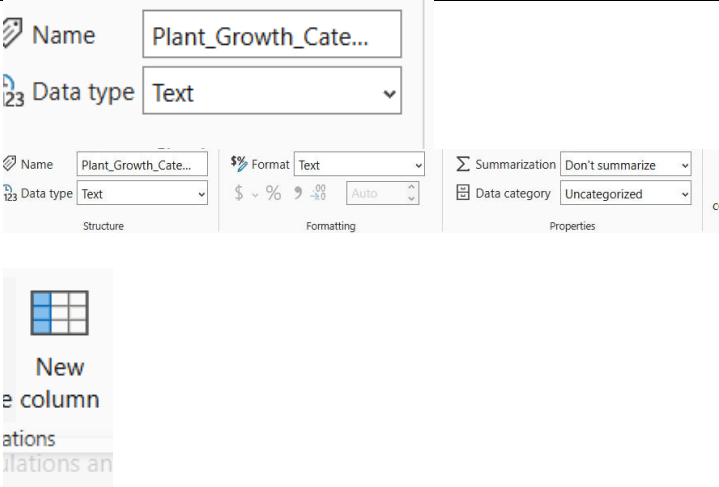


## Project Development Phase Model Performance Test

Date	16 March 2025
Team ID	PNT2025TMID06851
Project Name	Predicting Plant Growth Stages with Environmental and Management Data Using Power BI.
Maximum Marks	

### Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Screenshot / Values
1.	Data Rendered	14 column and 193 Rows.
2.	Data Preprocessing	
3.	Utilization of Data Filters	We had shorted the data by giving the data type text, whole no. and the decimal no.
4.	DAX Queries Used	<p>Water_Frequency_Numeric = SWITCH( [Water_Frequency], "daily", 1, "bi-weekly", 2, "weekly", 3, BLANK())</p> <p>Temperature_Range = SWITCH( </p>

