unravel

Knit & Crochet Community

Product Requirements Document

Version: 1.4
Date: February 09, 2026
Author: Emi
Status: Draft
Platform: Web (Next.js on Vercel)

Table of Contents

1. Executive Summary

Unravel is a web-based project management and community platform purpose-built for knitters and crocheters. It provides crafters with a personal notebook to track active projects, manage their yarn stash, discover and organize patterns, and monitor progress through intuitive row counters. The application fills a gap in the fiber arts community by offering a modern, dark-themed interface that feels native to the creative process, replacing scattered spreadsheets, paper notes, and generic project management tools with a dedicated, craft-aware experience.

The platform is currently deployed as a Next.js application on Vercel, with user authentication already in place. It is in active development with core notebook functionality operational and a growing set of organizational features.

2. Product Vision & Goals

Vision Statement

To become the go-to digital companion for fiber artists—a place where every stitch, skein, and pattern lives in one beautifully organized notebook that sparks joy and keeps crafters inspired.

Product Goals

Organize: Give crafters a single place to track all active, paused, and completed knitting/crochet projects with rich metadata.

Track: Provide real-time row counting and progress visualization so users never lose their place in a pattern.

Curate: Enable users to build a personal library of patterns and a comprehensive yarn stash inventory.

Discover: Offer a browsable pattern catalog with filtering by craft type, category, weight, and price.

Delight: Deliver a dark-themed, visually appealing interface with color-coded projects and intuitive navigation.

3. Target Users & Personas

Unravel targets a broad spectrum of fiber artists, from casual hobbyists to dedicated crafters who manage multiple simultaneous projects. The primary audience skews toward digitally comfortable crafters who value organization and want a modern alternative to paper-based tracking.

Persona	Description	Key Needs
The Multi-Tasker	Juggles 3–5 projects simultaneously across knitting and crochet	Project status tracking, row counters, quick switching
The Stash Builder	Accumulates yarn over time and needs to track inventory	Yarn inventory with weight/brand search, linking yarn to projects
The Pattern Collector	Loves browsing and saving patterns for future inspiration	Pattern library, favorites, queue, filtering/search
The Beginner	New to fiber arts and learning as they go	Simple project creation, happiness tracking, notes

4. Current Feature Set

The following features are currently implemented and live on the production deployment:

Feature Area	Status	Description
User Authentication	Live	Email-based sign-in with personalized dashboard
Dashboard / Home	Live	Notebook summary, in-progress projects, quick actions
Project Management	Live	Create/view/edit/filter with 4 status states
Row Counter	Live	Per-project +/–, reset, full-screen mode
Progress Tracking	Live	Visual progress bar on project detail pages
Pattern Library	Live	Searchable catalog with craft/category/weight/price filters
Yarn Stash	Live	Inventory with search, weight filter, aggregate stats
Project Queue	Live	Waiting list for future projects
Favorites	Live	Save and organize favorite patterns
Quick Actions	Live	Dashboard shortcuts: New Project, Add Pattern, Add Yarn, Browse

5. Information Architecture

The application is organized around a clear navigational hierarchy:

Primary Navigation

- **My Notebook** (dropdown): Projects, Stash, Queue, Favorites
- **Patterns:** Browsable pattern catalog with search and filters
- **Yarns:** Personal yarn stash management
- **User Account:** Profile access (top-right)

Page Hierarchy

- **Home (Dashboard)** → Notebook summary + in-progress projects + quick actions
- **Projects List** → All projects with status filter tabs (All, In Progress, Finished, Hibernating, Frogged)
- **Project Detail** → Row counter, progress bar, project metadata, edit capability
- **New Project Form** → Comprehensive creation with name, status, craft, pattern, needle size, gauge, yarn, date, happiness, notes
- **Patterns** → Search + multi-filter catalog (craft, category, weight, price)
- **Yarn Stash** → Search + weight filter, aggregate stats (yarns, skeins, yards)
- **Queue** → Future project waiting list with manual add and pattern browsing
- **Favorites** → Saved patterns collection

6. Detailed Feature Requirements

6.1 Project Management

6.1.1 Project Creation

Users can create new projects with the following data fields:

Field	Type	Required	Notes
Project Name	Text input	Yes	Free-text, placeholder: "My cozy sweater"
Status	Dropdown	Yes	In Progress, Finished, Hibernating, Frogged
Craft	Dropdown	Yes	Knitting, Crochet
Pattern Name	Text input	No	Links to pattern library
Needle/Hook Size	Text input	No	e.g., US 7 / 4.5mm
Gauge	Text input	No	e.g., 20 sts x 26 rows = 4 in
Made For	Text input	No	Recipient of the finished item
Yarn from Stash	Dropdown	No	Links to user's yarn stash
Started	Date picker	No	Defaults to current date
Happiness	Emoji selector	No	5-point scale with emoji faces
Notes	Textarea	No	Free-form notes area

6.1.2 Project List View

- Color-coded project cards with unique border colors per project
- Large row count displayed prominently on each card
- Status badge (e.g., "In Progress") on each card
- Filter tabs: All, In Progress, Finished, Hibernating, Frogged—each showing a count
- Quick Add card for rapid project creation
- "+ New Project" button for full-form creation

6.1.3 Project Detail View

- Breadcrumb navigation (Projects / Project Name)
- Color-coded project icon with current row count
- Row Counter button and Edit button in header
- Progress bar showing completion percentage
- Dedicated Row Counter section with large display, +/− buttons, reset, and full-screen mode
- Details section showing craft type and other project metadata

6.2 Row Counter

The row counter is a central feature of the project experience. It provides a large, easy-to-tap counter display that tracks the current row number for each project. Users can increment or decrement the count with clearly labeled buttons, reset to zero, and enter a full-screen mode for distraction-free counting while actively working on a project. The counter persists across sessions so users never lose their place.

