InflatioInsight

Project 0

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# Application Overview

The InflatioInsight project aims to aggregate major inflation metrics across countries and years into a unified dataset. This application provides visualizations to analyze inflation rates, trends, and economic patterns. Alongside this, user will be able to customize and filter visualizations as per their preferences using CLI.

# Core Functional Requirements

- Data Aggregation: Collect inflation metrics from diverse sources.

- Filtering: Allow users to filter data by country, development status, and time period.

# Standard Functional Scope

- Process diverse data feeds.

- Transform data into analytical models.

- Provide users with dashboards, queries, and reports for analysis.

# Definition of Done

- Aggregated Data: Data collection from reliable sources.

- Analytics Accuracy: Validate analytics for accuracy.

- Documentation: Provide an overview for users and developers.

# Competency-wise Scoping

Database Management:

* Choose a relational database system (MySQL).
* Define tables and relationships to store country-wise inflation metrics.

CRUD Operations:

* Create functions for adding, retrieving, updating, and deleting inflation metrics.
* Ensure proper error handling and validation.

Data Aggregation:

* Implement functions to collect data from reputable economic agencies (e.g., World Bank, IMF), open data platforms, and government publications.
* Ensure data integrity and accuracy during aggregation.

CLI Interaction:

* Utilize libraries like click for building a user-friendly CLI.
* Allow users to input filters for country, development status, and time period.

Data Visualization:

* Use Python libraries like Matplotlib or Seaborn for creating visualizations.
* Implement functions to generate line charts, bar graphs, or other relevant plots based on user-selected filters.

# Non-Functional Expectations

- Performance: Ensure fast response times for data analysis.

- Use of VCS: Manage Project Codebase and facilitate collaboration.

- Scalability: Design the system to handle increasing data volumes and introduction of new metrics.

# Source Data Location

- Economic Agencies: Utilize data from reputable economic agencies (e.g., World Bank, IMF).

- Open Data Platforms: Explore datasets available on open data platforms.

- Government Publications: Source inflation metrics from official government publications.

# Review Dates

12th January: Segregation of Data in Database and ready to be used for operations.

17th January: Analytical model to provide

# FeedBack

* Add review dates
* Conceptual level explanation is good