Real-Time System Resource Monitor (RSRM)

Group members:

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Problem Statement:

Develop a system resource monitoring tool that provides real-time information on CPU usage, memory usage, disk activity, and network traffic. The tool will visualize this data through real-time graphs and charts, allowing users to gain insights into their system's performance.

Tasks to Be Done:

1. Design and Planning:
   - Defining the project objectives, including the metrics to monitor and features to implement.
   - Selecting the programming language and libraries for development.
   - Designing the user interface, layout, and visualization options.
   - Planning the data collection and real-time updating mechanisms.

2. Data Collection and Real-Time Visualization:
   - Implementing code for collecting real-time data on CPU, memory, disk activity, and network traffic.
   - Creating visualizations using data visualization libraries.

3. User Interface and Interaction:
   - Developing the user interface to display the visualized data.

4. Alerting and Notifications:

- Add the ability to set alerts based on specific conditions (e.g., high CPU usage for a certain period)

5. <u>Coding and Testing:</u>
   - Coding different aspects of the tool based on the assigned responsibilities.
   - Conducting tests for the respective components to ensure they function correctly.

6. <u>Documentation:</u>
   - Collaboratively prepare documentation during the development process.

Some of the resources that will be monitored:
- CPU Usage
- Memory Usage
- Network Traffic
- Processes
- Hardware Information

Responsibilities of Each Member:

<u>Member 1:</u>
- Data collection (CPU and memory metrics, etc).

<u>Member 2:</u>
- Data collection (Processes and network traffic metrics, etc).

<u>Member 3:</u>
- Alerting and notifications.
- User interface development.

<u>Member 4:</u>
- Alerting and notifications.
- User interface development.

<u>The following tasks will be done collaboratively:</u>
- Deciding which other resources to monitor
- Designing of UI
- Integration of various parts of the project
- Documentation
- Final testing