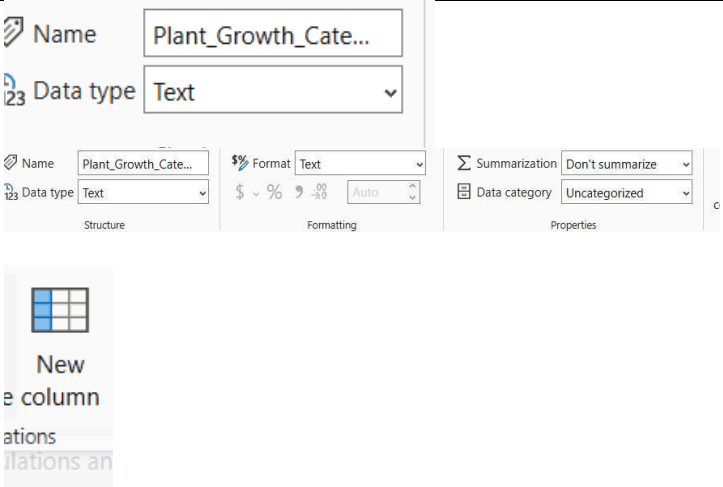


## Project Development Phase Model Performance Test

Date	25 March 2025
Team ID	PNT2025TMID06665
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	<pre>Water_Frequency_Numeric = SWITCH(     [Water_Frequency],     "daily", 1,     "bi-weekly", 2,     "weekly", 3,     BLANK())  Temperature_Range = SWITCH(</pre>

		<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>Plant Growth Milestone : Factors and Insights</div><div><div><div>Water_Frequency according to its Soil Type</div><table><tr><th>Soil_Type</th><th>Cold</th><th>Moderate</th><th>Warm</th><th>Total</th></tr><tr><td>clay</td><td>242.33</td><td>881.10</td><td>567.82</td><td>1,691.26</td></tr><tr><td>bi-weekly</td><td>85.75</td><td>199.28</td><td>159.38</td><td>444.41</td></tr><tr><td>daily</td><td>71.83</td><td>291.94</td><td>124.63</td><td>488.39</td></tr><tr><td>weekly</td><td>84.75</td><td>389.89</td><td>233.82</td><td>758.46</td></tr><tr><td>loam</td><td>190.19</td><td>975.11</td><td>380.25</td><td>1,545.54</td></tr><tr><td>bi-weekly</td><td>73.36</td><td>447.67</td><td>186.42</td><td>707.45</td></tr><tr><td>daily</td><td>102.34</td><td>208.47</td><td>193.83</td><td>505.24</td></tr><tr><td>weekly</td><td>16.89</td><td>316.97</td><td></td><td>333.86</td></tr><tr><td>sandy</td><td>262.80</td><td>766.60</td><td>575.40</td><td>1,604.80</td></tr><tr><td>Total</td><td>699.40</td><td>2,620.81</td><td>1,523.47</td><td>4,839.68</td></tr></table></div><div><div>Average_Temperature by Temperature_Range_Description</div><div>Temperature and its Description according to plant growth</div><div>Key influencers: Top segments</div><div>When is Temperature more likely to be: Low</div><div>We found 1 segments and ranked them by Average Temperature: 10.24</div></div><div><div>Growth_Milestone_Count by Fertilizer_Type</div><div>Average_Humidity by Humidity_Level_Description</div><div>Growth Milestone Count according to its Soil Type</div><div>Q Soil Type</div><div>loam: 23, sandy: 31</div></div></div></div> <tr><td>6</td><td>Report Design</td><td><div><div><div>Average_Humidity</div><div>58.10</div></div><div><div>Average_Sunlight_Hours</div><div>6.83</div></div><div><div>Average_Temperature</div><div>25.08</div></div></div><div><div><div>Average_Sunlight_Hours by Soil_Type</div><div>Growth_Milestone_Percentage by Water_Frequency</div><div>REPORT</div><div>At 74.02, Humid had the highest Average_Humidity and was 79.53% higher than Dry, which had the 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 60.10Average_Humidity, Dry had 41.23, and Humid had 74.02.</div><div>Temperature_Range contributed the most to the Decrease of Temperature. When Temperature_Range was Moderate, Temperature Decreased by 9.25.</div><div>clay had the highest Average_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><div><div>Growth_Milestone_Count by Humidity_Level_Description</div><div>Growth_Milestone_Count</div></div></div></td></tr>	Soil_Type	Cold	Moderate	Warm	Total	clay	242.33	881.10	567.82	1,691.26	bi-weekly	85.75	199.28	159.38	444.41	daily	71.83	291.94	124.63	488.39	weekly	84.75	389.89	233.82	758.46	loam	190.19	975.11	380.25	1,545.54	bi-weekly	73.36	447.67	186.42	707.45	daily	102.34	208.47	193.83	505.24	weekly	16.89	316.97		333.86	sandy	262.80	766.60	575.40	1,604.80	Total	699.40	2,620.81	1,523.47	4,839.68	6	Report Design	<div><div><div>Average_Humidity</div><div>58.10</div></div><div><div>Average_Sunlight_Hours</div><div>6.83</div></div><div><div>Average_Temperature</div><div>25.08</div></div></div> <div><div><div>Average_Sunlight_Hours by Soil_Type</div><div>Growth_Milestone_Percentage by Water_Frequency</div><div>REPORT</div><div>At 74.02, Humid had the highest Average_Humidity and was 79.53% higher than Dry, which had the 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 60.10Average_Humidity, Dry had 41.23, and Humid had 74.02.</div><div>Temperature_Range contributed the most to the Decrease of Temperature. When Temperature_Range was Moderate, Temperature Decreased by 9.25.</div><div>clay had the highest Average_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><div><div>Growth_Milestone_Count by Humidity_Level_Description</div><div>Growth_Milestone_Count</div></div></div>
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