IQR Rule:

Outlier Detection is balance between sensitivity and stringency, aiming to identify outliers that are meaningfully different from rest of the data without being overly sensitive.

To detect outliers because it most closely follows Gaussian distribution. As result the method dictates that any data point that's 1.5 points below the lower bound quartile or above the upper bound quartile is an outlier.

Example:

Compare the 2 Interquartile ranges

Any outliers in range

	Minimum	Q1	Median	Q3	Maximum
Day	32	56	74.5	82.5	99
Night	25.5	78	81	89	98

Day IQR 82.5-56 = 26.5

Lesser Range Q1-(1.5) (IQR) -> 56-(1.5) (26.5) = 16.25

Greater range Q3+(1.5) (IQR) -> 82.5+(1.5) (26.5) = 122.25

Night IQR 89-78 = 11

Lesser Range Q1-(1.5) (IQR) -> 78-(1.5) (11) = 61.5

Greater range Q3+(1.5) (IQR) -> 89+(1.5) (11) = 105.5

In the above **Day** example, Lesser range is 16.25 and Minimum value is 32. Where lesser range is lesser than minimum means, Lesser Outlier is present

In the above **Night** example, Lesser range is 61.5 and Minimum value is 25.5. Where lesser range is greater than minimum means, Lesser Outlier is not present

In the above **Day** and **Night** example, Both Maximum values are lower than the Greater range of both. So No Greater Outlier is present.