

# BeyondChats Article Automation Project

This project automates the process of **scraping blog articles**, **enhancing them using AI**, and **displaying both original and updated versions** in a modern frontend UI.

It is implemented in **three phases** using **Laravel**, **Node.js**, and **React.js**.

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## ◆ Project Overview

### Phase 1 – Backend (Laravel)

- Scrape the **5 oldest articles** from the BeyondChats blog.
- Store articles in a MySQL database.
- Expose **CRUD APIs** for article management.

### Phase 2 – Automation (Node.js)

- Fetch the **latest article** from Laravel APIs.
- Search the article title on the web.
- Scrape **two top-ranking reference articles**.
- Rewrite the article using an LLM.
- Publish the updated article back to Laravel.
- Store references at the bottom of the article.

### Phase 3 – Frontend (React.js)

- Display original and updated articles.
- Responsive and professional UI.

- Data fetched from Laravel APIs.

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## Tech Stack

Layer	Technology
Backend	Laravel 10, MySQL
Automation	Node.js
Scraping	Playwright (browser-based)
AI	OpenAI API (HTTP-based)
Frontend	React.js (Vite)
Styling	CSS / Flexbox / Grid

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## Local Setup Instructions

### Backend Setup (Laravel)

#### Prerequisites

- PHP 8.1+
- Composer
- MySQL
- XAMPP / Laravel Valet

#### Steps

```
git clone https://github.com/your-username/beyondchats-api.git
cd beyondchats-api
composer install
cp .env.example .env
php artisan key:generate
```

### Configure `.env`

```
DB_DATABASE=beyondchats  
DB_USERNAME=root  
DB_PASSWORD=
```

### Run migrations

```
php artisan migrate
```

### Scrape BeyondChats Articles

```
php artisan scrape:beyondchats
```

### Start server

```
php artisan serve
```

Backend runs at:

```
http://localhost:8000
```

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## 2 Automation Setup (Node.js)

### Prerequisites

- Node.js v18+

### Steps

```
cd article-automation  
npm install
```

### Update API URLs and OpenAI Key

Edit `rewriteArticle.js` and add your OpenAI API key.

### Run Automation Script

```
node index.js
```

- ✓ Fetches latest article
  - ✓ Searches reference articles
  - ✓ Scrapes content
  - ✓ Rewrites article
  - ✓ Updates database
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### 3 Frontend Setup (React)

#### Steps

```
cd beyondchats-frontend  
npm install  
npm run dev
```

Frontend runs at:

```
http://localhost:5173
```



## Data Flow / Architecture Diagram

