.
- Non-standardized booking processes.
- Manual payment systems and lack of instant booking confirmations.
- Limited accessibility and communication with turf managers.

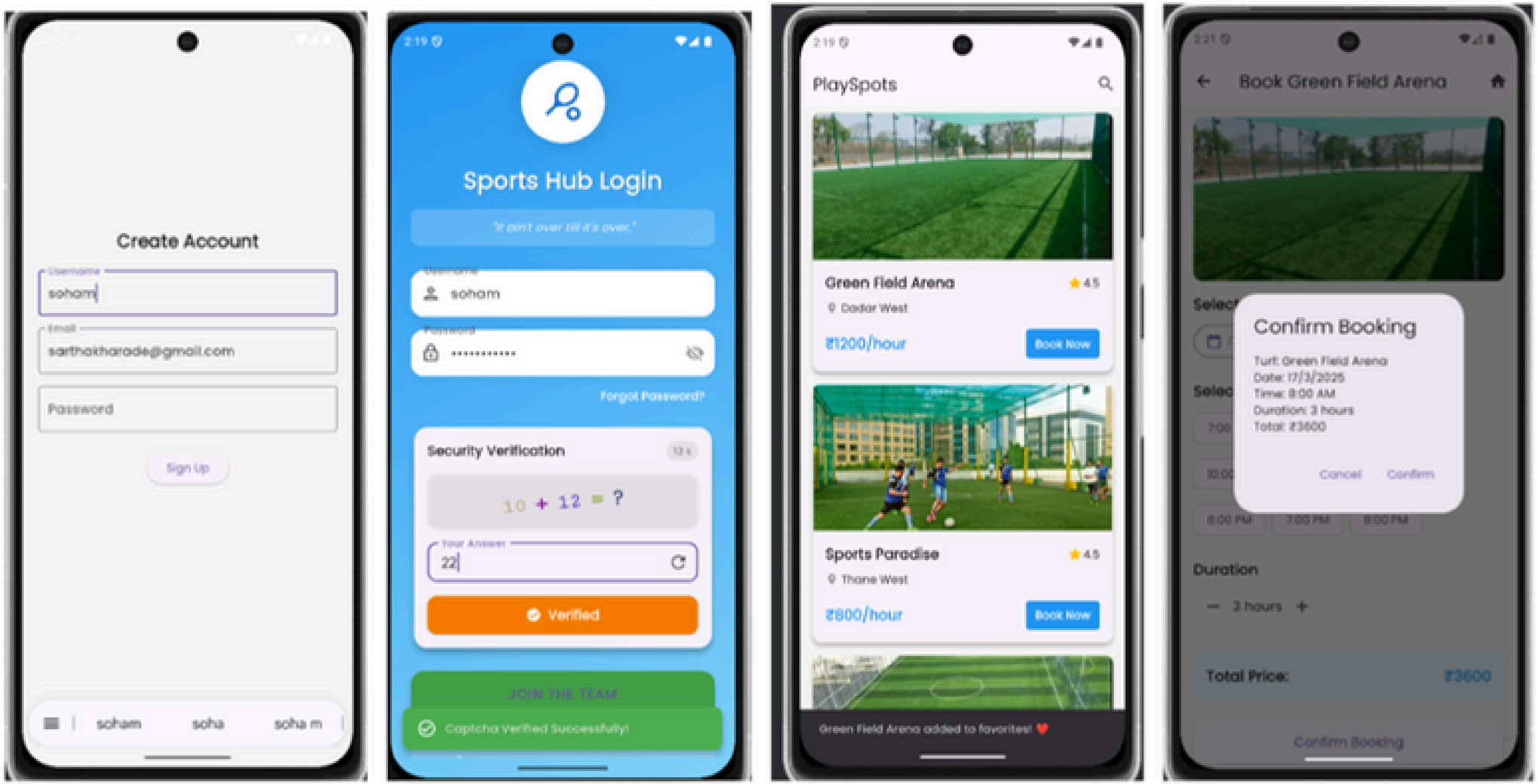
There is a need for a centralized, user-friendly platform that allows seamless turf discovery, slot-based booking, and basic payment simulation.

Solution

Turfit addresses these problems by providing:

- A real-time turf availability system.
- Date-wise and slot-wise booking functionality.
- Dummy payment gateway for simulated transactions.
- On-screen booking confirmation.
- Location-based search (Mumbai & Pune).

This enables users to plan games conveniently and ensures efficient utilization of turf resources.


Create Account
Username
soham
Email
sarthakharade@gmail.com
Password
Sign Up
soham
soha
soha m
Sports Hub Login
"It ain't over till it's over."
soham
Password
Forgot Password?
Security Verification
10 + 12 = ?
Your Answer
22
Verified
JOIN THE TEAM
Captcha Verified Successfully!
PlaySpots
Green Field Arena
4.5
Dadar West
₹1200/hour
Book Now
Sports Paradise
4.5
Thane West
₹800/hour
Book Now
Green Field Arena added to favorites! ❤️
Book Green Field Arena
Confirm Booking
Turf: Green Field Arena
Date: 17/3/2025
Time: 8:00 AM
Duration: 3 hours
Total: ₹3600
Cancel
Confirm
Duration
3 hours
Total Price:
₹3600
Confirm Booking