6.3 Pattern Library

The pattern library serves as both a personal collection and a browsable catalog:

- Search by pattern name or designer name
- Filter by craft type (knitting, crochet, etc.)
- Filter by category (garments, accessories, home decor, etc.)
- Filter by yarn weight
- Filter by price (free vs. paid)
- Add new patterns via "+ Add Pattern" button
- Empty state with "Add the first pattern" call-to-action

6.4 Yarn Stash

The yarn stash provides a comprehensive inventory management system:

- Aggregate statistics at page level: total yarns, skeins, and yards
- Search by yarn name or brand
- Filter by yarn weight
- Add new yarn entries via "+ Add Yarn" button
- Link yarns to projects during project creation
- Empty state with "Add your first yarn" prompt

6.5 Queue & Favorites

The Queue lets users maintain a wish list of patterns they plan to make next. Users can add items manually or browse the pattern catalog and add directly. The Favorites section provides a curated collection of saved patterns for quick reference and inspiration, with a prompt to browse patterns when empty.

7. Non-Functional Requirements

Requirement	Target	Notes
Performance	Page load < 2s	Leverage Next.js SSR/SSG for fast initial loads
Responsiveness	Mobile-first design	Row counter and cards must be touch-friendly
Accessibility	WCAG 2.1 AA	Dark theme must meet contrast ratios; screen reader support
Availability	99.5% uptime	Vercel hosting provides high availability by default
Security	Authenticated access	All notebook data is private and user-scoped
Scalability	10,000+ concurrent	Stateless architecture via Vercel serverless functions
Browser Support	Evergreen browsers	Chrome, Firefox, Safari, Edge (latest 2 versions)

8. Technical Architecture

Layer	Technology	Details
Framework	Next.js	React-based with SSR and API routes
Hosting	Vercel	Serverless deployment with CI/CD from Git
Authentication	Email-based	User auth currently in place
Database	TBD	Persistent storage for projects, patterns, yarns, users
Styling	Dark theme	CSS with accent colors; consistent design language
State Mgmt	React state / Context	Client-side state for counters and forms

The application follows standard Next.js page-based routing. The URL structure reflects the information architecture: /notebook/projects, /notebook/stash, /notebook/queue, /notebook/favorites, and /patterns as top-level routes. Project detail pages use dynamic routing with UUID-based identifiers.

9. Future Roadmap

The following features represent potential enhancements organized by priority:

Phase 1: Core Enhancements

- Photo uploads for projects (progress photos, finished item gallery)
- Multiple row/stitch counters per project (for complex pattern sections)
- Pattern PDF attachment and inline viewing
- Yarn usage tracking (yards used per project, remaining in stash)

Phase 2: Social & Community

- Public user profiles with finished project portfolios
- Pattern sharing and community-contributed patterns
- Comments and ratings on patterns
- Social feed showing friends' project updates

Phase 3: Advanced Features

- Yarn substitution suggestions based on weight and fiber content
- Project time tracking and estimated completion dates
- Import/export for Ravelry data migration
- Mobile native apps (iOS and Android)
- Offline mode with sync for row counting without connectivity

10. Success Metrics & KPIs

Metric	Target	Measurement Method
Projects per User	≥ 3 average	Database query on user activity
Row Counter Usage	70% weekly on active projects	Event tracking
Stash Entries per User	≥ 5 average	Database aggregation
Session Duration	≥ 4 min average	Analytics time-on-site
30-day Retention	≥ 40%	Cohort analysis
Pattern Library Growth	100+ in first 3 months	Database count

11. Risks & Mitigations

Risk	Impact	Likelihood	Mitigation
Ravelry network effects	High	Medium	Differentiate with modern UX, row counter focus, dark-mode-first; offer data import
Low initial content	Medium	High	Seed pattern library with free patterns; encourage early contributors
Data loss / reliability	High	Low	Implement DB backups; consider user export/backup feature
Mobile usability gaps	Medium	Medium	Prioritize responsive design; row counter must work on phone screens
Scaling costs	Medium	Low	Vercel serverless scales cost-efficiently; monitor usage tiers

12. Appendix

A. Glossary of Craft Terms

Term	Definition
Frogged	A project completely unraveled (ripped out). From "rip it, rip it" → "ribbit."
Hibernating	A project paused indefinitely but not abandoned.
Gauge	Stitches and rows per unit of measurement, used to ensure correct sizing.
Skein	A unit of yarn, typically wound in an oblong shape.
Stash	A crafter's personal collection of yarn not yet assigned to a project.
WIP	Work in Progress — an active, unfinished project.
Row Counter	A tool for tracking which row of a pattern the crafter is currently on.

B. Project Status Lifecycle

Projects in Unravel follow a lifecycle with four possible states: In Progress (actively being worked on), Finished (completed), Hibernating (paused but not abandoned), and Frogged (unraveled/abandoned). Users can transition between any state at any time via the project edit form.

C. Live Application URL

https://my-nextjs-app-khaki-six.vercel.app/