

CouponSwap

Product Requirements Document (PRD)

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| Project Name: | CouponSwap - P2P Coupon Exchange Marketplace |
| Document Version: | 1.0 |
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| Status: | Initial Draft - Ready for Development |

1. Executive Summary

CouponSwap is a peer-to-peer (P2P) marketplace platform that solves the problem of wasted promotional coupons and rewards. Users frequently receive coupons for products or services they don't need (beard oil from pizza delivery, fashion discounts they won't use, etc.), while others actively search for these exact deals. Our platform creates a virtual economy where users can exchange unwanted coupons using a credit-based system, ensuring maximum utilization and value extraction from promotional offers.

2. Problem Statement

2.1 Current Pain Points

- **Coupon Wastage:** 60-70% of promotional coupons expire unused because recipients don't need the products
- **Mismatched Targeting:** Marketing algorithms send generic offers that don't match user preferences
- **No Secondary Market:** Users cannot legally or easily transfer coupons to interested parties
- **Lost Value:** Both consumers and brands lose value when coupons go unused
- **Discovery Problem:** People who need specific coupons have no centralized place to find them

2.2 Target Audience

- **Primary:** College students and young professionals (18-30 years) who frequently order online
- **Secondary:** Budget-conscious consumers looking for deals
- **Tertiary:** Deal hunters and coupon enthusiasts

3. Product Vision & Goals

3.1 Vision Statement

To create the largest peer-to-peer coupon exchange marketplace in India, reducing promotional waste by 50% and helping users save ₹500-1000 monthly through intelligent coupon redistribution.

3.2 Product Goals

- Enable seamless coupon exchange within 3 clicks
- Achieve 10,000 active users in the first 6 months
- Maintain 95% coupon validity rate (minimize fraud)
- Build trust through user verification (KYC) and rating system
- Create a sustainable virtual economy using credits as currency

4. Core Features & Requirements

4.1 MVP Features (Phase 1 - Must Have)

User Authentication

- Email/Password registration and login
- OTP verification for phone number (simulated KYC)
- Government ID number collection during signup
- Email verification flow
- Password reset functionality

Coupon Listing & Upload

- Manual coupon entry form (Title, Description, Code, Price, Expiry)
- Category selection (Food, Fashion, Travel, Tech, etc.)
- Optional image upload for coupon screenshot
- Automatic expiry tracking
- Seller profile linking

Marketplace Discovery

- Grid view of all available coupons
- Filter by category, price range, expiry date
- Search functionality (by brand, keyword)
- Sort by: Newest, Price (Low to High), Expiring Soon
- Coupon detail page with full information

Credit System

- Virtual currency: 'Karma Coins' or 'CouponCredits'
- New users receive 50-100 credits on signup
- Sellers earn credits when coupons are purchased
- Buyers spend credits to unlock coupon codes
- Credit balance visible in user profile
- Transaction history tracking

Transaction Flow

- Buy button with credit check

- Instant credit deduction from buyer
- Instant credit addition to seller
- Reveal hidden coupon code to buyer post-purchase
- Mark coupon as 'sold' automatically
- Transaction logging for both parties

User Profile & Dashboard

- View credit balance
- My Listed Coupons (Active/Sold)
- My Purchased Coupons
- Account settings (Edit profile, Change password)
- Transaction history

Direct Messaging (Chat)

- One-to-one chat between buyer and seller
- Real-time messaging (Supabase Realtime)
- Pre-purchase questions (Is this valid? Any restrictions?)
- Chat history per transaction
- Notification badge for new messages

4.2 Phase 2 Features (AI-Powered Enhancements)

AI Coupon Scanner (OCR)

- Upload coupon image/screenshot
- Auto-extract: Code, Brand, Expiry Date, Discount %
- Auto-fill listing form
- Support for multiple image formats (JPG, PNG, PDF)
- Accuracy: 90%+ for standard coupon formats

Smart Recommendations

- ML-based: Suggest coupons based on user's past purchases
- Category preference learning
- Location-based suggestions (restaurants near you)
- Collaborative filtering (Users like you also bought...)
- Urgency alerts (Expiring in 24 hours!)

Price Suggestion AI

- Analyze similar coupons in marketplace
- Suggest optimal credit price for faster sale
- Display average price for similar categories
- Dynamic pricing based on demand/supply

Fraud Detection

- AI flags suspicious listings (duplicate codes, unrealistic discounts)
- User reputation scoring
- Automated verification for high-value coupons
- Pattern detection for fake accounts

Chat Moderation

- Auto-flag abusive language
- Detect spam messages
- Suggest helpful responses to common queries

5. User Stories

Sarah - The Frequent Orderer

Sarah orders Domino's pizza twice a week and always receives beard grooming coupons she never uses.

- She signs up on CouponSwap
- Lists her unused Beard Oil coupon for 20 credits
- Earns credits and uses them to buy a Starbucks coupon she actually wants
- **Success Metric:** Sarah saves ■200/month by exchanging unwanted coupons

Raj - The Budget-Conscious Student

Raj is always looking for food delivery discounts but rarely gets good coupons in his email.

