Software Requirements Specification

for

Tinder For Clothes

Version 1.0 approved

Prepared by: Krishna Aggarwal, Aksh Modi, Sahil Kumar Singh

MANIPAL UNIVERSITY JAIPUR

25-01-2026

Table of Contents

Revision History

Name	Date	Reason For Changes	Version
Krishna Aggarwal	25-01-2026	Initial Draft	1.0
Aksh Modi	26-01-2026	Initial Draft	1.1
Sahil Singh	27-01-2026	Initial Draft	1.2

1. Introduction

This document defines the Software Requirements Specification (SRS) for the project TINDER FOR CLOTHES (TFC).
The purpose of this document is to clearly describe the functional and non-functional requirements, system behaviour, constraints, interfaces, and design considerations for the TFC platform.
TFC is a digital wardrobe management and fashion recommendation system that allows users to:

- Digitize their closet
- Get AI-based outfit recommendations
- Receive culturally appropriate outfit suggestions
- Connect with local Indian vendors
- Access personalized fashion guidance
- Manage family wardrobes
- This SRS serves as a reference for:
- Developers
- Designers
- Project supervisors
- Testers
- Stakeholders
- Academic evaluators

1.1 Purpose

This document serves as a reference for developers, designers, project guides, testers, and stakeholders by establishing a common understanding of what the system is expected to achieve and how it should function. It acts as a foundation for system design, development, testing, implementation, and future enhancements.

The SRS covers all major components of the TFC platform, including digital wardrobe management, outfit recommendation, cultural clothing integration, family account features, vendor marketplace, fashion trend updates, and security mechanisms, ensuring a structured and well-defined development process.

1.2 Document Conventions

The following conventions are used:

- Section headings follow IEEE SRS numbering format.
- REQ-xx is used to uniquely identify each requirement.
- “Shall” indicates mandatory requirements.
- “Should” indicates recommended requirements.
- “May” indicates optional features.
- High / Medium / Low priority levels are used for features.
- Technical terms are defined in the Glossary.

1.3 Intended Audience and Reading Suggestions

- Intended Audience:
- Software Developers
- UI/UX Designers
- Project Guides and Faculty
- Test Engineers
- System Architects
- Startup Investors
- Product Managers
- Academic Evaluators

1.4 Product Scope

The "AI Visualized Outfit Decider" is a comprehensive mobile application designed to revolutionize personal wardrobe management for Indian users by combining three transformative technologies: Artificial Intelligence, Augmented Reality, and cultural fashion intelligence.
Business Objectives
Address Wardrobe Decision Fatigue — Solve the daily "what to wear" problem with intelligent, personalized suggestions
Promote Sustainable Fashion — Reduce wasteful impulse purchases and maximize utilization of existing wardrobe items
Bridge Technology and Culture — First India-centric virtual wardrobe system respecting regional and cultural preferences
Empower Local Vendors — Direct marketplace access for small-scale designers with cost-effective digital presence
Improve Fashion Accessibility — Democratize styling advice and reach tier II and III cities

Goals:
- Reduce decision fatigue in outfit selection
- Promote Indian cultural clothing
- Digitize personal wardrobes
- Support local Indian vendors and startups
- Provide AI-based fashion assistance
- Enable family-based wardrobe management
- Improve fashion awareness and confidence

Benefits:
- Time saving
- Cultural authenticity
- Economic support to local vendors
- Sustainable fashion consumption
- Personalized styling
- Smart wardrobe organization

1.5 References

- IEEE Recommended Practice for Software Requirements Specifications (IEEE 830 / 29148)
- Web Development Standards (HTML5, CSS3, JavaScript)
- Text Processing and ML Concepts (for anomaly and spam detection – reference level)

2. Overall Description

2.1 Product Perspective

TFC is a new standalone system, not a modification of any existing application.
It integrates features of:

- Smart closet systems
- Fashion recommendation engines
- Cultural fashion platforms
- E-commerce integration
- AI-based personalization systems
- It will function as:
- Mobile application (future)
- Web application (initial deployment)
- Cloud-based platform

