**Flutter Firebase App - Application Details & Workflow**

**Slide 1: Title Slide**

**Title:** Flutter Firebase App  
**Subtitle:** Application Details, Workflow & Angular Concepts Used  
  
**Date:** March 2025

**Slide 2: Introduction**

**Overview of the App**

* A Hand Cricket game developed using Flutter and Firebase.
* Provides an interactive gameplay experience with real-time data storage.
* Features include user authentication, game progress tracking, and a scorecard.

A screenshot of a cricket game

AI-generated content may be incorrect.

**Slide 3: Project Structure**

**Folder Organization**

* lib/screens/ – Contains UI screens for different game functionalities:
  + game\_screen.dart – Main gameplay interface.
  + home\_screen.dart – Landing page for users.
  + scorecard\_screen.dart – Displays game results.
  + how\_to\_play\_dialog.dart – Provides instructions.
* lib/services/ – Handles Firebase integration:
  + firebase\_service.dart – Manages Firebase authentication and database operations.
  + firebase\_options.dart – Configuration settings for Firebase.
* assets/ – Stores game-related images and resources.
* A screenshot of a phone

  AI-generated content may be incorrect.

**Slide 4: Application Workflow**

**Step-by-step Process**

1. **Home Screen**: Users land on the homepage with options to start a new game or view past results.
2. **Toss Decision**: Players participate in a toss to determine batting/bowling.
3. **Gameplay**:
   * Users input numbers while the CPU generates random numbers.
   * Runs are accumulated unless the numbers match (out condition).
4. **Scorecard Display**: Results are stored and displayed after the game.
5. **Firebase Interaction**:
   * User data and scores are stored in Firestore.
   * Real-time updates ensure a seamless experience.

A screenshot of a phone

AI-generated content may be incorrect.

**Slide 5: Firebase Integration**

**Firebase Services Used**

* **Authentication:** User login and session management.
* **Firestore Database:** Stores user scores and game data.
* **Firebase Hosting (if applicable):** Deploying the app online.

A screenshot of a video game

AI-generated content may be incorrect.

**Slide 6: Angular Concepts Used (If Applicable)**

**Angular Features in the Admin Panel**

* **Components:** Used for structuring the UI.
* **Services (bike.service.ts)**: Fetches and manages motorcycle-related data.
* **Data Binding:** Dynamic updates using db.json.
* **HTTP Requests:** Integrated with Firebase for fetching user/game data.

A screenshot of a video game

AI-generated content may be incorrect.

**Slide 7: Conclusion**

**Summary of the App**

* Developed using Flutter for frontend and Firebase for backend.
* Provides an engaging Hand Cricket gameplay experience.
* Features Firebase authentication, database, and real-time updates.

**Future Enhancements**

* Implementing online multiplayer mode.
* Enhancing UI/UX with animations and better visual effects.
* Adding leaderboards to compare scores globally.

A screenshot of a screen

AI-generated content may be incorrect.