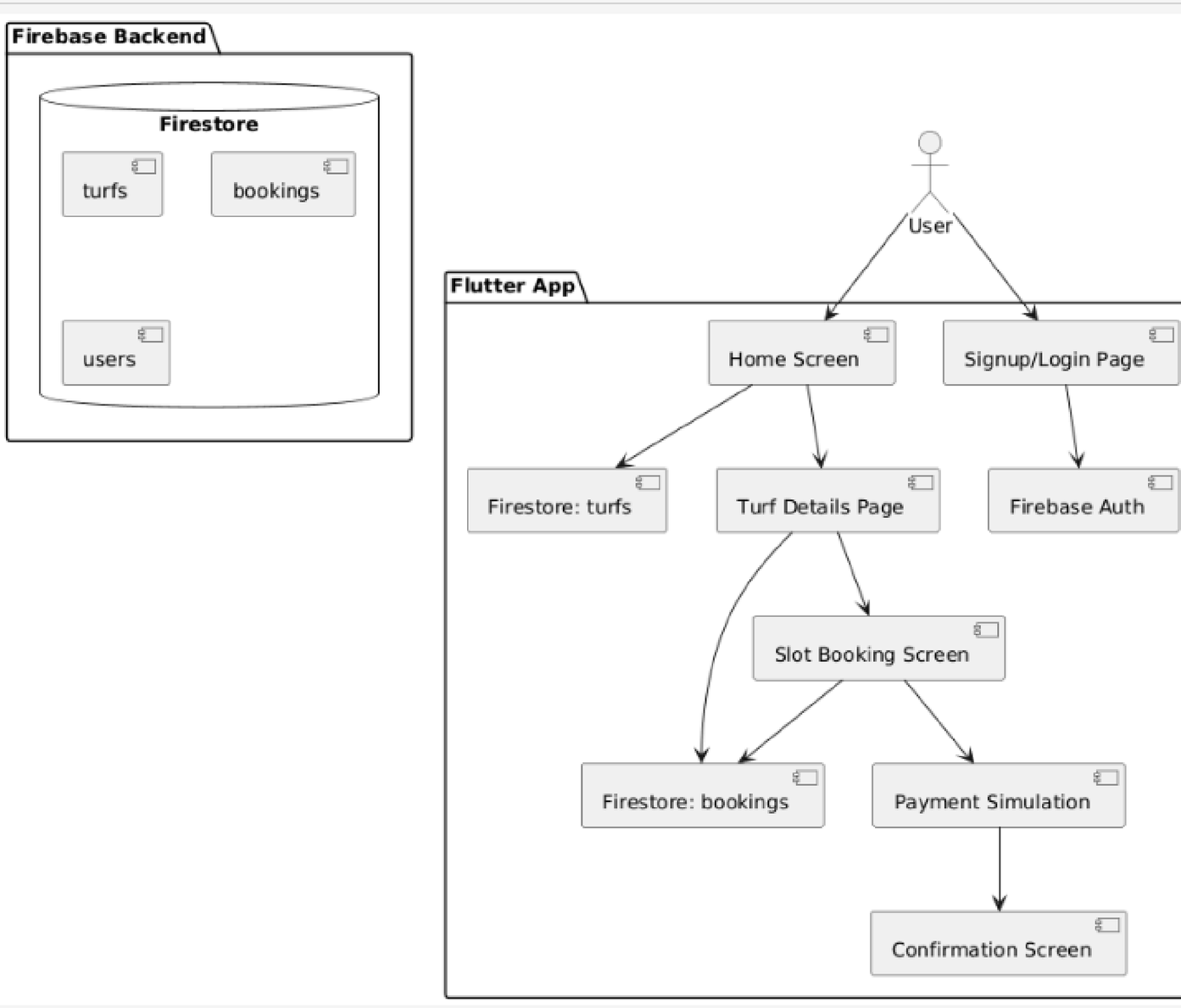
Features

- **User Authentication:** Signup/Login using email.
- **Turf Listing:** Shows turfs available in Mumbai and Pune.
- **Availability Checking:** Slot-based availability calendar with real-time updates.
- **Slot Booking:** Users can select available date and time slot.
- **Payment Wallet:** Simulates payment without real transaction integration.
- **Confirmation Screen:** Displays booking confirmation after slot is reserved.
- **Navigation and Routing:** Flutter's Navigator and GestureDetector handle screen transitions and user interactions.

Design and Architecture

Architecture Overview

- Frontend (Flutter)
  - Authentication Screens
  - Home Screen with turf list
  - Turf Details & Slot Selection
  - Dummy Payment Screen
  - Booking Confirmation Page
- Backend (Firebase)
  - Firebase Authentication
  - Firestore Collections:
    - users
    - turfs
    - bookings



Future Scope

- **Real Payment Integration:** Add Cashfree or Razorpay for secure transactions.
- **Admin Panel:** Turf owners can manage bookings, add/remove slots.
- **Push Notifications:** For booking confirmations and reminders.
- **Email Confirmation:** Send booking summary to user’s email.
- **Google Maps Integration:** Show turf locations with directions.
- **Coupon Codes/Wallet Integration:** Introduce discounts and user wallet.
- **Review & Rating System:** Let users share experiences and rate turfs.
- **Cancel/Reschedule Functionality:** Add flexibility for users.

Conclusion

Turfit is a practical and scalable solution to the urban turf booking problem. By leveraging Flutter and Firebase, the app demonstrates how mobile platforms can streamline real-world service industries like turf rentals. While it currently uses a simulated payment method, its architecture and implementation are ready to integrate more advanced features in the future.