2.2 Product Functions

- User registration and authentication
- Digital wardrobe creation
- Clothing upload and categorization
- Outfit recommendation system
- Cultural outfit selection
- Festival-based clothing suggestions
- Indian size chart system
- Weather-based outfit recommendations
- Fashion trend updates
- Family account management
- Local vendor marketplace
- Premium designer services
- Virtual styling simulator
- AI-based color palette matching

2.3 User Classes and Characteristics

User Class	Description	Key Characteristics	System Access Level
General Users	Regular app users	Use for daily outfit selection and wardrobe management	Basic
Fashion-Conscious Users	Trend-focused users	Follow trends, use styling features	Advanced
Family Users	Parents and children	Shared wardrobes, size-based clothing sharing	Family Access
Vendors	Local sellers and designers	Upload products, manage listings, interact with users	Vendor Panel
Admin Users	System administrators	System monitoring, user/vendor management, verification	Full Control

2.4 Operating Environment

- *Client Devices: Smartphones, tablets, laptops, and desktop computers*
- *Platforms: Web application (initial), Mobile application (Android and iOS – future scope)*
- *Operating Systems: Windows, macOS, Linux, Android, iOS*
- *Server Environment: Cloud infrastructure (e.g., AWS, Azure, or equivalent)*
- *Database Systems: SQL/NoSQL databases*
- *Network: Internet-based access using secure HTTPS protocol*
- *External Services: Weather APIs, payment gateways, AI/ML services*
- *The system shall be designed to support scalability, high availability, and secure access across all supported platforms.*
- *Design and Implementation Constraints*
- Systems must be implemented using web technologies
- Responsive UI design is mandatory
- Secure handling of user data
- Internet connection required for advanced features

2.5 User Documentation

- User manual (PDF)
- Online help system
- Video tutorials
- In-app onboarding guide
- Vendor onboarding manual
- Admin dashboard guide

2.6 Assumptions and Dependencies

- Users have internet access
- Vendors are digitally literate
- Users upload accurate clothing data
- Weather APIs are reliable

- Dependencies:
- Payment gateway services
- Cloud hosting providers
- Third-party APIs
- AI libraries
- Vendor logistics services

3. External Interface Requirements

3.1 User Interfaces

- Mobile-responsive UI
- Simple navigation
- Dashboard-based layout
- Drag-and-drop wardrobe upload
- Visual outfit preview
- Cultural clothing categories
- Family account dashboards
- Vendor storefront UI
- Premium styling UI

3.2 Software Interfaces

- Smartphone cameras (for clothing upload)
- Server infrastructure
- Cloud storage systems
- IoT (future scope – smart closets)

3.3 Communications Interfaces

The TasteTracker system shall support the following communication interfaces:

- HTTPS protocol for secure client-server communication
- REST-based internal APIs for data exchange
- JSON format for request and response data transfer

4. System Features (Functional Requirements)

4.1 User Registration and Authentication (Priority: High)

FR-01: The system shall allow users to register using a valid email ID or phone number and password.
FR-02: The system shall allow users to log in using registered credentials.
FR-03: The system shall validate user credentials before granting access.
FR-04: The system shall allow users to securely log out of the system.
FR-05: The system shall prevent unauthorized access to user accounts.
FR-06: The system shall provide password recovery and reset functionality.

4.2 Digital Wardrobe Management (Priority: High)

FR-07: The system shall allow users to upload images of their clothing items.
FR-08: The system shall allow users to categorize clothes by type, color, season, and occasion.
FR-09: The system shall allow users to edit or delete uploaded clothing items.
FR-10: The system shall store clothing data in a digital wardrobe.
FR-11: The system shall display a structured digital closet interface to users

4.3 Outfit Recommendation System (Priority: High)

FR-12: The system shall suggest daily outfits based on user wardrobe data.
FR-13: The system shall recommend outfits based on weather conditions.
FR-14: The system shall recommend outfits based on occasions and events.
FR-15: The system shall apply color palette matching in outfit suggestions.
FR-16: The system shall allow users to manually customize recommended outfits.

