Forestry & Wildlife Tech News Aggregation System

Setup Commands, and Project Description:

## **Project Description:**

**Title:** Forestry and Wildlife Tech News Aggregation & Moderation Portal

**Objective:** Build an automated system that:

* Collects forestry, wildlife, and forest-tech news from Indian and global sources.
* Filters articles by forestry-related keywords.
* Stores them in a SQLite database.
* Lets moderators approve/reject articles through a custom Flask dashboard.
* Sends email notifications on article approval.
* (Placeholder) Summarizes articles for publishing.
* (Future scope) Allows portal integration via an API.

## **Tools, Libraries, and Dependencies Used:**

| **Component** | **Purpose** |
| --- | --- |
| Python | Core programming language |
| SQLite3 | Lightweight database |
| Flask | Web dashboard for moderation |
| Feedparser | RSS feed parsing |
| Requests | Web scraping HTTP requests |
| BeautifulSoup | HTML parsing and scraping |
| python-dotenv | Securely load config values from .env file |
| smtplib | Sending email notifications |
| EmailMessage | Email formatting |
| schedule | Daily automation scheduling (future scope) |
| SQLite Browser (GUI) | View and edit DB easily |

## **Project Folder Structure (as of now)**

Forestry\_News\_Project/

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├── venv/ # Virtual environment

├── .env # API keys, Email, Portal config

├── database.db # SQLite database file

├── news\_collector.py # Article scraping & database writer

├── moderation\_dashboard.py # Flask dashboard for moderation

└── (optional) DB Browser # External tool for viewing database manually

## **Activate Virtual Environment**

**PowerShell:**

| .\venv\Scripts\activate |
| --- |

### **Install Required Libraries**

| pip install flask feedparser requests beautifulsoup4 python-dotenv schedule |
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### **Create Database**

Automatically created when running news\_collector.py for the first time.

### **Run News Collector Script**

(Scrapes articles and inserts into SQLite DB)

| python news\_collector.py |
| --- |

**Make sure no other process is holding database.db**

### **View Database via SQLite Browser GUI**

* Install [DB Browser for SQLite](https://sqlitebrowser.org)
* Open database.db
* Check articles table contents

### **Run Moderation Dashboard (Flask)**

| python moderation\_dashboard.py |
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Open in browser:

| http://127.0.0.1:5000 |
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### **Important Terminal Commands Summary**

| **Purpose** | **Command** |
| --- | --- |
| Activate virtual env | .\venv\Scripts\activate |
| Install dependencies | pip install flask feedparser requests beautifulsoup4 python-dotenv schedule |
| Run news collector script | python news\_collector.py |
| Run Flask dashboard | python moderation\_dashboard.py |
| Stop Flask / any terminal process | Ctrl + C |
| Set PowerShell policy (if needed) | Set-ExecutionPolicy RemoteSigned |