

# MÄÄK DATING APP

## 1. WHAT ARE YOU BUILDING?

MÄÄK is a Swedish personality-based dating app that uses AI-powered matching and conversation assistance to create meaningful connections based on personality compatibility rather than superficial swiping.

*The problem it solves:* Traditional dating apps focus too much on appearance and swiping, leading to superficial connections. MÄÄK solves this by matching users based on deep personality compatibility (via a 30-question test) and reducing conversation anxiety with AI-generated icebreakers tailored to both users' profiles.

## 2. WHO IS IT FOR?

Primary Target Users:

- Demographics: 20-35 year olds in Sweden
- Pain Points:
  - Frustration with superficial swiping apps
  - Anxiety about starting conversations
  - Difficulty finding meaningful connections
  - Wanting deeper compatibility beyond looks
- Usage Context: Mobile/web, during commutes, evenings, weekends
- Current Alternatives: Tinder, Hinge, Bumble - but none focus specifically on personality-first matching in the Swedish market

## 3. WHAT'S THE USER JOURNEY LIKE?

New User Journey:

1. Discovery: Landing page → "Skapa konto"
2. Authentication: Phone number input (+46 format) → OTP verification → Age check (must be 20+)
3. Consent: GDPR consent screen (analytics, marketing, personalization)

4. Onboarding: 6-step wizard:
  - Basic info (name, gender, sexuality, looking for)
  - Personality test (30 questions, Likert scale)
  - Background info (optional: hometown, work, education)
  - Photos (6 slots with AI prompts)
  - Privacy settings (what's visible to others)
  - Completion summary
5. Welcome: Celebration screen with confetti and mascot
6. Core Experience: Daily matches → View profiles → Chat with AI icebreakers → Build connections

Returning User:

Login → View new matches/daily suggestions → Chat with existing matches → Update profile → Earn achievements

## 4. WHAT ARE THE KEY FEATURES?

Core Features:

- Phone-based Authentication: Swedish number format with OTP verification
- Age Verification: 20+ requirement with date picker validation
- GDPR Consent Management: Three consent categories with customization
- Personality Test: 30-question Likert scale test with shuffled questions
- Personality Results: Archetype system (16 types) with detailed descriptions and compatibility tips
- Profile Management: Complete profile editor with photo uploads (6 photos with prompts)
- AI Matching: Personality-based compatibility scoring
- AI Icebreakers: Personalized conversation starters generated from both users' profiles
- Real-time Chat: Typing indicators, read receipts, message history
- Match List: Mutual matches with unread counts and last message previews
- Achievements System: Gamification with points, badges, and unlock notifications
- Profile Completion Prompts: Encourages users to complete their profiles
- PWA Installation: Platform-specific install prompts (iOS/Android)
- Landing Page: Marketing site with features, how-it-works, FAQ

- Animated Mascot: React SVG version (web) + SwiftUI version (advanced animations)

## 5. WHAT PLATFORM IS IT ON?

- Primary: Web app (PWA - Progressive Web App)
- Responsive Design: Mobile-first, works on all devices
- PWA Features: Installable, offline capabilities, app-like experience
- Future: Native mobile apps (iOS/Android) as phase 2

## 6. WILL IT USE AI OR ANY SPECIFIC TECH?

AI Features:

- Personality Analysis: Test scoring and archetype categorization
- Icebreaker Generation: Context-aware conversation starters using both users' profiles
- Profile Improvement Suggestions: AI feedback on profile completeness
- Compatibility Insights: Personality-based matching recommendations

Technical Stack:

- Frontend: React 18 + TypeScript + Vite + Tailwind CSS + Framer Motion
- Backend: Supabase (PostgreSQL, Auth, Storage, Realtime)
- Edge Functions: Deno + TypeScript for AI integration
- AI Gateway: Lovable AI → Google Gemini 2.5 Flash
- State Management: React Query + Context API
- Routing: React Router v6
- Animations: Framer Motion (React), SwiftUI (mascot)
- Icons: Lucide React

## 7. WILL USERS NEED TO LOG IN OR MAKE ACCOUNTS?

Yes - Required:

- Authentication Method: Phone number (Swedish format) + OTP
- Provider: Supabase Auth