4.4 Cultural and Festival-Based Clothing Suggestions (Priority: High)
FR-17: The system shall provide region-wise traditional clothing options.
FR-18: The system shall recommend outfits based on festivals and cultural events.
FR-19: The system shall maintain cultural authenticity in clothing suggestions.
FR-20: The system shall connect users with local cultural clothing vendors.

4.5 Family Account Management (Priority: Medium)
FR-21: The system shall allow multiple user profiles under a single family account.
FR-22: The system shall allow shared wardrobe access within a family account.
FR-23: The system shall support size-based clothing sharing between family members.
FR-24: The system shall allow parents to monitor children’s wardrobe usage.

4.6 Local Vendor Marketplace (Priority: High)
FR-25: The system shall allow vendors to create seller accounts.
FR-26: The system shall allow vendors to upload and manage product listings.
FR-27: The system shall allow users to browse vendor products.
FR-28: The system shall allow users to purchase products from vendors.
FR-29: The system shall verify vendors before allowing sales.

4.7 Fashion Trends and Updates (Priority: Medium)
FR-30: The system shall display trending fashion updates.
FR-31: The system shall notify users about seasonal fashion trends.
FR-32: The system shall recommend trending outfits to users.

4.8 Premium Designer Services (Priority: Low)
FR-33: The system shall provide premium subscription plans.
FR-34: The system shall allow premium users to access personal designers.
FR-35: The system shall provide curated wardrobe services for premium users.

5. Other Nonfunctional Requirements

5.1 Performance Requirements
NFR-01: The system shall load primary user interfaces within 3 seconds under normal network conditions.
NFR-02: The system shall support at least 1000 concurrent users without performance degradation.
NFR-03: The system shall process outfit recommendations in real time.
NFR-04: The system shall support scalable cloud deployment.

5.2 Safety Requirements
NFR-05: The system shall prevent accidental loss of user wardrobe data.
NFR-06: The system shall maintain automated data backup mechanisms.
NFR-07: The system shall ensure data recovery in case of system failure.

5.3 Security Requirements
NFR-08: The system shall encrypt user passwords before storage.
NFR-09: The system shall use secure HTTPS communication for all data exchange.
NFR-10: The system shall implement role-based access control.
NFR-11: The system shall restrict admin-level features to authorized users only.
NFR-12: The system shall protect user data from unauthorized access.
NFR-13: The system shall comply with data privacy regulations.

5.4 Software Quality Attributes
NFR-14: The system shall be user-friendly and easy to navigate.
NFR-15: The system shall be scalable to support future growth.
NFR-16: The system shall be reliable with minimal downtime.
NFR-17: The system shall be maintainable and modular.
NFR-18: The system shall be portable across platforms.

5.5 Business Rules
NFR-19: Only verified vendors shall be allowed to sell products.
NFR-20: Premium services shall be accessible only to subscribed users.
NFR-21: Cultural clothing must follow authenticity guidelines.
NFR-22: Family sharing shall be restricted to verified family members.
NFR-23: User data shall not be sold to third parties.

6. Other Requirements/ Future Scope

- Multi-language support
- Indian cultural database
- AI model training system
- Analytics dashboard
- Recommendation learning engine

- Legal compliance modules
- Sustainable fashion indicators.

Appendix A: Glossary

• **SRS**: Software Requirements Specification
• **UI**: User Interface
• **UX**: User Experience
• **AI**: Artificial Intelligence
• **ML**: Machine Learning
• **API**: Application Programming Interface
• **AR**: Augmented Reality
• **TFC**: Tinder for Clothes
• **RFID**: Radio Frequency Identification
• **IoT**: Internet of Things

Appendix B: Analysis Models

• Use Case Diagram
• Data Flow Diagram (DFD Level 0)
• Data Flow Diagram (DFD Level 1)
• Entity Relationship (ER) Diagram
• System Architecture Diagram
• Workflow Diagram

Appendix C: To Be Determined (TBD) List

TBD-01: Final AI model architecture and training dataset
TBD-02: Advanced AI accuracy and recommendation metrics
TBD-03: Weather API integration details
TBD-04: Premium subscription pricing model
TBD-05: Vendor commission structure
TBD-06: AR virtual try-on integration scope
TBD-07: Logistics and delivery integration model
TBD-08: Data storage scaling strategy