**SEC 10-K Filings Analysis Website**

This project is a Flask-based web application that allows users to search for SEC 10-K filings of companies by providing their ticker symbols. The application retrieves the 10-K filings from the SEC Edgar database, extracts relevant information such as revenue data, generates insights using natural language processing (NLP) techniques, and visualizes the revenue growth over time.

**Tech Stack**

- **Flask**: Flask is a lightweight web application framework for Python. It was chosen for its simplicity, flexibility, and ease of integration with other libraries.

- **SEC Edgar Downloader**: This library is used to download SEC filings (such as 10-K reports) from the SEC Edgar database. It provides a convenient way to fetch filings based on company tickers and date ranges.

- **Transformers Library (Hugging Face)** : The Transformers library is used for natural language processing (NLP) tasks. It provides pre-trained models and tokenizers for various NLP tasks, including text generation and text classification.

- **Matplotlib**: Matplotlib is a plotting library for Python. It is used to visualize revenue growth over time based on the extracted data from 10-K filings.

**Why Chosen Components**

- **Flask**: Flask is chosen for its simplicity and flexibility. It allows us to quickly develop a web application without unnecessary overhead. Flask also integrates well with other Python libraries, making it suitable for this project.

- **SEC Edgar Downloader**: The SEC Edgar Downloader library provides a convenient way to access SEC filings programmatically. It simplifies the process of fetching 10-K filings based on company tickers and date ranges, which is essential for this project's functionality.

- **Transformers Library (Hugging Face)**: The Transformers library is chosen for its powerful NLP capabilities. It provides pre-trained models and tokenizers that can be easily integrated into the project to generate insights from 10-K filings.

- **Matplotlib**: Matplotlib is a widely used plotting library in the Python ecosystem. It is chosen for its flexibility and ease of use in creating visualizations, which are essential for presenting the revenue growth data extracted from 10-K filings.

**Why Users Care**

Users would care about the insights generated from SEC 10-K filings because it provides valuable information about a company's financial performance, growth trajectory, and strategic direction, which can help investors make informed decisions about their investments and potential risks associated with the company.

**Installation and Usage**

1. Clone the repository:

2. Install the required dependencies:

```bash

pip install -r requirements.txt

```

3. Run the Flask application:

```bash

python app.py

```

4. Open your web browser and navigate to `http://localhost:5000` to access the application.

5. Enter the company ticker symbol and the desired year to search for SEC 10-K filings.

**Credits**

This project is created by Divyansha Arora