

Colors of Life - Project Requirements Document

Product Overview

Colors of Life is an AI-powered fashion platform that revolutionizes online shopping by enabling users to create accurate digital representations of themselves and virtually try on clothing before purchasing. The platform integrates Kling AI's virtual try-on technology to deliver a seamless and realistic clothing visualization experience.

Core Value Proposition

- **For Shoppers:** See exactly how clothes will look and fit on your body before purchasing
- **For Retailers:** Reduce return rates (target: 40% reduction) and increase customer satisfaction
- **For Designers:** Gain exposure alongside established brands on a unified platform

User Personas

Fashion-Forward Consumer (Primary)

- **Name:** Maya, 28
- **Background:** Urban professional, shops online frequently
- **Pain Points:**
 - Uncertain about fit and appearance when shopping online
 - Tired of ordering multiple sizes and returning items
 - Wants to discover new brands but hesitant to try unknown sizes
- **Goals:**
 - Find clothes that fit perfectly without trial and error
 - Discover new styles that complement her body type
 - Shop efficiently without excessive returns

Retailer Partner (Secondary)

- **Name:** Elevate Apparel, mid-sized fashion brand
- **Pain Points:**
 - High return rates cutting into profitability
 - Customer hesitation to try new styles online
 - Limited technological resources for advanced e-commerce

- **Goals:**
 - Reduce returns and associated costs
 - Increase customer confidence and loyalty
 - Expand digital presence without massive tech investment

Key Features & Requirements

1. User Authentication & Onboarding

- **1.1 User Registration**
 - Email/social sign-up options
 - Strong password requirements
 - Clear privacy communications
- **1.2 Style Quiz**
 - Capture style preferences (casual, formal, etc.)
 - Color preferences
 - Brand affinities
- **1.3 Body Measurement**
 - Photo/video-based body scanning
 - Manual measurement input option
 - Privacy-first approach with clear data usage explanations

2. Home & Discovery Experience

- **2.1 Personalized Home Feed**
 - AI-curated recommendations based on style preferences
 - Recent activity and saved items
 - New arrivals from favorite brands
- **2.2 Style Stream**
 - TikTok-like vertical video feed for fashion discovery
 - Creator content showcasing styling tips and trends
 - Brand spotlights and new collection announcements
 - Interactive elements for immediate try-on
- **2.3 Search & Navigation**
 - Text-based search with autocomplete

- Visual search capability
- Category and filter-based browsing
- Brand directory

3. Virtual Try-On Experience with Kling AI

- **3.1 Digital Avatar Creation**
 - User-uploaded reference images
 - Support for full-body photos
 - Secure image processing and storage
- **3.2 Kling AI Integration**
 - API-based virtual try-on using Kling's technology
 - Support for single clothing items (upper, lower, dress)
 - Support for clothing combinations (upper + lower) with Kling's v1.5 model
 - Realistic rendering with proper draping and fit
- **3.3 Try-On Interface**
 - Intuitive controls for clothing selection
 - Quick switching between different garments
 - Option to share try-on results
 - Save favorite outfits
- **3.4 Size Recommendation**
 - AI-based size suggestions
 - Fit analysis (tight, regular, loose)
 - Cross-brand size standardization

4. Shopping & Checkout

- **4.1 Product Details**
 - Comprehensive information (materials, care, origin)
 - Price and availability
 - User reviews and ratings
- **4.2 Shopping Bag**
 - Multi-brand purchase capability
 - Order summary and editing

- Saved for later functionality
- **4.3 Checkout Process**
 - Streamlined, secure payment
 - Address management
 - Order confirmation and tracking

5. AI Assistance

- **5.1 AI Stylist**
 - Conversational fashion advice
 - Outfit recommendations
 - Style education and tips
- **5.2 Fit Analysis**
 - Detailed explanation of fit characteristics
 - Alternative suggestions for better fit
 - Confidence ratings for recommendations

6. Retailer Integration

- **6.1 Brand Portal**
 - Product catalog management
 - Inventory and pricing updates
 - Performance analytics
- **6.2 Product Digitization**
 - Standardized process for preparing product images for Kling AI
 - Material property specification
 - Size chart integration

Technical Requirements for Kling AI Integration

API Integration

- **Authentication:** Implement secure authentication with Kling AI's API
- **Image Processing:**
 - Support for image upload in Base64 format or via URL
 - Ensure compliance with image requirements (file size <10MB, resolution >300x300px)

- Support formats: JPG/JPEG/PNG
- **Request Handling:**
 - Implement task creation API calls
 - Task status tracking
 - Error handling and retry mechanisms
- **Response Processing:**
 - Parse and store generated image URLs
 - Implement image caching for performance
 - Handle callback notifications where appropriate

Model Selection

- Support for Kling AI models:
 - kolors-virtual-try-on-v1: Basic try-on functionality
 - kolors-virtual-try-on-v1-5: Advanced features including combination clothing support

Performance Requirements

- Virtual try-on rendering response within acceptable timeframes
- Smooth integration with the platform's UI
- Efficient handling of image processing and storage
- Scalability to handle concurrent user requests

Performance Requirements

- Virtual try-on rendering feedback to user within 5 seconds (status updates)
- Avatar creation process completion in under 5 minutes
- 99.9% uptime for the platform
- Support for minimum 100,000 concurrent users
- Mobile-first design with responsive desktop experience

User Experience Requirements

- Clear, intuitive navigation
- Minimal steps to try on items (3 clicks or less)
- Apple-like clean aesthetic with minimalist UI
- Engaging but not overwhelming animations

- Accessibility compliance (WCAG AA)

Success Metrics

- Reduction in return rates (target: 40% reduction)
- User retention rate (target: 60% 30-day retention)
- Try-on to purchase conversion rate (target: 15%)
- Average session duration (target: 8+ minutes)
- Net Promoter Score (target: 40+)

Release Plan

Phase 1: MVP (3 months)

- Basic authentication and profile creation
- Initial Kling AI virtual try-on integration for limited product categories
- Core shopping functionality

Phase 2: Enhanced Experience (3 months)

- Style Stream social discovery feature
- Advanced AI stylist capabilities
- Expanded product categories
- Upgrade to Kling AI v1.5 for combination clothing support

Phase 3: Scaling (6 months)

- Full retailer integration capabilities
- Advanced analytics for brands
- International expansion features
- Enhanced Kling AI integration with additional features

Future Considerations

- Potential development of custom virtual try-on technology to complement Kling AI
- AR try-on capabilities for in-store experiences
- Fashion shows and live events within the platform
- Sustainable fashion metrics and education
- Marketplace for pre-owned fashion items

