Project Development Phase Model Performance Test

Date	12 March 2025	
Team ID	PNT2025TMID02948	
I FIUIEU Naine	Predicting Plant Growth Stages with Environmental and Management Data	
Maximum Marks	4	

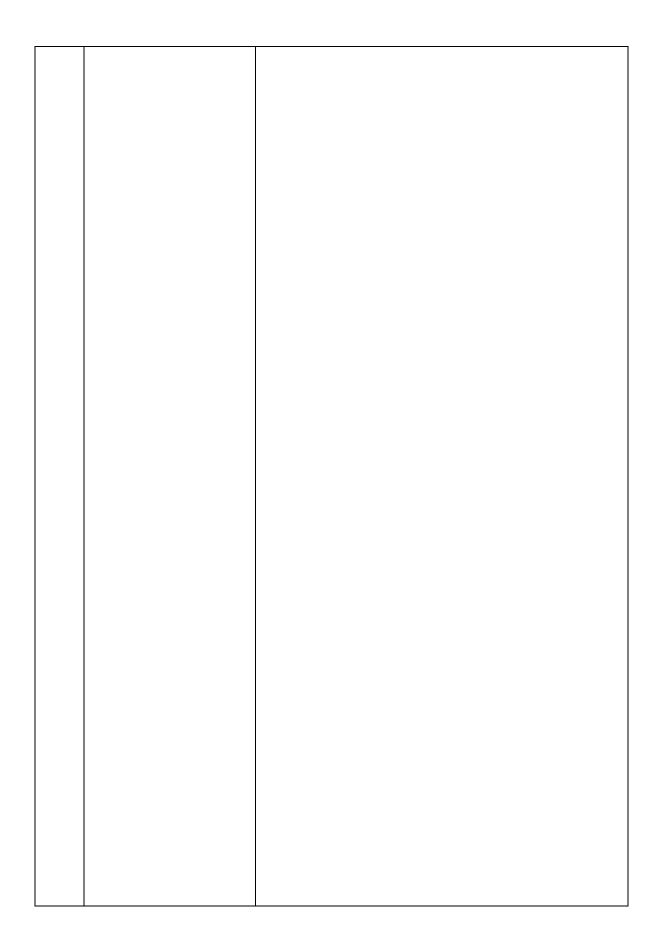
Model Performance Testing:

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

S.No.	Parameter	Screenshot / Values
1.	Data Rendered	- Temperature Trends: 20°C - 35°C - Humidity Patterns: 40% - 80% - Soil Moisture Levels: 30% - 70% - Sunlight Exposure: 6 - 12 hours/day - Irrigation Schedules: Twice a week - Fertilizer Usage: 5g per plant every 15 days
2.	Data Preprocessing	 Missing Value Handling: Mean imputation for missing temperature values. Standardization: Soil moisture data normalized between 0-1 scale. Outlier Detection: Removing humidity readings above 90% or below 10%.
3.	Utilization of Data Filters	Date Range Filter, Environmental Filters

```
Avg_Temperat
DAX Queries Used
                            ure =
                          CALCULATE(
                            AVERAGE('PI
                            antData'[tem
                            perature]),
                            ALLEXCEPT('
                            PlantData',
                            'PlantData'[g
                            rowth_miles
                            tone])
                          Count_By_Soil
                            _Type =
                          SUMMARIZE(
                            'PlantData',
                            'PlantData'[s
                            oil_type],
                            "Total
                            Plants",
                            COUNT('Plan
                            tData'[growt
                            h_milestone]
                            )
                          Total_Water_F
                            requency =
                          SUMMARIZE(
                            'PlantData',
                            'PlantData'[g
                            rowth_miles
                            tone],
                            "Total
                            Watering",
                            SUM('PlantD
                            ata'[water_fr
                            equency])
                          Avg_Humidity_
                            By_Fertilizer
                          CALCULATE(
                            AVERAGE('PI
                            antData'[hu
```

```
midity]),
  ALLEXCEPT('
  PlantData',
  'PlantData'[f
  ertilizer_typ
  e])
Is_Optimal_Co
  ndition =
IF(
  'PlantData'[t
  emperature]
  BETWEEN 20
  && 30 &&
  'PlantData'[h
  umidity]
  BETWEEN 50
  && 70,
  "Optimal",
  "Not
  Optimal"
```



	SUM('world_food_production_cleaned'[Potatoes Production (tonnes)]) + SUM('world_food_production_cleaned'[Rice (tonnes)]) +	Production

		SUM('world_food_production_cleaned'[Rye Production (tonnes)]) + SUM('world_food_production_cleaned'[Soybeans Production (tonnes)]) + SUM('world_food_production_cleaned'[Sugar cane Production (tonnes)]) + SUM('world_food_production_cleaned'[Sunflower seed Production (tonnes)]) + SUM('world_food_production_cleaned'[Sweet potatoes Production (tonnes)]) +		
		SUM('world_food_production_cleaned'[Tea Production (tonnes)]) + SUM('world_food_production_cleaned'[Tomatoes Production (tonnes)]) +		
		SUM('world_food_production_cleaned'[Wheat Production (tonnes)]) + SUM('world_food_production_cleaned'[Yams Production (tonnes)])		
5.	Dashboard design	No of Visualizations -8 (1) Slicer (2) Card (3) Guage Chart (4) Bar Chart (5) Area Chart (6) Ribbon Chart (7) Donut Chart (8) Text box		
6	Report Design	No of Visualizations – 7 (1) Slicer (2) Card (3) Pie Chart (4) Donut Chart (5) Table (6) Line Chart (7) Text box		