		<pre> TRUE(), [Temperature] &lt; 15, "Low", [Temperature] &gt;= 15 &amp;&amp; [Temperature] &lt; 25, "Moderate", [Temperature] &gt;=25, "High" )  Humidity_Range = SWITCH( TRUE(), [Humidity] &lt; 40, "Low", [Humidity] &gt;= 40 &amp;&amp; [Humidity] &lt; 60, "Moderate", [Humidity] &gt;= 60, "High" )  Humidity_Level_Description = SWITCH( TRUE(), [Humidity] &lt; 30, "Very Dry", [Humidity] &gt;= 30 &amp;&amp; [Humidity] &lt; 50, "Dry", [Humidity] &gt;= 50 &amp;&amp; [Humidity] &lt; 70, "Moderate", [Humidity] &gt;= 70 &amp;&amp; [Humidity] &lt; 90, "Humid", [Humidity] &gt;= 90, "Very Humid" )  Temperature_Range_Description = SWITCH( TRUE(), [Temperature] &lt; 10, "Very Cold", [Temperature] &gt;= 10 &amp;&amp; [Temperature] &lt; 20, "Cold", [Temperature] &gt;= 20 &amp;&amp; [Temperature] &lt; 30, "Moderate", [Temperature] &gt;= 30 &amp;&amp; [Temperature] &lt; 40, "Warm", [Temperature] &gt;= 40, "Hot")  Growth_Milestone_Description = SWITCH( [Growth_Milestone], 0, "Early Stage", 1, "Mature Stage", "Unknown Stage" )  Plant_Growth_Category = SWITCH( </pre>
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		<div>[Growth_Milestone], 0, "Initial Growth", 1, "Advanced Growth", "Uncategorized" )</div>																																																				
5.	Dashboard design	<div><div><div><div><div>Plant Growth Milestones : Factors And Insights</div><div><div><div>Water_Frequency_According_To_Soil_Type</div><table><thead><tr><th>Soil_Type</th><th>High</th><th>Moderate</th><th>Total</th></tr></thead><tbody><tr><td>clay</td><td>280.24</td><td>207.13</td><td>487.37</td></tr><tr><td>  weekly</td><td>125.22</td><td>86.32</td><td>211.54</td></tr><tr><td>  daily</td><td>35.42</td><td>40.66</td><td>76.09</td></tr><tr><td>  bi-weekly</td><td>59.60</td><td>60.15</td><td>119.75</td></tr><tr><td>sandy</td><td>215.43</td><td>217.46</td><td>432.89</td></tr><tr><td>  weekly</td><td>146.87</td><td>86.32</td><td>233.19</td></tr><tr><td>  daily</td><td>35.27</td><td>70.25</td><td>105.52</td></tr><tr><td>  bi-weekly</td><td>33.29</td><td>60.89</td><td>94.18</td></tr><tr><td>loam</td><td>191.61</td><td>205.65</td><td>397.26</td></tr><tr><td>  bi-weekly</td><td>82.55</td><td>69.04</td><td>151.59</td></tr><tr><td>  daily</td><td>64.02</td><td>54.73</td><td>118.75</td></tr><tr><td>Total</td><td>687.26</td><td>690.24</td><td>1377.51</td></tr></tbody></table></div><div><div>Sum of Growth_Milestone by Fertilizer_Type</div><div>Fertilizer_Type</div><ul style="list-style-type: none"><li>organic</li><li>chemical</li><li>none</li></ul></div></div><div><div>Average_Temperature_and Sum of Temperature by Temperature_Range_Description</div><div>Average_Temperature</div><div>Temperature_Range_Description</div><div>Temperature_And Its Description According To its Plant Growth</div><div>Key influencers: Top segments</div><div>What influences Temperature to: [Decrease]</div><div>When... [Decrease] ...the average of Temperature decreases by [9.25]</div><div>Temperature_Range is Moderate</div></div><div><div>Average_Humidity by Humidity_Level_Description</div><div>Average_Humidity</div><div>Humidity_Level_Description</div><div>Growth_Milestone_Count According To its Soil_Type</div><div>Growth_Milestone_Count</div><div>Soil_Type</div></div></div></div></div></div>	Soil_Type	High	Moderate	Total	clay	280.24	207.13	487.37	weekly	125.22	86.32	211.54	daily	35.42	40.66	76.09	bi-weekly	59.60	60.15	119.75	sandy	215.43	217.46	432.89	weekly	146.87	86.32	233.19	daily	35.27	70.25	105.52	bi-weekly	33.29	60.89	94.18	loam	191.61	205.65	397.26	bi-weekly	82.55	69.04	151.59	daily	64.02	54.73	118.75	Total	687.26	690.24	1377.51
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6	Report Design	<div><div><div><div><div>6.83</div><div>Average_Sunlight_Hours</div><div>Average_Sunlight_Hours by Soil_Type</div><div>Soil_Type</div><ul style="list-style-type: none"><li>clay</li><li>sandy</li><li>loam</li></ul></div></div><div><div>Growth_Milestone_Percentage by Water_Frequency</div><div>Growth_Milestone_Percentage</div><div>Water_Frequency</div></div></div><div><div>58.10</div><div>Average_Humidity</div><div>At 74.02 , Humid had the highest Average_Humidity and was 79.53 % higher than Dry, which had lowest Average_Humidity at 41.23.</div><div>Humid had the highest_Average_Humidity at 74.02, followed by Moderate at 60.10 and Dry at 41.23.</div><div>Moderate had 60.10 23 Average_Humidity . Dry had 41.23 and Humid had 74.02.</div><div>Temperature_Range_Description contributed the most to the Decrease of Temperature, when Temperature_range_description was cold Temperature decreased by 9.70%</div><div>clay had Highest Average of sunlight_hours at 7.27, followed by sandy at 6.76 and loam at 6.41</div><div>At 54, Moderate had the highest Growth_Milestone_Count and was 260.00% higher than Humid, Which had the lowest Growth_Milestone_Count at 15.</div><div>Moderate had 54 Growth_Milestone_Count Dry had 27. And Humid had 15.</div></div><div><div>25.08</div><div>Average_Temperature</div><div>Growth_Milestone_Count by Humidity_Level_Description</div><div>Growth_Milestone_Count</div><div>Humidity_Level_Description</div><div>Growth_Milestone_Count</div><div>Growth_Milestone_Count</div></div></div>																																																				