**Univariate**

**1: What is the distribution of daily water consumption (liters) across households?**

The **daily water consumption** ranges from **340 L to 860 L** (mean ≈576.7 L, median 575 L, mode 520 L). About 50% of values lie between 480 L (Q1) and 692.5 L (Q3)

2: What is the distribution of recorded temperatures (°C)?

Temperature values range from ~23.9 °C to 31.4 °C (mean ≈28.75 °C, median 27.0 °C, mode ≈23.9 °C)

3.What is the distribution of humidity (% relative humidity)?

Humidity percentages range from 47% to 72% (mean ≈57.79%, median 58%, mode #55%).

4.What is the distribution of water used by appliances (liters)

Appliance water use spans 40 L to 100 L per day (mean ≈70.45 L, median 75 L)

5. How are households distributed by water source type

water source type Municipal-41 Borewell-31 Tanker-28 municipal is highest

**Bivariate**

**1.How are the numeric variables intercorrelated?**

All numeric features are **positively correlated**, often strongly. The highest correlation is between **Members and Daily_Water_Consumption_Liters**

**2.How does temperature relate to water consumption**

**based on the graph i observed positive correlation**

**Higher outdoor temperature is associated with higher water consumption**

**3.How does humidity relate to water consumption?**

**based on the graph i observed positive correlation**

**Similarly, humidity has a very high positive correlation (≈+0.965) with total consumption**

**4.Is water consumption different on weekends vs weekdays?**

**observe the graph weekend consume water high**

**5.Does water source type affect consumption?**

**based on graph here are differences by source type. Municipal customers have the highest average consumption (~598.5 L), Tanker next (~571.1 L), and Borewell the lowest (~552.9 L). This might reflect unlimited supply or socioeconomic factors.**