

# Chkobba – Advanced Mobile Game Development Plan

Technology-Driven React Native (Expo) Card Game

## 1. Game Overview

Chkobba is a traditional Tunisian card game derived from the Italian game Scopa. This project aims to build a premium, scalable, competitive, and socially connected mobile Chkobba experience using modern technologies.

## 2. Core Game Rules

- 1 40-card deck (French suits without 8, 9, 10).
- 2 Card values: Ace=1, 2–7=face value, Queen=8, Jack=9, King=10.
- 3 Capture cards by matching or summing values.
- 4 Chkobba (table sweep) grants bonus points.
- 5 Game ends at 21 points with at least 2-point lead.

## 3. Advanced Feature Set

- 1 Online multiplayer with matchmaking and private rooms.
- 2 Offline mode vs intelligent AI opponents.
- 3 Ranked mode, leagues, seasons, and tournaments.
- 4 Real-time chat, emojis, reactions, and friend system.
- 5 Player statistics, replays, and game history.
- 6 Achievements, XP system, and cosmetic rewards.

## 4. Technology Stack (Advanced)

- 1 Frontend: React Native + Expo + TypeScript.
- 2 Animations: Reanimated 3 + Gesture Handler.
- 3 State: Redux Toolkit + Zustand (hybrid).
- 4 Backend: Firebase + Cloud Functions + Node.js.
- 5 Real-time: Firestore streams + Socket.IO fallback.
- 6 AI: Rule-based engine + Monte Carlo simulations.
- 7 Analytics: Firebase Analytics + BigQuery.
- 8 Security: Firebase App Check + anti-cheat validation.
- 9 DevOps: EAS Build, GitHub Actions CI/CD.
- 10 Crash Monitoring: Sentry.
- 11 Payments: RevenueCat (optional).

## 5. Architecture

The game follows a client-server architecture where all critical game logic is validated server-side to prevent cheating. The frontend focuses on UX, animations, and responsiveness.

## 6. Development Phases

- 1 Phase 1: Core gameplay engine, offline play, UI foundation.
- 2 Phase 2: Multiplayer, authentication, matchmaking, chat.
- 3 Phase 3: AI improvements, ranking, animations, sound.
- 4 Phase 4: Monetization, events, tournaments, scaling.

## 7. Future Innovations

- 1 AI-generated player avatars.
- 2 Voice chat using WebRTC.
- 3 Spectator & streaming mode.
- 4 AR tabletop mode.
- 5 Global competitive esports ranking.

## 8. Final Goal

Deliver the most advanced, authentic, and emotionally engaging Chkobba mobile game ever built, connecting Tunisian culture with modern mobile gaming technology.