**Text

Description automatically generatedRate the Scenario:   
Good, Bad, or Indifferent?**

**Example Scenario 1**

A manufacturing facility had problems with consistent equipment breakdowns causing assembly lines to stop working. The equipment was overheating, vibrating, and losing electrical connectivity. The maintenance technicians would find the problems but only after the assembly line broke down. The company was losing money on a weekly basis. The plant manager asked Cynthia, a production technician, to find a solution. After a few days Cynthia reported to her manager she found a solution using IoT. Cynthia’s plan was to install IoT devices to monitor the part of the assembly line that was breaking down. The IoT devices were attached to the motors, conveyor belts and electrical systems, and then connected to a central monitoring system. The central monitoring system allowed the maintenance technician to identify and repair parts that were going bad before they failed and shut down an assembly line.

**What is the real-world context?**

**What is the complex problem being addressed?**

**How are multiple skill areas required for solving the problem?**

**Can this scenario be improved?**

**Example Scenario 2**

How will a technician use data visualization? Evan Garcia is a technician for Green Mountain Power Company. He is responsible for tracking increased system outages over time across a metropolitan network, collects outage statistics, including system logs, environmental information, and helpdesk ticket details from network nodes and service centers in order to determine the cause. Evan stores the data in an Excel workbook, then imports data into SAS, Tableau, or MS Power BI visualization tools and creates a dashboard to present to management. The data dashboard provides an interactive geographical heat map showing outage details and other graphical representations of his data analysis of the event. The heat map allows management to make real-time decisions and troubleshoot problems.

**What is the real-world context?**

**What is the complex problem being addressed?**

**How are multiple skill areas required for solving the problem?**

**Can this scenario be improved?**