- Age Verification: Required during registration (20+)
- GDPR Consent: Required before using app
- Profile: Required to complete basic onboarding before matching

## 8. WHAT KIND OF DATA WILL YOU STORE?

User Data:

- Profiles: Display name, bio, gender, sexuality, looking for, demographics
- Personality Results: Test scores, archetype, category, dimension scores
- Photos: Profile images with storage paths and display order
- Matches: Mutual connections, match scores, status
- Messages: Chat history with read status
- Icebreakers: AI-generated conversation starters per match
- Achievements: Earned badges, points, unlock timestamps
- Consent: GDPR consent preferences
- Privacy Settings: What information is visible to others
- Usage Data: (With consent) Feature usage, engagement metrics

## 9. WILL USERS TALK TO EACH OTHER, OR JUST INTERACT WITH THE SYSTEM?

Both:

- User-to-User: Real-time chat between matches
- User-to-System:
  - Personality test interaction
  - Profile editing
  - AI icebreaker suggestions
  - Achievement unlocks
  - Match browsing
- AI-Mediated: AI suggests conversation starters, but actual conversation is between users

## 10. WHAT VIBE SHOULD THE DESIGN HAVE?

Design Vibe:

- Primary Feel: Warm, trustworthy, modern, Swedish
- Color Scheme: Rose → Emerald gradient (love → growth)
- Typography: Serif headings (warmth) + clean sans body (readability)
- Layout: Card-based with subtle shadows and rounded corners
- Animations: Smooth transitions, floating elements, celebratory confetti
- Mascot: Friendly, animated character that sleeps, bounces, reacts
- Swedish Context: Language, cultural references, design aesthetics
- Trust Indicators: Age verification, GDPR compliance, privacy controls

## 11. ARE THERE ANY APPS OR PRODUCTS THAT INSPIRED THIS?

Inspirations:

- Hinge: "Designed to be deleted" philosophy
- OkCupid: Personality questions and compatibility scoring
- Bumble: Women-first approach (adapted to Swedish equality values)
- Myers-Briggs/16Personalities: Archetype system for personality categorization
- Duolingo: Gamification and mascot engagement
- Spotify: Personalized recommendations based on taste profiles
- Swedish Design Principles: Minimalism, functionality, trustworthiness

What We Do Differently:

- Swedish market focus with local phone auth
- Personality-first rather than appearance-first
- AI conversation assistance to reduce anxiety
- PWA-first approach (no app store required)
- GDPR and age verification as core features

## 12. WHAT FEATURES MIGHT YOU WANT TO ADD IN THE FUTURE?

Phase 2 Features:

- Video Profiles: Short video introductions
  - Voice Messages: Audio messages in chat
  - Virtual Dates: Video calling within app
  - Group Activities: Virtual dating events or group chats
  - Advanced Matching: Machine learning improvements based on user behavior
  - Premium Features: Subscription for advanced filters, unlimited likes, etc.
  - International Expansion: Beyond Sweden (Nordic region first)
  - Date Planning: Integration with booking restaurants/activities
  - Safety Features: Photo verification, reporting tools, moderation
  - Analytics Dashboard: For users to see their matching patterns
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## FINAL LOVABLE PRP

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PRODUCT REQUIREMENTS PROMPT

MÄÄK - Personality-Based Dating App

Idea: A Swedish dating app that matches users based on deep personality compatibility using a 30-question test and AI-powered conversation assistance, with a minimum age requirement of 20+.

Target Audience: 20-35 year olds in Sweden seeking meaningful connections beyond superficial swiping, frustrated with traditional dating apps' focus on appearance.

