FOCUS AREAS:

- Log Data Aggregation and Summarization
- Error Analysis and Identification
- Log Frequency Analysis
- Database Performance Monitoring
- User Behaviour Analysis
- Data Quality and Validation
- Time Series Analysis
- Anomaly Detection
- Trend Analysis
- Message Content Analysis

Objectives Implemented in SQL:

1. **Log Data Aggregation and Summarization**: Aggregating log data by date, log level, or message type, and calculating metrics.
2. **Error Analysis and Identification**: Filtering and aggregating error entries to identify common issues or patterns.
3. **Log Frequency Analysis**: Counting occurrences of log entries by different log levels or message types.
4. **Database Performance Monitoring**: Extracting performance-related metrics from logs to monitor database health.
5. **User Behaviour Analysis**: Filtering and analyzing logs related to user activities or interactions.
6. **Data Quality and Validation**: Checking for inconsistencies or missing values in the log data.

Objectives Implemented in Python:

1. **Time Series Analysis**: Analyzing and visualizing log data over time to identify patterns or anomalies.
2. **Anomaly Detection**: Implementing algorithms to detect unusual patterns or outliers in log data.
3. **Trend Analysis**: Analyzing and visualizing trends in log data over time.
4. **Message Content Analysis**: Performing text analysis on log messages to extract keywords or phrases and perform sentiment analysis.