# FileInASnap MiniMax - AI-Powered File Management

[Deploy Status](https://823repj5ezsa.space.minimax.io) [AI Powered](https://openrouter.ai/) [MCP Server](./mcp-server/)

A modern, AI-enhanced file management application inspired by SparkleShare, featuring intelligent document analysis, smart categorization, and automated organization powered by OpenRouter’s free AI models.

## 🚀 Live Demo

**🌐** [**Try FileInASnap MiniMax**](https://823repj5ezsa.space.minimax.io)

## ✨ Features

### Core File Management

* **Smart Folders** - Intelligent file organization with AI-powered suggestions
* **Real-time Sync** - Instant file updates and synchronization
* **Multi-language Support** - Available in 6 languages (EN, ES, FR, DE, ZH, JA)
* **SparkleShare-inspired UI** - Clean, modern interface with intuitive navigation

### AI-Powered Capabilities

* **📄 Document Analysis** - Extract entities, categorize content, and identify document types
* **🏷️ Smart Tagging** - Automated tag generation based on content analysis
* **📊 File Categorization** - Intelligent classification using content-aware AI models
* **🖼️ Image Analysis** - Computer vision with object detection and OCR capabilities
* **🔍 Duplicate Detection** - Advanced similarity detection beyond simple checksums
* **📝 Content Summarization** - AI-generated summaries for any file type
* **🗂️ Organization Suggestions** - AI-recommended folder structures and workflows
* **⚡ Real-time Monitoring** - Live status of all AI system capabilities

## 🏗️ Architecture

### Frontend (React + Vite + TypeScript)

* **Framework**: React 18 with TypeScript
* **Build Tool**: Vite for fast development and optimized builds
* **Styling**: TailwindCSS with custom SparkleShare-inspired theme
* **UI Components**: Custom component library with accessibility features
* **Internationalization**: Multi-language support with dynamic switching

### Backend (Supabase + Edge Functions)

* **Database**: PostgreSQL with real-time subscriptions
* **Authentication**: Supabase Auth with social providers
* **Storage**: Secure file storage with access controls
* **API**: Serverless Edge Functions for AI integration

### AI Integration (MCP Server)

* **Primary Provider**: OpenRouter free tier models
* **Fallback Ready**: MiniMax integration scaffolded for future activation
* **Models**: Mistral-7B, Llama-3.1-8B, Qwen2-7B for text processing
* **Architecture**: Universal provider abstraction for easy switching

## 🚀 Quick Start

### Prerequisites

* Node.js 18+
* npm or pnpm
* Supabase account
* OpenRouter API key (free tier available)

### Installation

1. **Clone the repository**

* git clone https://github.com/Greenmamba29/fileinasnap\_minimax.git  
  cd fileinasnap\_minimax

1. **Install dependencies**

* npm install  
  # or  
  pnpm install

1. **Environment Setup** Copy .env.example to .env.local and configure:

* VITE\_SUPABASE\_URL=your\_supabase\_url  
  VITE\_SUPABASE\_ANON\_KEY=your\_supabase\_anon\_key  
  OPENROUTER\_API\_KEY=your\_openrouter\_api\_key

1. **Start Development Server**

* npm run dev  
  # or  
  pnpm dev

1. **Build for Production**

* npm run build  
  # or   
  pnpm build

## 🤖 MCP Server Setup

The AI capabilities are powered by a custom MCP (Model Context Protocol) server located in the ./mcp-server/ directory.

### Local MCP Server Development

1. **Navigate to MCP server directory**

* cd mcp-server

1. **Install Python dependencies**

* pip install -r requirements.txt

1. **Configure environment**

* export OPENROUTER\_API\_KEY="your\_openrouter\_api\_key"

1. **Run MCP server**

* python server.py

### Available AI Tools

* analyze\_document - Document analysis with entity extraction
* categorize\_files - Batch file classification
* generate\_file\_tags - Intelligent tagging system
* analyze\_image - Computer vision analysis
* detect\_file\_duplicates - Advanced duplicate detection
* generate\_file\_summary - Content summarization
* suggest\_folder\_structure - Organization suggestions
* get\_provider\_status - System health monitoring

## 🎨 UI/UX Design

### SparkleShare Inspiration

* **Color Palette**: Clean whites, soft grays, and accent blues
* **Typography**: Modern, readable fonts with proper hierarchy
* **Icons**: Custom icon set resembling SparkleShare’s folder metaphors
* **Layout**: Grid-based design with intuitive navigation patterns

### AI Integration Indicators

* **Sparkle Icons** - Subtle indicators for AI-powered features
* **Loading States** - Progress indicators for AI operations
* **Result Displays** - Clean presentation of AI insights and suggestions

## 🔧 Development

### Project Structure

fileinasnap\_minimax/  
├── src/ # Frontend source code  
│ ├── components/ # React components  
│ ├── pages/ # Page components  
│ ├── hooks/ # Custom React hooks  
│ ├── utils/ # Utility functions  
│ └── styles/ # CSS and styling  
├── public/ # Static assets  
├── supabase/ # Supabase configuration  
│ ├── functions/ # Edge Functions  
│ └── migrations/ # Database migrations  
├── mcp-server/ # AI MCP Server  
│ ├── src/ # Python source code  
│ ├── examples/ # Usage examples  
│ └── tests/ # Test suite  
└── locales/ # Internationalization files

### Key Technologies

* **Frontend**: React, TypeScript, Vite, TailwindCSS
* **Backend**: Supabase, PostgreSQL, Edge Functions
* **AI**: OpenRouter APIs, MCP Protocol
* **Deployment**: Vercel/Netlify (Frontend), Supabase (Backend)

## 🌐 Deployment

The application is deployed using modern cloud platforms: - **Frontend**: Automatically deployed from main branch - **Backend**: Supabase Edge Functions for serverless scaling - **AI Services**: OpenRouter free tier with MiniMax upgrade path

## 🤝 Contributing

We welcome contributions! Please see our contributing guidelines:

1. Fork the repository
2. Create a feature branch (git checkout -b feature/amazing-feature)
3. Commit your changes (git commit -m 'Add amazing feature')
4. Push to the branch (git push origin feature/amazing-feature)
5. Open a Pull Request

## 📝 License

This project is licensed under the MIT License - see the <LICENSE> file for details.

## 🙏 Acknowledgments

* **SparkleShare** - UI/UX design inspiration
* **OpenRouter** - Free AI model access
* **MiniMax** - Future AI capabilities integration
* **Supabase** - Backend infrastructure
* **React Team** - Amazing frontend framework

## 📞 Support

* **Issues**: [GitHub Issues](https://github.com/Greenmamba29/fileinasnap_minimax/issues)
* **Discussions**: [GitHub Discussions](https://github.com/Greenmamba29/fileinasnap_minimax/discussions)
* **Email**: support@fileinasnap.com

**Built with ❤️ by the FileInASnap team** | [Website](https://823repj5ezsa.space.minimax.io) | [Documentation](./docs/) | [API](./mcp-server/)