**Power BI Project Task – Rainfall Data Dashboard**

**Role:** Data Analyst Intern  
**Organization:** SoulVibe.Tech  
**Tool:** Microsoft Power BI  
**Dataset:** district wise rainfall normal.csv

**Objective:**

To design an interactive dashboard that analyzes seasonal and monthly rainfall trends across Indian districts and states using Power BI.

**Dataset Overview:**

Each record contains:

* **State / UT name**
* **District name**
* **Monthly rainfall** (JAN to DEC)
* **Seasonal aggregates** (Jan-Feb, Mar-May, Jun-Sep, Oct-Dec)
* **Annual rainfall**

**Steps & Instructions:**

**1. Import Data**

* Open Power BI Desktop.
* Load the district wise rainfall normal.csv file.
* Rename the table as RainfallData.

**2. Data Cleaning & Formatting**

* Ensure all columns are recognized correctly as decimal or text.
* Rename columns to remove special characters/spaces (e.g., State, District, Jan, Feb, ..., Annual).
* Create a new column:

**3. Dashboard Requirements:**

**KPI Cards:**

* Average Annual Rainfall
* Total Number of Districts
* Highest Monthly Rainfall (max across all months)
* District with Highest Annual Rainfall

**Visualizations:**

1. **Bar Chart:**
   * **X-axis:** States
   * **Y-axis:** Average Annual Rainfall
   * Sort by descending rainfall
2. **Stacked Column Chart:**
   * **X-axis:** Months (Jan–Dec)
   * **Y-axis:** Rainfall
   * **Legend:** State (or Region Category)
   * Shows how rainfall distributes across months
3. **Map Visual:**
   * **Location:** District
   * **Size or Color:** Annual Rainfall
   * Tooltips: Show state and seasonal breakdowns
4. **Pie or Donut Chart:**
   * Seasonal rainfall contribution: Compare Jun-Sep, Mar-May, etc.
5. **Slicer Filters:**
   * State
   * Region Category (Low, Moderate, Heavy)
   * Month Selector (Jan–Dec)
   * Seasonal Range
6. **Table Visual (Optional):**
   * Show District, State, Annual Rainfall, and Region Category in a data table format

**Analysis Tasks (Interns Must Answer):**

1. Which state receives the highest average annual rainfall?
2. Which district reports the highest rainfall in July?
3. What is the trend of monsoon (Jun–Sep) rainfall across states?
4. How do pre-monsoon (Mar–May) and post-monsoon (Oct–Dec) patterns differ?
5. Identify 5 driest districts and analyze their monthly distribution.

**Deliverables:**

* .pbix Power BI file
* A short **PDF report or slide** explaining key observations
* Optional: publish and share Power BI link if hosted on Power BI Service

**Submission Format:**

* File Name: YourName\_PowerBI\_Rainfall.pbix
* Report: YourName\_PowerBI\_Insights.pdf
* Deadline: **[22-06-2025 to 05-07-2025]**