

Community Based News platform

Tagline: An information Centralising system for a local community

Team: Solo

1. Elkanah Kindness
2. Obviously it's a one man team,
3. Only a single person on the team, yet because it is a small project

Technologies:

Languages: Python, HTML, CSS, JavaScript

Frameworks: Flask (for the backend)

Libraries: Requests (for API calls), Jinja2 (template engine)

Platforms: Ubuntu (development and production environment)

Books/Resources: Flask documentation, HTML/CSS tutorials, JavaScript guides

Flask vs. Django:

- **Flask** is a micro-framework that provides the essentials for building web applications, allowing for more flexibility and simplicity. It's lightweight and suitable for smaller projects or when custom implementations are needed.
- **Django** is a full-featured web framework that comes with built-in features like an ORM, admin interface, and authentication. While it's more feature-rich and can speed up development for larger projects, it may be overkill for a simple read-only news platform.
- **Decision:** Flask was chosen for its simplicity and flexibility, which aligns well with the project's scope and requirements. Django's extensive features were not needed for this project, and Flask allows for a more lightweight implementation.

Requests vs. HTTPX:

- **Requests** is a popular HTTP library for Python, known for its simplicity and ease of use.
- **HTTPX** is a more modern HTTP library that supports async requests and offers additional features like connection pooling.
- **Decision:** Requests was chosen for its simplicity and sufficiency for the project's needs. HTTPX would be more suitable for applications requiring asynchronous operations or advanced HTTP features.

Challenge Statement:

Problem addressed:

The project aims to provide a (read-only yet) localized news platform where users can access current news articles, within a defined community e.g. School. This is based on the fact that decentralised information pools tend to truncate the integrity of information therefore a centralised platform.

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What It Will Not Solve:

- It will not include features for user-generated content, discussions, or community engagement (yet, but will be designed to scale into that when and if necessary),
- It does not provide real-time news updates or advanced filtering based on user preferences.

Target Users:

- Individuals of a defined community

Locale Relevance:

- The project can be localized to any region by configuring the API to fetch news specific to that area. The platform's relevance is dependent on accurate and localized news data.

Locale Relevance:

This project is very dependent on the defined community

Technical Risks:

- **Risk:** Compatibility issues with different versions of libraries or Python.
 - **Safeguards:** Use virtual environments to manage dependencies and ensure compatibility. Regularly test the application with updates.

Non-Technical Risks:

- **Risk:** Information Censorship
 - **Strategies:** Just like twitter(x) uses community notes, using such would control censorship
- **Risk:** Deployment challenges or server downtime.
 - **Strategies:** Use robust deployment platforms and monitor the application for performance issues. Implement automated backups and have a rollback plan.

Infrastructure

Branching and Merging:

- **Strategy:** Follow GitHub Flow or a similar branching strategy. Use branches for new features or fixes and merge into the main branch after review and testing.

Deployment Strategy:

- **Process:** Deploy using a platform like Heroku or a cloud service provider. Set up continuous integration/continuous deployment (CI/CD) pipelines for automated deployment.

Data Population:

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- **Source:** Since a Centralised Source is required Manual data entry used, though with an automated process..

Testing Tools:

- **Tools:** Use automated testing frameworks like pytest for Python, and tools like Selenium for end-to-end testing.
- **Process:** Write unit tests for backend logic and integration tests for the overall functionality.

Existing Solutions

Similar Products:

- **Google News:** A comprehensive news aggregation platform with various features including community engagement.
- **BBC News:** Offers localized news but with a broad scope including interactive features and community engagement.

Similarities and Differences:

- **Similarities:** All provide access to news content.
- **Differences:** This project focuses solely on a read-only, localized news platform without interactive features, whereas existing solutions offer more extensive features including user interaction and global coverage.

Reimplementation Justification:

- **Decision:** Reimplementing this solution allows for a tailored, lightweight platform focused on local news without the overhead of interactive features. This approach ensures simplicity and aligns with specific project goals.