


Stacks

A modern discovery platform for library resources beyond books

Hannah Holden




What Is Stacks?

Stacks is a **web-based discovery platform** that helps users find, explore, and save *non-book library resources*, such as:

- Sewing machines
- 3D printers
- Musical instruments
- Cameras & tech kits
- Tools, games, and event kits

Instead of browsing outdated library catalogs, users explore resources through a **visual, curated interface**

Who is it for?

- Library patrons interested in hobbies, creativity, and hands-on projects
- Students, makers, creatives, and community members
- Libraries looking to increase visibility and usage of their resources

User's Point of View

01 **Open Stacks and allow location access**

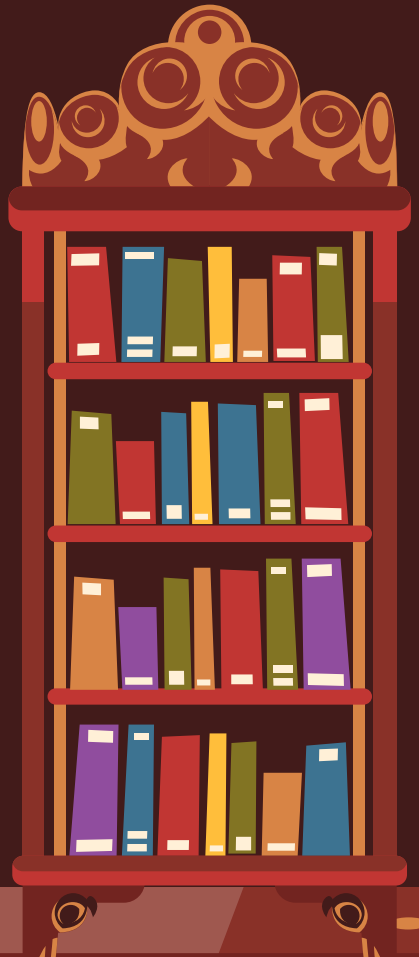
02 **Browse categories like *Crafting, Tech, Cooking, Music***

03 **Explore curated Stacks**
(collections of items for a goal or project)

04 **View item availability and borrowing rules**

05 **Click 'Reserve at Library' to complete checkout on the official library site**

06 **Save items or Stacks for later**



Example:

“DIY Prom Dress Stack”

- Sewing machine
- Dress form
- Iron & fabric scissors

  → All available from nearby libraries

Why am I interested in building Stacks?

- I care deeply about **libraries, access, and creative resources**
- I've personally experienced how difficult it is to find non-book library items
- This project combines:
  - Technical problem-solving
  - Real-world social impact
  - Strong UI/UX design challenges

Why it's a good senior project

- Non-trivial data modeling problem
- Requires system design, frontend, backend, and data ingestion
- Solves a real problem that affects millions of people

Frontend

- **React / Next.js**
- Responsive, mobile-first UI
- Card-based browsing and curated collections

Backend

- **Supabase (Postgres)** or Firebase
- User accounts, saved Stacks, wishlist data

Data Sources

- Manual ingestion from 3–5 libraries
- Public library websites
- IMLS Public Libraries Survey for location data

Data Normalization

- AI-assisted classification (OpenAI / Gemini)
- Normalize inconsistent item names into shared categories

Design

- **Figma** for wireframes and UI planning

What Makes Stacks Unique

Why not existing solutions?

- Library catalogs → text-heavy, fragmented, and hard to browse
- Pinterest → inspiration only, not tied to real borrowable items
- Libby → focused on digital books and audiobooks

What Stacks does differently:

- Focuses on **physical, non-book resources**
- Aggregates across libraries
- Introduces **Stacks** as a new way to plan projects and experiences
- Emphasizes discovery, not inventory management

MVP Scope (One Semester)

- 3–5 libraries in one city
- 50–100 cataloged items
- Core features:
  - Browse items
  - Create and save Stacks
  - Deep-link reservations
  - User profiles

Why this is feasible:

- No checkout or payment logic
- Manual + semi-automated data ingestion
- Clear technical boundaries

Thank You!