"Social Media ETL Analytics" project:

vbnet

# Social Media ETL Analytics

The Social Media ETL Analytics project is an ETL (Extract, Transform, Load) pipeline designed to extract data from various social media platforms, transform it into a structured format, and perform analytics to gain valuable insights.

## Description

This project aims to extract social media data from platforms such as Twitter, Facebook, and Instagram using their respective APIs. The extracted data is then transformed and cleaned to ensure consistency and quality. It is loaded into a database for efficient storage and analysis. Various analytics techniques like sentiment analysis, geolocation, and topic modeling are applied to generate meaningful patterns and trends.

## Key Features

- Extraction of social media data from Twitter, Facebook, and Instagram APIs.

- Data cleaning, transformation, and standardization for consistency and quality.

- Loading transformed data into a database (MySQL, PostgreSQL) for efficient storage.

- Applying analytics techniques for generating insights and trends.

- Visualizing results through reports and interactive dashboards.

## Installation

1. Clone the repository:

git clone https://github.com/your-username/social-media-etl-analytics.git

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2. Install the required dependencies:

pip install -r requirements.txt

3. Set up the database:

- Create a new database.

- Update the database connection details in `config.py`.

4. Obtain API credentials:

- Follow the documentation provided by the respective social media platforms to obtain API keys.

- Update the API credentials in `config.py`.

5. Run the ETL pipeline:

python etl\_pipeline.py

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## Usage

1. Extract Data:

- Customize the extraction process by specifying search parameters, hashtags, user handles, or other criteria in the appropriate API functions.

2. Transform Data:

- Implement additional data cleaning or enrichment steps based on your requirements.

3. Analytics and Insights:

- Explore the transformed data to generate insights using the provided analysis scripts or create your own.

4. Visualization:

- Utilize the visualization libraries and templates provided to create interactive visualizations and reports.

## Contributing

Contributions are welcome! If you have suggestions, bug reports, or new features to propose, please open an issue or submit a pull request. Ensure that your contributions adhere to the project's coding standards and follow best practices.

## License

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