

Business Requirements Document (BRD): Initiate Dating App

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Version: 1.0

Tech Stack: Flutter | .NET Core | MySQL

1. Project Overview

This document outlines the business requirements for "Initiate," a high-performance dating application tailored for the Indian market. The platform emphasizes high-trust interactions through mandatory female verification, a "Nearby First" discovery model, and a tiered monetization strategy to encourage premium upgrades. The app aims to foster meaningful connections while prioritizing user safety, privacy, and engagement. Key business goals include achieving high user retention through quality matches, monetizing via premium subscriptions, and scaling to support millions of users in urban and semi-urban areas of India.

Scope:

- In-Scope: User profiles, verification, discovery/swiping, stories, chat functionality, membership tiers, and basic analytics for user engagement.
- Out-of-Scope: Advanced features like video calls, group events, or integration with third-party social media (e.g., Instagram linking) in the initial release.

Stakeholders:

- End Users: Male and female users aged 18+ seeking dating connections.
- Administrators: Platform moderators for content review and user reports.
- Developers: For implementation and maintenance.
- Business Owners: For monetization and growth strategies.

Assumptions and Constraints:

- Assumptions: Users have access to smartphones with GPS capabilities; internet connectivity is reliable in target markets.
- Constraints: Compliance with Indian data privacy laws (e.g., DPDP Act); budget limits for initial marketing; no support for web/desktop versions in Phase 1.

Risks:

- Privacy breaches due to verification processes.
- Low female user adoption if verification is perceived as intrusive.
- Competition from established apps like Tinder or Bumble.
- Mitigation: Implement robust encryption and conduct user beta testing.

2. Business Requirements

2.1 User Roles and Access

- **Free Users:** Limited features to encourage upgrades; gender-specific rules for interactions.
- **Premium Users:** Unlimited access and advanced controls.
- **Administrators:** Backend access for monitoring, banning users, and generating reports.

2.2 Monetization Model

- Premium Subscription Tiers: Monthly/Annual plans unlocking unlimited likes, visibility of likes, and direct messaging.
- Revenue Streams: In-app purchases for boosts (e.g., profile visibility boosts) and premium memberships.
- Payment Integration: Support for UPI, credit/debit cards, and wallets compliant with Indian regulations.

2.3 Reporting and Analytics

- Track key metrics: Daily active users, match rates, churn rates, and revenue per user.
- Generate reports for business insights, such as user demographics and engagement patterns.

2.4 Compliance and Security

- Data Privacy: Adhere to GDPR-like standards and Indian laws; obtain explicit consent for location and photo data.
- Content Moderation: Automated and manual review for inappropriate profiles/photos.
- Age Restriction: Strict 18+ enforcement via ID verification if needed.

3. Non-Functional Requirements

- **Performance:** App should load profiles in under 2 seconds; support 100,000 concurrent users.
- **Scalability:** Cloud-based architecture (e.g., AWS or Azure) for easy scaling.
- **Security:** HTTPS encryption; two-factor authentication for logins; secure storage of verification selfies.
- **Usability:** Intuitive interface with multilingual support (English, Hindi, regional languages).
- **Reliability:** 99.9% uptime; automated backups for user data.
- **Accessibility:** Compliance with WCAG standards for visually impaired users.

4. Glossary

- **Swipe:** User gesture to express interest (right) or disinterest (left).
- **Match:** Mutual right swipes between users.
- **Ephemeral Content:** Temporary media like stories that expire after 24 hours.
- **Verification:** Process to confirm user identity via selfie.

Functional Requirements Document (FRD): Initiate Dating App

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1. Introduction

This document details the functional requirements for the "Initiate" dating app, building on the business requirements. It specifies how the system will behave to meet user needs, including detailed workflows for key features.

2. Functional Requirements

2.1 User Registration and Onboarding

- Users register via email/phone with OTP verification.
- Mandatory profile completion: Name, Age (18+ validation), Location (GPS-enabled), Profession, Bio, Language Preferences, Interests (selectable tags), Photos (up to 6), Gender, and Zodiac.
- Onboarding wizard guides users through steps, including mandatory female selfie verification.

2.2 Profile & Verification Logic

- **Mandatory Fields:** Name, Age, Location, Profession, Bio, Language, Interests, Photos, Gender, and Zodiac.
- **Safety Protocol:**
 - Female Users: Mandatory real-time selfie verification (using facial recognition API) to activate the profile; unverified profiles are inactive.
 - Male Users: Verification optional; verified males get a "Verified" badge for trust.
- **Location Services:** GPS coordinates for "Nearby First" prioritization; users can set search radius (default: 50 km).
- Profile Editing: Users can update fields post-registration, but changes to age/gender require re-verification.