- Browses CouponSwap marketplace
- Filters for 'Food' category and 'Expiring Soon' (cheaper prices)
- Buys a Swiggy 50% off coupon for 15 credits
- Uses it for dinner and saves ■150
- **Success Metric:** Raj finds 3-5 usable coupons weekly

Priya - The Deal Hunter

Priya loves finding great deals and has a collection of coupons she's accumulated.

- Lists all her unused fashion coupons
- Becomes a 'trusted seller' with 50+ positive ratings
- Monetizes by selling premium credits packages
- Builds reputation as reliable seller
- **Success Metric:** Priya earns 500+ credits monthly

6. Non-Functional Requirements

| Category | Requirement | Target Metric |
|-------------|------------------------|-------------------------|
| Performance | Page load time | < 2 seconds |
| | Search results display | < 500ms |
| | Real-time chat latency | < 100ms |
| Security | Password encryption | bcrypt with salt |
| | API authentication | JWT tokens |
| | Data encryption | HTTPS/TLS 1.3 |
| | PII protection | GDPR/DPDP compliant |
| Scalability | Concurrent users | 10,000+ |
| | Database queries | Indexed, < 100ms |
| | File storage | CDN for images |
| Reliability | Uptime | 99.5% |
| | Backup frequency | Daily automated |
| | Error recovery | Graceful degradation |
| Usability | Mobile responsive | 100% features on mobile |
| | Accessibility | WCAG 2.1 Level A |
| | Onboarding time | < 3 minutes |

7. Success Metrics & KPIs

User Acquisition

- 1,000 registered users in Month 1
- 5,000 users by Month 3
- 10,000 users by Month 6

Engagement

- 40% Weekly Active Users (WAU)
- Average 3 coupons listed per user
- 2 transactions per user per month

Marketplace Health

- 70% of listed coupons sold within 7 days
- Average credit price: 10-30 credits per coupon
- < 5% fraud/invalid coupon reports

Technical

- < 1% error rate on transactions
- 99% successful coupon reveals
- < 2 second average page load

8. Monetization Strategy (Future)

Credit Purchases

- ■50 for 100 credits
- ■200 for 500 credits (20% bonus)
- ■500 for 1500 credits (50% bonus)

Premium Membership

- ■99/month for verified badge
- Priority listing in search results
- Advanced analytics on listings
- Unlimited chat history

Brand Partnerships

- Featured coupon slots for brands
- Sponsored recommendations
- Bulk coupon distribution deals

Transaction Fee (Later Stage)

- 5% platform fee on high-value transactions (>100 credits)
- Only after achieving 50,000+ user base

9. Risk Analysis & Mitigation

| Risk | Impact | Mitigation Strategy |
|------------------------|--------|---|
| Fraudulent coupons | High | User ratings, AI fraud detection, Report mechanism |
| Low user adoption | High | Campus marketing, referral rewards, social media campaigns |
| Expired coupons listed | Medium | Auto-remove expired listings, Expiry alerts |
| Privacy concerns (KYC) | Medium | Clear privacy policy, Minimal data collection, Encryption |
| Legal issues with T&C | Medium | Disclaimer: "Resale at own risk", User agreement acceptance |
| Platform abuse/spam | Low | Rate limiting, Email verification, Captcha |

10. Development Timeline & Milestones

| Phase | Duration | Deliverables | Status |
|------------------------------|-----------|--|---------|
| Phase 0: Planning | 1 week | PRD, Design docs, Tech stack finalized | Current |
| Phase 1: MVP Development | 3-4 weeks | Core features: Auth, Listing, Marketplace, Credits, Chat | Next |
| Phase 2: Testing & Bug Fixes | 1 week | QA testing, Bug fixes, Performance optimization | Planned |
| Phase 3: Beta Launch | 2 weeks | 100 beta users, Feedback collection, Iterations | Planned |
| Phase 4: AI Features | 2-3 weeks | OCR scanner, Recommendations, Fraud Detection | Planned |
| Phase 5: Public Launch | 1 week | Marketing campaign, Full deployment, Monitoring | Planned |

Total Estimated Timeline: 10-12 weeks

11. Appendix

11.1 Glossary

- **Credits/Karma Coins:** Virtual currency used within the platform for transactions
- **KYC:** Know Your Customer - Identity verification process
- **P2P:** Peer-to-Peer - Direct exchange between users
- **OCR:** Optical Character Recognition - AI text extraction from images
- **MVP:** Minimum Viable Product - Core features for initial launch
- **WAU:** Weekly Active Users - Users who engage with app at least once per week

11.2 Competitive Landscape

While platforms like Zingoy and CardTonic exist for gift card trading, CouponSwap differentiates itself by focusing on small promotional coupons (the 'long tail' of offers) that other platforms ignore. Our credit-based economy removes the complexity of real money transactions, making it ideal for a student project and rapid iteration.

11.3 Contact & Feedback

This is a living document. For questions, feedback, or suggestions, please reach out via GitHub Issues or project email. All stakeholder input is valuable for improving the product.