**Univariate Normality Analysis**

**Note :**  In Result table for Single dimension data having 50000 is considered

H0 : Data follows Multivariate Normal Distribution

H1 : Data follows Multivariate Normal Distribution

1. **Anderson Darling Test**

i) Normal Data

Test Statistic : 0.16463

Critical Value (5% Significance Level) : 0.787

Time Taken : 11.97 ms

Null hypothesis not rejected: The sample follows the normal distribution.

ii) Non-Normal Data

Test Statistic : 6106.43862

Critical Value (5% Significance Level) : 0.787

Time Taken : 11.16 ms

Null hypothesis rejected: The sample does not follow the normal distribution.

1. **Shapiro Test**

i) Normal Data

pvalue : 0.9998

Time Taken : 9.97162 ms

Null hypothesis not rejected: The sample follows the normal distribution.

ii) Non-Normal Data

pvalue : 0.0

Time Taken : 6.05106 ms

Null hypothesis rejected: The sample does not follow the normal distribution.

1. **Kolmogorov Smirnov Test**

i) Normal Data

pvalue : 0.9988

Time Taken : 12.96282 ms

Null hypothesis not rejected: The sample follows the normal distribution.

ii) Non-Normal Data

pvalue : 0.0

Time Taken : 9.97353 ms

Null hypothesis rejected: The sample does not follow the normal distribution.

1. **Lilliefors Test**

i) Normal Data

pvalue : 0.9669

Time Taken: 6.98304 ms

Null hypothesis not rejected: The sample follows the normal distribution.

ii) Non-Normal Data

pvalue : 0.001

Time Taken: 6.9797 ms

Null hypothesis rejected: The sample does not follow the normal distribution.

1. **Jarque Bera Test**

i) Normal Data

pvalue : 0.684

Time Taken: 3.80278 ms

Null hypothesis not rejected: The sample follows the normal distribution.

ii) Non-Normal Data

pvalue : 0.0

Time Taken: 2.99287 ms

Null hypothesis rejected: The sample does not follow the normal distribution.

1. **D’Agostino’s K^2 Test**

i) Normal Data

pvalue : 0.6833

Time Taken: 3.95393 ms

Null hypothesis not rejected: The sample follows the normal distribution.

ii) Non-Normal Data

pvalue : 0.0

Time Taken: 3.9885 ms

Null hypothesis rejected: The sample does not follow the normal distribution.