

Business Question and Visualization Report

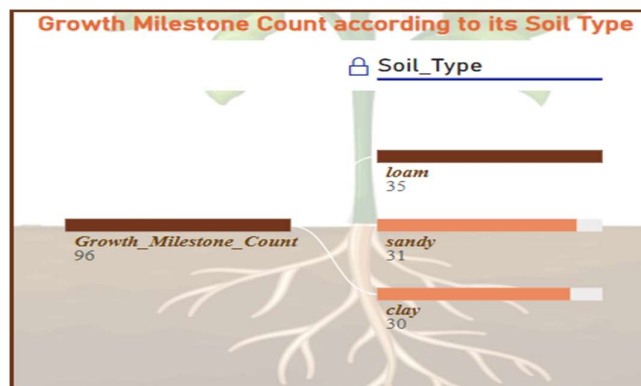
Date	23 July 2025
Team ID	xxxxxx
Project Name	Predicting Plant Growth Stages with Environmental and Management Data Using Power BI
Maximum Marks	5 Marks

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, make informed decisions.

Business Questions and Visualisation

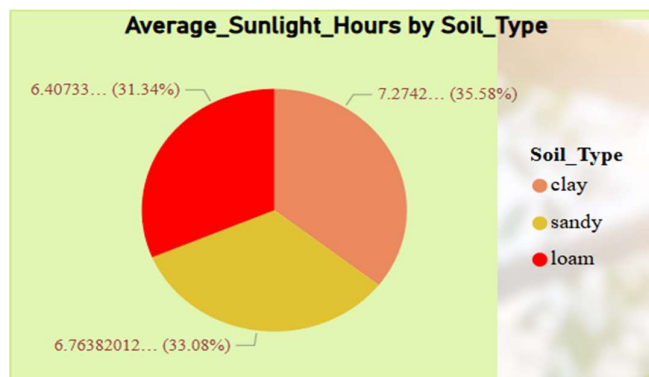
1. Which Soil Type contributes to the Highest Plant Growth Milestones?

- *Visualization:* Bar chart showing “Growth Milestone Count according to its soil type”.



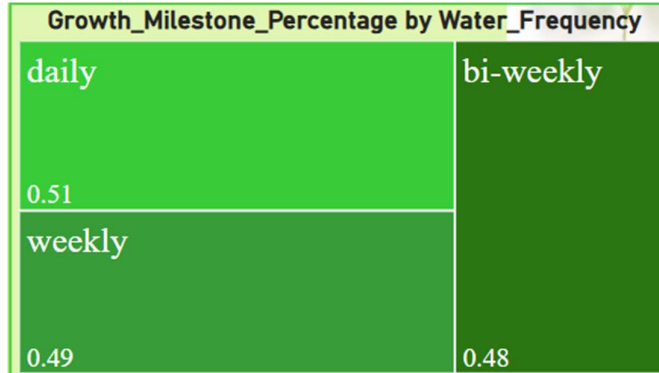
2. What is the distribution of average sunlight hours for each soil type?

- *Visualization:* Pie chart entitled “Average_Sunlight_Hours by Soil_Type”



3. What watering frequency maximizes growth milestone achievement?

- *Visualization:* Stacked square chart named “Growth_Milestone_Percentage by Water_Frequency”.



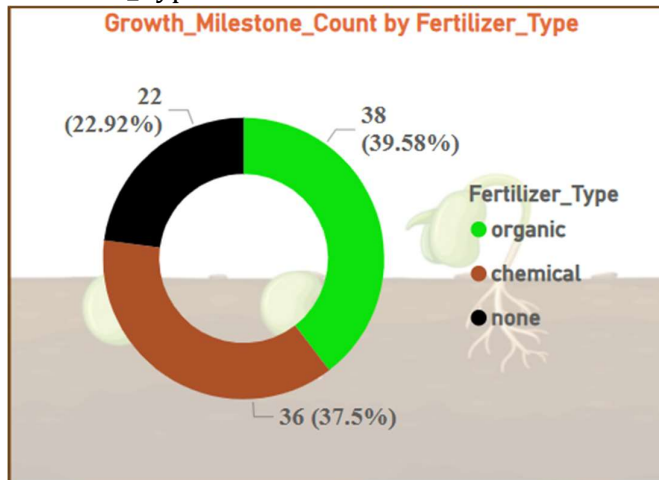
4. What Humidity ranges optimize plant growth?

- *Visualization:* Line Chart for “Growth_Milestone_Count by Humidity_Level_Description”



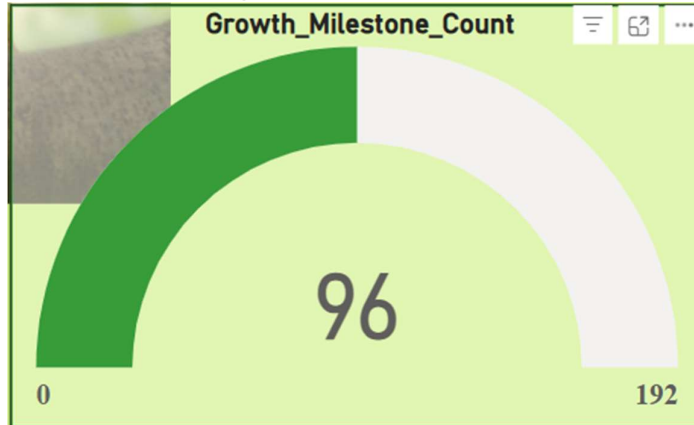
5. How does Fertilizer Type affect plant growth milestone?

- *Visualization:* Donut Chart named “Growth_Milestone_Count by Fertilizer_Type”.



6. What is the overall growth milestone count across the description?

- Visualization: Gauge entitled "Growth_Milestone_Count"



7. Which combination of water frequency and soil type leads to the highest aggregated values?

- Visualization: Matrix named "Water frequency according to its Soil Type."

Water Frequency according to its Soil Type			
Soil_Type	High	Moderate	Total
loam	191.61	205.65	397.25
weekly	45.06	51.26	96.31
daily	64.02	54.73	118.75
bi-weekly	82.53	99.66	182.19
sandy	215.43	217.46	432.88
bi-weekly	33.29	60.49	93.78
weekly	35.27	70.65	105.92
daily	146.87	86.32	233.19
Total	687.28	630.24	1,317.51

8. What is average temperature, average humidity and average sunlight hours?

- Visualization: Cards

