

Business Question and Visualization Report

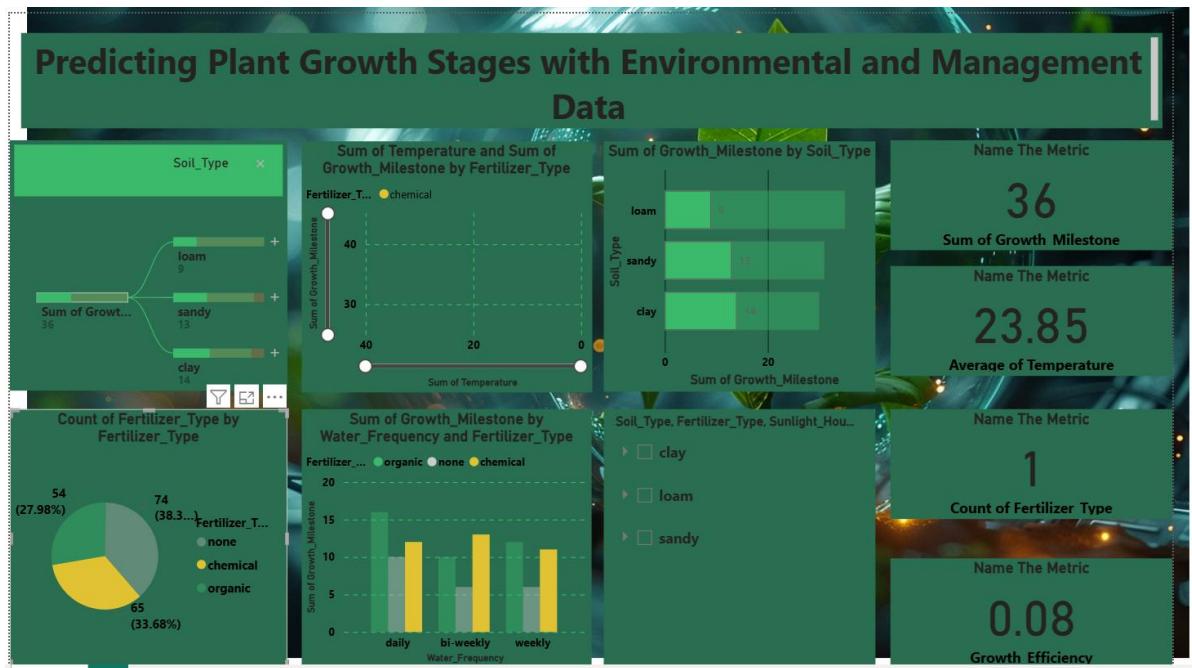
Date	26 July 2025
Team ID	Vinayak Garg
Project Name	Predicting plant growth stages
Maximum Marks	5 Marks

Visualization development refers to the process of creating graphical representations of data to facilitate understanding, analysis, and decision-making. The goal is to transform complex datasets into visual formats that are easy to interpret, enabling users to gain insights and make informed decisions. Visualization development involves selecting appropriate visual elements, designing layouts, and using interactive features to enhance the user experience. This process is commonly associated with data visualization tools and platforms, and it plays a crucial role in business intelligence, analytics, and reporting.

Business Questions and Visualisation

The process involves defining specific business questions to guide the creation of meaningful and actionable visualizations in Power BI. Well-framed questions help in identifying key metrics, selecting relevant data, and building visualisation that provide insights.

Dashboard visualisation



Questions

8 business questions derived from the Power BI visualisation:

1. What is the total number of plant growth milestones recorded?

Answer: 36

 **Visual Used:** KPI Card

 **Reference:** Top-right corner – "Sum of Growth Milestone"

2. What is the average temperature across all growth records?

Answer: 23.85°C

 **Visual Used:** KPI Card

 **Reference:** Second card from top-right – "Average of Temperature"

3. How many unique fertilizer types are used in the dataset?

Answer: 1 (currently filtered)

 **Visual Used:** KPI Card

 **Reference:** Third card from top-right – "Count of Fertilizer Type"

4. What is the growth efficiency value across all records?

Answer: 0.08

 **Visual Used:** KPI Card

 **Reference:** Bottom-right card – "Growth Efficiency"

5. How do different soil types contribute to growth milestones?

Answer:

○ **Clay: Highest contribution (14)**

○ **Sandy: 13**

○ **Loam: 9**

 **Visual Used:** Bar Chart

 **Reference:** Top-middle horizontal bar chart – "Sum of Growth_Milestone by Soil_Type"

6. What is the distribution of fertilizer types used in the dataset?

Answer:

○ **Chemical: 74 (38.3%)**

○ **Organic: 65 (33.68%)**

- **None: 54 (27.98%)**

 **Visual Used:** Pie Chart

 **Reference:** Bottom-left – “Count of Fertilizer_Type by Fertilizer_Type”

7. How do different water frequencies and fertilizer types affect growth milestones?

Answer:

- **Daily + Organic: Highest growth observed**

- **Weekly + Chemical: Lower growth**

 **Visual Used:** Clustered Bar Chart

 **Reference:** Bottom-middle – “Sum of Growth_Milestone by Water_Frequency and Fertilizer_Type”

8. How does temperature correlate with growth milestone for different fertilizer types?

Answer:

- **Fertilizer types have varying growth levels across temperatures.**

 **Visual Used:** Scatter Plot

 **Reference:** Middle – “Sum of Temperature and Growth_Milestone by Fertilizer_Type”