User Journey:

1. Landing page → Sign up with Swedish phone number (+46 format)
2. OTP verification → Age check (20+) → GDPR consent
3. 6-step onboarding: Basic info → Personality test → Background → Photos → Privacy → Completion
4. Welcome celebration with mascot and confetti

5. Daily personality-based matches → View profiles
6. Chat using AI-generated icebreakers → Build connections
7. Earn achievements, complete profile, get match suggestions

#### Core Features:

- Phone authentication (Swedish format) with OTP and age verification
- GDPR consent management (analytics, marketing, personalization)
- 30-question personality test (Likert scale) with shuffled questions
- Personality archetype system (16 types) with detailed results
- Profile management with 6 photo slots and AI prompts
- AI-powered matching based on personality compatibility
- AI-generated icebreakers tailored to both users' profiles
- Real-time chat with typing indicators and read receipts
- Match list with unread counts and last message previews
- Achievements system with points, badges, and unlock notifications
- Profile completion prompts and progress tracking
- PWA installation prompts (iOS/Android optimized)
- Landing page with features, how-it-works, FAQ
- Animated mascot (React SVG + SwiftUI versions)
- Multi-language support (Swedish primary, English secondary)

#### Suggested Stack:

- Frontend: React 18 + TypeScript + Vite + Tailwind CSS + Framer Motion
- Backend: Supabase (PostgreSQL, Auth, Storage, Realtime)
- Edge Functions: Deno + TypeScript for AI integration

- AI: Lovable AI Gateway → Google Gemini 2.5 Flash
- Hosting: Vercel/Netlify for frontend, Supabase for backend
- PWA: Service workers, manifest, install prompts

#### Design Vibe:

- Warm, trustworthy, modern Swedish aesthetic
- Primary gradient: rose → emerald (love → growth)
- Serif headings + clean sans body text
- Card-based layouts with subtle shadows and rounded corners
- Smooth animations, floating elements, celebratory confetti
- Friendly animated mascot with multiple states (sleeping, bouncing, reacting)

#### Future Enhancements:

- Video profiles and voice messages
- Virtual dates and group activities
- Advanced matching algorithms with ML
- Premium subscription features
- International expansion (Nordic region first)
- Date planning integrations
- Enhanced safety features and moderation

# MÄÄK DATING APP - COMPLETE TECHNICAL BLUEPRINT

## OVERVIEW

MÄÄK is a complete, production-ready Swedish dating app with AI-powered personality matching. The app is built with React + TypeScript + Supabase and features a comprehensive user journey from signup to meaningful conversations.

## COMPLETE APP ARCHITECTURE

## AUTHENTICATION SYSTEM

Components:

- PhoneAuth - Swedish phone number input (+46 format)
- OtpInput - 6-digit verification with auto-focus
- AgeVerification - 20+ age check with date picker
- AuthContext - Manages user sessions and state

Flow:

Phone Input → OTP Verification → Age Check → Session Creation → GDPR Consent → Onboarding

## LANDING PAGE

Features:

- Hero Section: Animated gradients with floating elements
- Features Grid: 3 key features (30 questions, smart matching, AI icebreakers)
- How It Works: 3-step process visualization
- FAQ Section: 6 common questions with expandable answers
- Social Proof: Heart ratings and testimonials
- Responsive Nav: Dynamic based on auth state

Navigation States:

- Logged Out: Login/Register buttons
- Logged In: Quick access to Matches, Chat, Profile, Logout

## ANIMATED MASCOT SYSTEM

Two Implementations:

1. React SVG Version: Simple, styleable mascot for web
2. SwiftUI Version: Advanced animated mascot for native feel

SwiftUI Mascot Features:

- Multiple States: Sleeping, Startled, Awake
- Dynamic Expressions: 3+ facial expressions
- Physics Animations: Gravity bounce, head rotation, paw sway
- Interactive: Tap to startle, auto return to sleep
- Timed Events: Expression cycling, periodic movements

Animation Types:

- Continuous head rotation (2.5-3s cycles)
- Periodic gravity bounce (every 3.5s)
- Paw swaying (alternating, 0.4s duration)
- Tail wagging (0.8s easeInOut)
- Expression changes (every 2s when sleeping)

## COMPLETE USER FLOW

New User Journey:

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Landing Page → "Skapa konto" → PhoneAuth →

Age Verification (20+) → OTP Verification →

GDPR Consent → Onboarding Wizard →

Welcome Screen → Matches Dashboard

## Onboarding Steps (6):

1. Basics: Name, pronouns, gender, sexuality, looking for
2. Personality: 30-question test (shuffled questions)
3. Background: Optional info (hometown, work, education, lifestyle)
4. Photos: 6 photo slots with AI prompts
5. Privacy: Visibility settings
6. Complete: Profile summary and match readiness

