

Dashboard Design

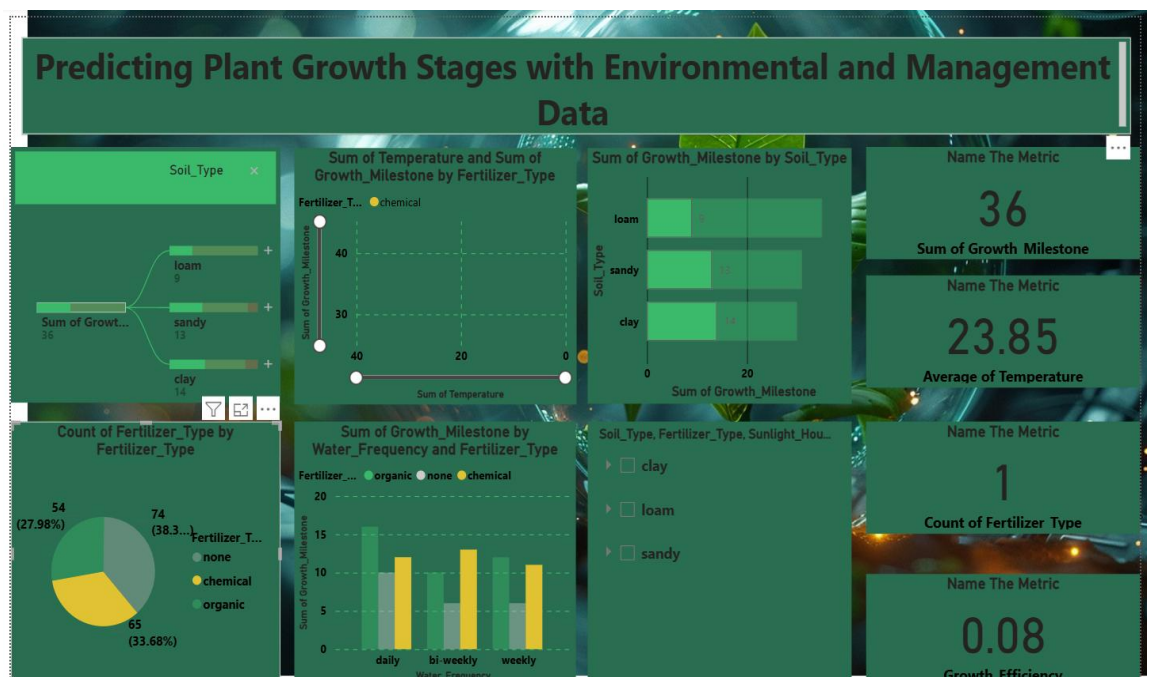
Date	26 july 2025
Team ID	Vinayak Garg
Project Name	Predicting plant growth stages
Maximum Marks	5 Marks

Creating an effective dashboard involves thoughtful design to ensure that the presented information is clear, relevant, and easily understandable for the intended audience. Here are some key principles and best practices for dashboard design

Activity 1: Interactive and visually appealing dashboards

Creating interactive and visually appealing dashboards involves a combination of thoughtful design, effective use of visual elements, and the incorporation of interactive features. Here are some tips to help you design dashboards that are both visually appealing and engaging for users so take care of below points

- Clear and Intuitive Layout
- Use Appropriate Visualizations
- Colour and Theming
- Interactive Filters and Slicers
- Drill-Down Capabilities



Major Outcomes from the Dashboard

- **Average Temperature Level:** The dashboard reflects an average temperature of 23.85°C, suggesting a moderate climate condition that supports healthy plant development.
- **Fertilizer Usage Insight:** There is only 1 fertilizer type selected, highlighting a focused analysis to measure its effectiveness in influencing plant growth.
- **Total Growth Milestones:** The sum of growth milestones is 36, giving a clear numeric benchmark for comparing combinations of environmental conditions.
- **Soil Type Performance:** Among the soil types, Clay soil contributes the most (14 growth points), followed by Sandy (13) and Loam (9), indicating Clay's favorable characteristics for plant development in this scenario.
- **Fertilizer Type Distribution:** The pie chart reveals Chemical fertilizers are used in 38.3% of records, followed by Organic (33.68%) and None (27.98%), providing insights into adoption patterns.
- **Growth vs. Temperature by Fertilizer Type:** The scatter plot indicates that growth milestones vary across different temperature ranges depending on fertilizer types, with certain combinations performing better around 20–30°C.
- **Water Frequency and Fertilizer Impact:** The clustered bar chart highlights that daily watering combined with organic fertilizer results in the highest growth milestone output, reinforcing the importance of consistent irrigation with natural inputs.
- **Growth Milestone Breakdown:** The decomposition tree shows that the best outcomes occur under Loam soil, daily watering, and 6–8 hours of sunlight, validating Scenario 1 and offering a reliable growth strategy.