

- The interquartile range. Compare the two interquartile ranges.
- Any outliers in either set.

The five number summary for the day and night classes is

	Minimum	Q_1	Median	Q_3	Maximum
Day	32	56	74.5	82.5	99
Night	25.5	78	81	89	98

Day IQR:

$$\text{IQR} = Q_3 - Q_1 = 82.5 - 56 = 26.5$$

$$\text{Day IQR} = 26.5$$

Day Lesser Outlier (DLO):

$$\text{DLO} = Q_1 - 1.5 \times \text{IQR} = 56 - 1.5 \times 26.5 = 16.25$$

Day Greater Outlier (DGO):

$$\text{DGO} = Q_3 + 1.5 \times \text{IQR} = 82.5 + 1.5 \times 26.5 = 122.25$$

If any of data goes beyond the DLO (16.25) those data can be ignore. Similarly, data goes above the DGO (i.e: 122.25) then we can ignore those data.

Conclusion: Minimum(32) and Maximum range (99) was with the limit of Day lesser Outlier(16.25) and Maximum outlier(122.22). So no data need to be eliminated.

Night IQR:

$$\text{IQR} = Q_3 - Q_1 = 89 - 78 = 11$$

$$\text{Night IQR} = 11$$

Night Lesser Outlier (NLO):

$$\text{NLO} = Q_1 - 1.5 \times \text{IQR} = 78 - 1.5 \times 11 = 61.5$$

Night Greater Outlier (NGO):

$$\text{NGO} = Q_3 + 1.5 \times \text{IQR} = 89 + 1.5 \times 11 = 105.5$$

If any of data goes beyond the NLO (61.5) those data can be ignore. Similarly, data goes above the NGO (i.e: 105.5) then we can ignore those data.

Conclusion: For the Night Minimum data was 25.5 and Maximum data was 98, Calculated lesser data (61.5) and Maximum data(98), Maximum data was in with the limit but where as minimum data was outoff the limit so 25.5 can be ignored from the Data.