## Returning User:

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Landing Page → Direct to Matches →

Chat with matches → Update Profile →

Earn achievements → Daily matches



## AI INTEGRATION SYSTEM

## AI Capabilities:

1. Icebreaker Generation - Personalized conversation starters
2. Profile Analysis - Improvement suggestions
3. Matching Insights - Compatibility tips
4. Full User Analysis - Comprehensive dating advice

## Technical Implementation:

- Edge Functions: Deno + TypeScript
- AI Provider: Gateway → Google Gemini 2.5 Flash
- Context Injection: User profiles + personality data
- Rate Limiting: 429/402 error handling
- Fallbacks: Default icebreakers if AI fails



## REAL-TIME CHAT SYSTEM

## Features:

- Typing Indicators: Real-time broadcast
- Read Receipts: Single/double checkmarks
- Message History: Supabase realtime subscriptions
- Unread Counts: Per-match unread tracking
- AI Icebreakers: Auto-generated conversation starters

## Components:

- ChatWindow - Main chat interface
- MatchList - Conversation list with unread badges
- TypingIndicator - Animated dots component
- Message - Individual message display

## 🎮 GAMIFICATION SYSTEM

## Achievements:

- Categories: Profile, Social, Discovery, Milestones
- Points System: Each achievement awards points
- Visual Badges: Icon-based recognition
- Toast Notifications: Animated unlock notifications

## Engagement Features:

- Profile completion tracking (progress bar)
- Match countdown timers (urgency creation)
- Daily match suggestions
- Photo upload prompts

## 📁 COMPONENT ARCHITECTURE

## Core Components:

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/src

```
└── components/
    |   └── ui/          # Shadcn/ui inspired components
    |   └── auth/        # Authentication components
    |   └── chat/        # Messaging components
    |   └── profile/     # Profile management
    |   └── personality/ # Test and results
    └── contexts/      # React contexts
        └── hooks/       # Custom hooks
        └── integrations/ # Supabase client
        └── pages/        # Route components
        └── types/        # TypeScript definitions
```

## Key Contexts:

- AuthContext - User authentication
- ConsentContext - GDPR consent management
- Achievement hooks and state management

## DATABASE SCHEMA (Supabase)

### Core Tables:

1. profiles - User information
2. personality\_results - Test scores and archetypes
3. profile\_photos - Photo metadata
4. matches - Mutual connections
5. messages - Chat history
6. icebreakers - AI-generated starters
7. achievements - Gamification definitions
8. user\_achievements - Earned achievements

### Realtime Subscriptions:

- Messages per match

- Typing indicators
- Match status updates

## DESIGN SYSTEM

Visual Identity:

- Primary Gradient: from-rose-400 to-emerald-400
- Typography: Serif headings, sans body
- Shadows: Custom shadow-card, shadow-glow
- Animations: Framer Motion with custom presets
- Spacing: Consistent 4px base unit

UI Patterns:

- Card-based layouts with rounded corners
- Gradient backgrounds with blur effects
- Animated transitions between states
- Consistent form styling (h-9 inputs, py-5 selects)

## PWA & MOBILE OPTIMIZATION

Installation Flow:

- Android/Chrome: Native install prompt
- iOS: Custom instructions (Share → Add to Home)
- Dismissal Memory: 7-day cooldown
- Offline Support: Basic PWA capabilities

Responsive Design:

- Mobile-first approach
- Breakpoints: sm:640, md:768, lg:1024
- Adaptive layouts (stacked mobile, grid desktop)
- Touch-friendly interactive elements

## MULTI-LANGUAGE SUPPORT

- Primary: Swedish (complete localization)
- Secondary: English (full translations)
- Dynamic Switching: `LanguageToggle` component
- i18n Integration: React-i18next with context

## SECURITY & PRIVACY

Protections:

- Phone-based authentication
- Age verification (20+ requirement)
- GDPR consent management
- Privacy settings (control profile visibility)
- Secure Supabase storage

Compliance:

- Explicit consent for data categories
- Right to deletion and data export
- Transparent data usage policies
- Swedish data protection standards

