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Academic Journal Impact Factor Analysis Framework

Team: SevenJobs

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Domain

- Our framework will perform the impact factor analysis of academic journal papers over time.

- The impact factors of academic journal papers will have different sources (provided by data plugins).

- Display the analysis results in various ways (enabled by display plugins).

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Generality vs Specificity

The **generality** of the framework lies in its ability to interface with numerous data plugins, such as sourcing information from CSV files. These data plugins pass information in String format to the framework, which in turn is compatible with various visualization plugins, offering support for time-series graphs, bar charts, and histograms.

The **specificity** of the framework is its primary focus on the analysis of content, utilizing side information provided by the plugins to support the visualization of processed results. The framework extracts the text information from the data received from data plugins, performs analysis, and subsequently provides the necessary data components for visualization based on frontend requirements or commands.

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Project Structure

```
/framework
    /core
        Framework.java
        FrameworkImpl.java
        DataPlugin.java
    /gui
        DisplayPlugin.java
/plugin
    /dataplugin
        /CSVPlugin.java
        /TXTPlugin.java
        /WebAPIPlugin.java
    /dsiplayplugin
        /TimePlugin.java
        /HistogramPlugin.java
        /BarPlugin.java
App.java
```

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Plugins Interfaces
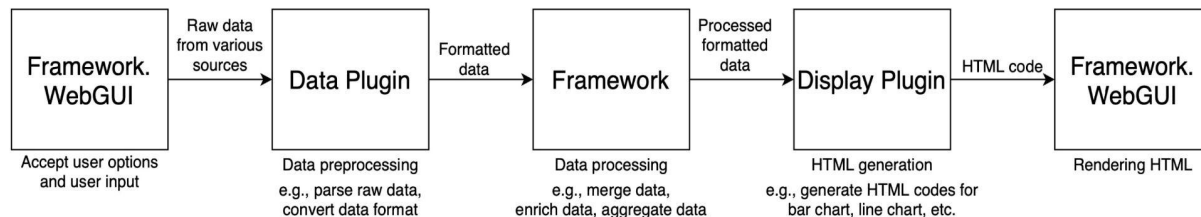
Data Plugins

- CSV plugin

- TXT plugin

- Web API

Flowchart for Impact Factor Analysis and Visualization Platform

Plugins Interfaces

Display Plugins

- Tablesaw dataframe and visualization library

○ Time-series graph

○ Histogram

○ Horizontal Bar Chart