

**Project Design Phase-II**  
**Data Flow Diagram & User Stories**

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|---------------|---|
| Date          | 23 October 2023   |
| Team ID       | Team-592275   |
| Project Name  | Gilded Emotions: Unearthing Market<br>Sentiments in Gold News |
| Maximum Marks | 4 Marks   |

**Data Flow Diagrams:**

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Gilded Emotions: Unearthing Market Sentiments in Gold News, a data flow diagram can be drawn to visualize the flow of data between the different components of the system. The following are the steps involved in drawing the data flow diagram:

Step 1: Identify the different components of the system.

The different components of the system are:

- **Data collection:** This component will collect news articles about gold from various sources, such as online news websites and social media platforms.
- **Data preprocessing:** This component will clean and prepare the data for analysis. This may involve removing stop words, stemming or lemmatizing words, and correcting spelling errors.
- **Sentiment analysis:** This component will use natural language processing and machine learning techniques to identify the sentiment of the news articles.
- **Data visualization:** This component will visualize the results of the sentiment analysis in a way that is easy to understand.

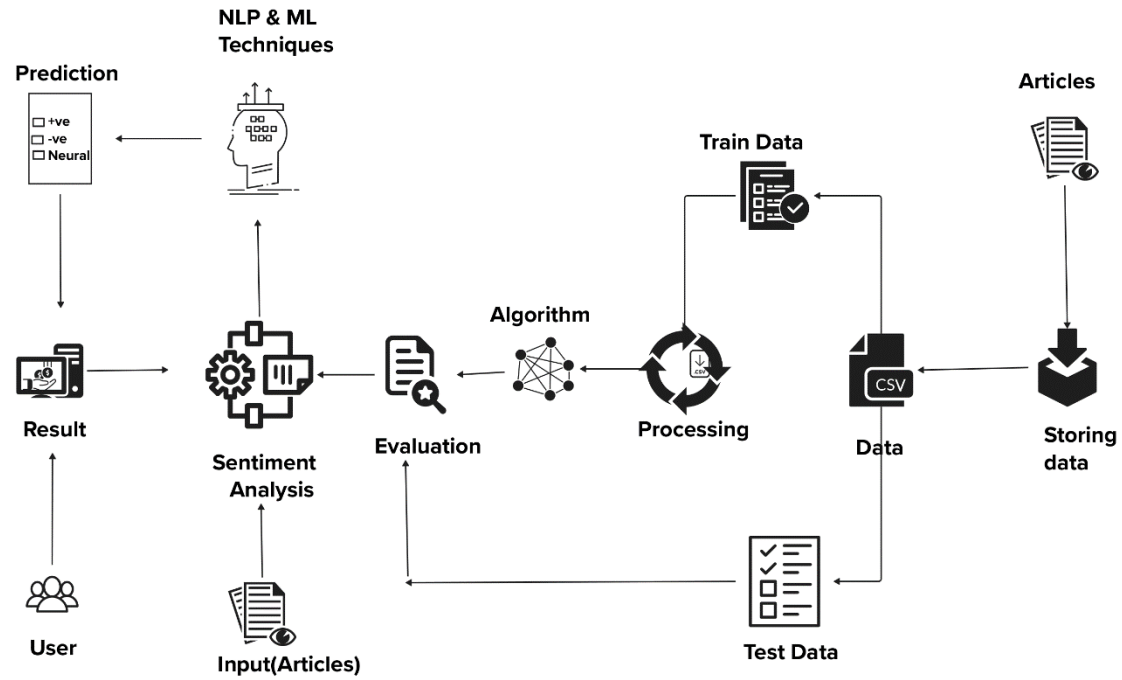
Step 2: Identify the data flows between the different components of the system.

The following are the data flows between the different components of the system:

- **Data collection to data preprocessing:** The data collected from various sources will be sent to the data preprocessing component for cleaning and preparation.
- **Data preprocessing to sentiment analysis:** The preprocessed data will be sent to the sentiment analysis component for sentiment identification.
- **Sentiment analysis to data visualization:** The results of the sentiment analysis will be sent to the data visualization component for visualization.

Step 3: Draw the data flow diagram.

### Step3::DFD(Data Flow Diagram)



## User Stories.

| User Type       | Functional Requirement (Epic) | User Story Number | User Story / Task   | Acceptance criteria  | Priority | Release    |
|-----------------|-------------------------------|-------------------|---|--|----------|------------|
| Trader/Investor | Sentiment Analysis            | USN-1             | As a trader, I want to access the sentiment analysis tool to make informed decisions about buying and selling gold. | 1. User can log in securely.<br>2. User can input keywords or news articles for sentiment analysis.<br>3. The tool provides clear sentiment results (positive, negative, or neutral).<br>4. The tool offers historical sentiment data. | High     | Sprint-1   |
|                 | Real-time Updates             | USN-2             | As an investor, I want to receive real-time sentiment updates about the gold market.                                | 1. User receives immediate notifications or access to the latest sentiment analysis results.<br>2. User can set preferences for specific gold market news sources.   | High     | Sprint-1.1 |
|                 | User-Friendly Interface       | USN-3             | As a trader, I want the sentiment analysis tool to have a user-friendly interface.                                  | 1. The tool's interface is intuitive and easy to navigate.<br>2. User can customize the dashboard to track   | Medium   | Sprint-1.2 |

|                       |                            |       |  |  |        |            |
|-----------------------|----------------------------|-------|--|--|--------|------------|
|                       |                            |       |  | sentiment changes for specific keywords or articles  |        |            |
| Financial Institution | Data Licensing             | USN-4 | As a financial institution, I want to license sentiment analysis data for gold market news.            | 1. User can access a data licensing portal.<br>2. User can select the type and volume of data to license.<br>3. The system provides pricing and terms for data licensing.<br>4. User receives access to a reliable data feed upon payment.                       | High   | Sprint-1   |
| Advertising Partner   | Ad Placement               | USN-5 | As an advertising partner, I want to place targeted advertisements within the sentiment analysis tool. | 1. User can access an advertising partnership portal.<br>2. User can define ad campaigns, targeting criteria, and budgets.<br>3. The system provides ad performance metrics.<br>4. Advertisements are displayed within the tool, reaching the intended audience. | Medium | Sprint-1.1 |
| Premium User          | Access to Premium Features | USN-6 | As a premium user, I want to access advanced features within the sentiment analysis tool.              | 1. User can upgrade to a premium subscription tier with clear pricing.<br>2. Premium features,   | Medium | Sprint-1.2 |

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|--|--|--|--|--|--|--|
|  |  |  |  | <p>such as historical sentiment data, are accessible upon subscription.</p> <p>3. The tool consistently provides premium users with enhanced capabilities.</p> |  |  |
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