## TECHNICAL STACK

Frontend:

- Framework: React 18 + TypeScript + Vite
- Styling: Tailwind CSS + Framer Motion
- State: React Query + Context API
- Routing: React Router v6
- Icons: Lucide React
- Forms: React Hook Form

Backend:

- Database: Supabase PostgreSQL
- Auth: Supabase Auth (phone/SMS)

- Storage: Supabase Storage
- Realtime: Supabase Subscriptions
- Edge Functions: Deno + TypeScript

## AI/ML:

- Gateway:
- Model: Google Gemini 2.5 Flash
- Functions: Edge functions for processing

## DEPLOYMENT READY

## Environment Setup:

```
env
```

```
VITE_SUPABASE_URL=your_project_url
```

```
VITE_SUPABASE_ANON_KEY=your_anon_key
```

```
LOVABLE_API_KEY=your_ai_gateway_key
```

## Build Commands:

- `npm run dev` - Local development
- `npm run build` - Production build
- `npm run preview` - Build preview

## Hosting Options:

- Frontend: Vercel, Netlify, or similar
- Backend: Supabase (all-in-one)
- Edge Functions: Deno Deploy

## ANALYTICS & MONITORING

## Tracking (Consent-based):

1. Essential: App performance, errors
2. Analytics (opt-in): Feature usage, flow drop-offs
3. Marketing (opt-in): Campaign effectiveness
4. Personalization (opt-in): Behavior patterns

## Key Metrics:

- User acquisition (signup conversion)
- Engagement (daily matches, messages sent)
- Retention (D1, D7, D30 rates)
- Success (mutual match conversion)

## DEVELOPMENT WORKFLOW

## Code Standards:

- TypeScript strict mode
- ESLint + Prettier configuration
- Component-based architecture
- Custom hooks for business logic
- Comprehensive error boundaries

## Testing Strategy:

- Unit tests for utilities and hooks
- Integration tests for auth flows
- E2E tests for critical user journeys
- Performance testing for animations

## ERROR HANDLING

## Common Scenarios:

- Network failures (graceful degradation)
- AI service downtime (fallback content)
- Photo upload failures (retry prompts)
- Age verification failures (clear messaging)

- Match expiration (countdown warnings)

## User-Friendly Messages:

- Swedish language by default
- Actionable next steps
- Clear error explanations
- Support contact options

## GROWTH & SCALING

### Immediate Features:

- All core MVP features implemented
- AI-powered matching and conversations
- Complete authentication flow
- Gamification system
- PWA capabilities

### Next Phase:

- Video profile support
- Voice messages in chat
- Group dating events
- Advanced matching algorithms
- Premium subscription features

### International Expansion:

- Additional language support
- Cultural adaptations
- Local payment methods
- Regional marketing campaigns

## TARGET USER

- Age: 20-35 years old
- Location: Sweden (initially)
- Values: Meaningful connections, personality compatibility
- Tech Level: Smartphone comfortable, app-savvy
- Language: Swedish primary, English secondary

## UNIQUE VALUE PROPOSITION

1. Personality-First: Deeper compatibility than appearance-based apps
2. AI-Assisted: Reduces conversation anxiety with smart icebreakers
3. Swedish Context: Designed specifically for Swedish dating culture
4. Privacy-Focused: Age-verified, GDPR-compliant community
5. Engaging Experience: Gamification and achievements for retention
6. Accessible: PWA - no app store download required

## SUCCESS CRITERIA

Business Metrics:

- User acquisition cost < lifetime value
- 30%+ monthly active user retention
- 25%+ conversion from match to conversation
- 15%+ conversion from conversation to date

Technical Metrics:

- < 3-second initial load time
- < 100ms chat message delivery
- 99.5%+ app uptime
- < 1% error rate in core flows

User Satisfaction:

- 4.5+ star app store rating
- Positive social media sentiment
- High NPS (Net Promoter Score)
- Low uninstall rate

**COMPLETE PRODUCTION-READY APP** - All features implemented, tested, and ready for deployment. The app represents a modern approach to online dating with personality compatibility at its core, supported by AI technology and a delightful user experience.