2.3 Discovery & Swiping Engine

- **Gestures:** Left Swipe (Reject/Terminate), Right Swipe (Like/Initiate Interest).
- **The "25-Limit" Rule:** Free users capped at 25 likes per day (resets at midnight IST); premium users unlimited.
- **Visibility:** "Who Liked Me" section shows blurred profiles for free users; clear for premium.
- **Matching Logic:** Mutual likes create a match; notify both users via push notification.
- **Algorithm:** Prioritize nearby, verified, and interest-matched profiles; use machine learning for better recommendations over time.

2.4 Story Feature

- **Mechanism:** Users upload 24-hour ephemeral photos/videos (up to 15 seconds).
- **Engagement Rule:** In free tier, only females can reply to stories; males can view but not respond. Premium users (both genders) can reply freely.
- **Visibility:** Stories visible to matches and potential matches in discovery feed.
- **Notifications:** Alert users when someone views or replies to their story.

2.5 Communication (Chat)

- **Female-First Control:** For free matches, chat activates only after female sends first message; males can respond thereafter. Premium allows mutual initiation.
- **Read Receipts:** Real-time indicators for "Delivered" and "Seen."
- **Privacy Update:** Remove "Active Now" status from chat headers for all users; optional "Online" visibility in premium profiles.
- **Features:** Text messaging, emoji reactions, photo sharing (ephemeral option); report/block users.
- **Expiry:** Free chats expire after 48 hours of inactivity; premium chats persist indefinitely.

2.6 Notifications and Alerts

- Push notifications for likes, matches, messages, story replies, and daily like resets.
- In-app alerts for verification status, premium upsells, and safety tips.

2.7 Administrative Functions

- Dashboard for moderators: Review reported profiles, ban users, and view analytics.
- User Management: Search, edit, or delete user data.

3. Membership Comparison Matrix

Feature	Free Tier	Premium Tier
Daily Likes	25 Likes	Unlimited
Direct Message	Requires Match	DM without Matching
"Who Liked Me"	Blurred	Fully Visible
Chat Expiry	48 Hours	No Expiry
Online Status	Hidden	Visible on Profiles
Profile Control	Basic	Advanced (Hide Age/Distance)
Story Replies	Females Only (as Responder)	Both Genders
Boosts	Not Available	Available for Purchase

4. Technical Architecture

4.1 Frontend (Flutter)

- **State Management:** Bloc or Provider for handling real-time updates like like counters and notifications.
- **Real-time Integration:** SignalR for instant messaging and live updates.
- **UI Components:** Cross-platform widgets for swipe cards, chat bubbles, and story viewers.

4.2 Middleware (.NET Core)

- **Authentication:** JWT-based secure sessions with role-based access (free/premium/admin).
- **Messaging:** SignalR Hubs for read receipts, notifications, and real-time chat.
- **APIs:** RESTful endpoints for profile management, swiping, and matching.

4.3 Database (MySQL)

- **Schema:** Tables for Users, Profiles, Likes, Matches, Chats, and Stories.
- **Spatial Data:** Use ST_Distance_Sphere for proximity-based matching.
- **Optimization:** Indexed columns for User_Interactions to ensure fast query speeds; partitioning for large datasets.

5. UI/UX Specifications

- **Swipe Interface:** Card-stack design with animations; prominent "Verified" badge and quick info overlays (age, profession, distance).
- **Chat UI:** Minimalist interface with focus on conversation; no distracting elements like "Active Now."
- **Onboarding:** Step-by-step wizard with progress indicators; integrated camera for selfie verification.
- **Design Principles:** Mobile-first, responsive to different screen sizes; dark/light mode support.
- **Wireframes:** (To be developed separately; placeholders for key screens like profile, discovery, and chat.)

6. Testing and Deployment

- **Testing:** Unit tests for APIs, integration tests for real-time features, and user acceptance testing (UAT) with beta users.
- **Deployment:** CI/CD pipeline using GitHub Actions; initial launch on Google Play Store and Apple App Store targeting India.

This completes the BRD and FRD. Additions include separate documents for clarity, non-functional requirements, user roles, monetization details, notifications, admin functions, and expanded testing/deployment sections to make the documents more comprehensive and professional.