# **Project Document: 10000Ideas.com**

A curated platform to showcase, browse, and contribute innovative ideas in a **Masonry grid UI.** The goal is to **quickly scale** the MVP with clean backend and frontend separation and seamless user experience.

## **🔍 Project Overview**

* **Purpose:** A discovery platform that presents 10,000+ innovative ideas across industries.
* **Key Feature:** Each idea is displayed in a **card format** in a **Masonry grid layout.**
* **Target Users:** Entrepreneurs, innovators, product designers, students, researchers.

## **1. Core Features**

### **User-Facing Features**

1. **Masonry Grid of Idea Cards**
   * Image
   * Idea title
   * Brief description
   * Category tag
   * Read more button / link
2. **Idea Detail Page / Modal**
   * Full description
   * Date posted
   * Tags
   * Related ideas (optional)
3. **Search and Filter**
   * Category-based filtering
   * Free text search on titles and tags
4. **Add New Idea (optional in MVP)**
   * Form with:  
     + Title
     + Description
     + Category selection
     + Image upload
5. **Responsive Design**
   * Mobile, tablet, and desktop friendly

### **2. Admin Features (Optional Phase-2)**

* Login authentication
* CRUD operations (Add, Edit, Delete ideas)
* View submissions (if public idea submission is allowed)

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## **3. Database Schema (Detailed)**

### **Tables:**

#### **1. Ideas**

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| id | UUID | Primary key |
| title | String | Idea title |
| description | Text | Full idea content |
| imageUrl | String | Image link |
| categoryId | UUID | Foreign key |
| createdAt | Timestamp | Date added |
| tags | Array | Searchable tags |

#### **2. Categories**

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| id | UUID | Primary key |
| name | String | Category name |

#### **3. (Optional) Users**

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| id | UUID | Primary key |
| username | String | For login/admin |
| passwordHash | String | Encrypted password |

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## **4. Frontend (React App) Detailed Flow**

### **Pages/Components:**

* HomePage: Masonry grid with idea cards
* IdeaCard: Displays idea snippet
* IdeaDetail: Full idea view (modal or new page)
* AddIdeaForm: Optional, for new submissions
* SearchBar: Search ideas
* CategoryFilter: Filter ideas by category

## **5. Backend API Design (Node.js or Supabase or Python/Django or Springboot)**

| **Method** | **Endpoint** | **Description** |
| --- | --- | --- |
| GET | /api/ideas | Fetch all ideas |
| GET | /api/ideas/:id | Fetch single idea |
| GET | /api/categories | Fetch all categories |
| POST | /api/ideas | Add new idea (if allowed) |
| PUT | /api/ideas/:id | Update idea (admin only) |
| DELETE | /api/ideas/:id | Delete idea (admin only) |

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## **6. Suggested Tech Stack**

### **Frontend:**

* React.js
* Tailwind CSS (fast styling)
* react-masonry-css (Masonry grid)

### **Backend:**

* Node.js + Express.js **OR** Supabase (auto-generated backend)
* PostgreSQL (preferred) / Supabase storage for images

### **Deployment:**

* Vercel (frontend)
* Supabase (backend + database) or DigitalOcean (Node.js backend)

### **Optional:**

* GitHub Copilot / Codeium / Mutable AI for code generation
* ToolJet for low-code admin panel
* Cloudinary or Supabase for image hosting

## **7. Roadmap & Milestones**

| **Phase** | **Deliverables** | **Timeline** |
| --- | --- | --- |
| Phase 1 | Set up frontend + Masonry layout + basic API | Day 1-3 |
| Phase 2 | API integration + filtering + search | Day 4-6 |
| Phase 3 | Detail page/modal + Add idea (optional) | Day 7-9 |
| Phase 4 | Deployment + polishing + testing | Day 10 |

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## **8. Optional Add-ons for Scaling**

* Infinite scroll or pagination
* Authentication (for admins)
* Like/save feature for users
* Tags cloud
* SEO optimization