

We have an existing application. This DocHub will be a subset feature within the application. The entry point for this DocHub would be accessible via our nav menu. Generate MVPs and a detailed design on how these features will fit together under one platform. Then generate use cases and software features for this DocHub.

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## I. Concrete & Necessary Use Cases and Features

### 1. Organized Document Library

Use Case: View, search, and filter all health-related documents for each child.

Features:

- Patient/child selector and context switcher (handles multi-child families)
- Categorized folders/tabs (e.g., Lab Results, Imaging, Care Plans, Discharge Summaries)
- Sort and filter by type, date, provider, tags
- Document preview (inline PDF, image, text)

### 2. Smart Search & Retrieval

Use Case: Instantly find documents using keywords, tags, or clinical context (e.g., "Show all autism-related testing results from last year").

Features:

- Hybrid search (metadata + semantic/vector/LMM embedding search)
- Faceted filtering (by date, provider, visit reason, care team member)
- Recently viewed/most relevant suggestions

### 3. Personalized Summarization

Use Case: Summarize information relevant to a parent's/guardian's needs.

Features:

- "Summarize Recent Doctor Visits"—LLM synthesis across visit notes
- "What's New in My Child's Care Plan?"—detects and highlights changes
- "Explain This Lab Result"—plain-language lab explanations with clinical context

### 4. Document Upload & Capture

Use Case: Parents/caregivers and providers can add new documents (e.g., doctor notes, IEPs, consent forms).

Features:

- Direct upload (mobile/photo, desktop file picker, scanned docs)
- Auto-tagger (LLM proposes suggested categories and tags)

- Metadata entry (date, provider, type, notes)
- Multi-format support (PDF, images, DOCX, FHIR bundles)

## 5. Consent-Aware Access & Sharing

Use Case: Guarantee that only authorized users/access proxies can view or interact with sensitive documents (especially for underage patients).

Features:

- Dynamic RBAC with parent/guardian/caregiver proxy logic
- Consent tracking—see who can access what and why
- "Share with my child's primary doctor/teacher" (secure, time-limited link with audited delivery/receipt)

## 6. Audit Trail & Download History

Use Case: Legal and privacy transparency for users, parents, organizations.

Features:

- Viewable user activity log (who accessed/shared/downloaded)
- Download as PDF/CSV
- Alert for unusual activity or access from new devices

## 7. Document Lifecycle & Versioning

Use Case: Keep a record of changes—important for legal, insurance, and longitudinal care contexts.

Features:

- Version history per document
- Change history with comparison view
- Archiving and controlled deletion options

## 8. Notifications & Tasks

Use Case: Alert caregivers about new or changed documents, expiring consents, or missing uploads needed.

Features:

- In-app notification center and email/SMS push
  - "Action required" tasks (e.g., signature needed, fill out intake form)
  - Configurable notification preferences
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## II. Innovative & Exciting Use Cases and Features

### 1. Intelligent Document Insights

Use Case: LLM-driven insights and recommendations drawn from aggregate document content.

Features:

- "Care Timeline": An automatically assembled, visual and narrative timeline of the child's healthcare activity (visits, tests, medication changes)
- "Spot Trends": Identify patterns (e.g., increasing frequency of visits, recurring lab anomalies)
- "Suggested Questions for Next Appointment": LLM-generated prompts based on recent developments in the record

### 2. Conversational Document Assistant

Use Case: Caregivers ask questions in natural language and get reasoned, document-grounded answers.

Features:

- Chatbot/native chat UI on the DocHub screen
- RAG pipeline utilizes only accessible (by RBAC) documents for responses
- Use-case examples: "What reports do I need to bring to the school next week?"  
"Has dosing changed this year?"

### 3. Caregiver-Child Collaboration

Use Case: Enable older children/teens or multiple caregivers to participate in managing and annotating care documents.

Features:

- Collaborative notes/annotations on documents (with role-sensitive privacy)
- Controlled delegation—child can approve "read" or "comment" access for certain records
- Shared checklists (e.g., what to bring to appointments)

### 4. Document Data Extraction & Auto-Fill

Use Case: Pre-fill insurance, school, or government forms using historic data from uploaded documents.

Features:

- Smart extraction of demographic and clinical info
- Auto-complete routine forms for caregiving needs
- "Copy to clipboard" for summaries

## 5. Appointment and Record Prep Packs

Use Case: Bundle and export key documents and summaries in advance of specific events (e.g., specialist visit, school IEP meeting).

Features:

- One-click "Prepare for Neurology Appointment" or "School Packet"
- LLM-summarized cover sheet auto-generated
- Option for encrypted, time-limited external sharing

## 6. Accessibility & Language Innovations

Use Case: Make DocHub usable for all, regardless of language or cognitive ability.

Features:

- Real-time translation of document content and summaries
- Text-to-speech narration of key content, including for the visually impaired
- Easy-read/"plain language" toggle

## 7. Caregiver Mood/Impact Tracker (contextual)

Use Case: Understand caregiver burden in context of document/care journey.

Features:

- Lightweight mood check-ins or prompts tied to major updates or stressful events
  - Optional, can be shared with care teams at parent discretion
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## III. Technical/Integration Features

- Seamless integration: DocHub "tab" inherits session/context from parent application (no double login), respects existing RBAC.
  - API & Webhook Support: For future integration with external labs, clinics, or educational organizations.
  - Mobile Responsiveness: Fully functional across devices and touch interfaces.
  - WCAG Accessibility: Color contrast, font size, keyboard navigation, ARIA tags, and companion "help" features.
  - Disaster Recovery: Data redundancy and quick restore for lost documents.
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## IV. Menu Structure/Entry Points Example

Nav Entry:

"Documents" or "DocHub" main tab, with indicator for unread or action-needed items.

Dropdown or sub-nav:

My Child's Library  
Upload New Document  
Notifications  
Care Timeline  
Share Records  
Help & Resources

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## V. Summary: What Sets This DocHub Apart

Grounded, plain-language explanations powered by LLMs.

Role-sensitive insights (parents, older children, school nurses, specialists—all see different views).

Proactive, personalized guidance for complex and evolving care journeys.

Audit-first, consent-bound, and designed to empower—not overwhelm—families.

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## Software Features (grouped by MVP priority)

### I. Document Management

- Upload, preview, download documents
- Multi-format support (PDF, image, office docs)
- Patient/child assignment at upload
- Tagging: manual + ML-suggested (“vaccine”, “plan of care”, etc.)
- Batch actions for advanced users (later)

### II. Search & Retrieval

- Keyword/natural language search of all uploaded docs
- Filters: by child, document type, date
- Results sorted by recency and relevance

### III. Access Control, Consent, & Auditing

- RBAC: only permitted users/roles see the right docs (parent, caregiver, proxy)
- Consent engine: respects restrictions for minors/special docs
- Audit logs: view/download who accessed what/when, by whom (UI for key logs, deeper export in admin backend)

### IV. Notifications & Onboarding

- In-app banner/alert for newly added docs relevant to user
- Onboarding wizard/tips overlay for first-time visitors

## V. Integration/Extensibility (optional, for roadmap)

- API hooks for integration with EHR/Lab portals
  - Extensible metadata and tagging schemas
  - Expansion for annotations, document notes, e-signatures
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## 5. Summary Table

Area	User-Facing	Admin/Security/Compliance	Technical/Backend
Entry/Access	DocHub in nav/menu		Session, user context
Main UI	Recent docs, upload	Audit log/report UI	API-first endpoints
Search	Smart, filtered	Download logs	Vector/keyword combo search
Upload	File picker/tagging		LLM auto-tagging
View/Preview	Inline/PDF/image	Who-accessed panel	
RBAC/Consent	Only docs I can see	Override/exception for admin	Linked to auth/user org tree
Audit	(per doc) view list	Export, deep drilldown	SIEM export/integration
Notify	Banner/new doc alert	Bulk/batch notify (future)	Webhook/event on doc ingest
Help/Onboard	Tips overlay		

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Vercel V0 prompt:

**TASK:**

Design a DocHub UI as a feature for a healthcare app supporting parents and caregivers of neurodiverse children.

**CONTEXT:**

Entry from main nav; users may have multiple children. Strong RBAC: users see only permitted children's documents.

**REQUIREMENTS:**

Dashboard: Recent docs list, grouped by child, with "Upload" button

Upload: Select file, assign child, pick doc type (AI-suggested tags)

Search: Smart search bar with filters (child, type, date), natural query support

Viewer: Preview PDFs/images, download with permission

Audit: For admin/parents, show access history per document

Notifications: Banner for new docs

Onboarding: Tips/walkthrough for new users  
CONSTRAINTS: Accessible (WCAG 2.1), responsive, fits modern healthcare UI style. Output as modular React components for Vercel V0.