**Data Mining**

Assignment 2

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Box Plot:

**Energy Efficiency Data Set**

This data set is based on the study that assess the heating and cooling load requirements of buildings (that is, energy efficiency) as a function of building parameter. The energy analysis was performed using 12 different building shapes.

The aim is to use the eight features to predict each of the two responses.

The data set contains 8 attributes denoted by X1 till X8 and two responses (or outcomes) denoted by y1 and y2, where  
X1: Relative Compactness   
X2: Surface Area   
X3: Wall Area   
X4: Roof Area   
X5: Overall Height   
X6: Orientation   
X7: Glazing Area   
X8: Glazing Area Distribution   
y1: Heating Load   
y2: Cooling Load

The attribute “Orientation” (denoted by [X6] in the excel file) has been used to perform Boxplot for this Energy Efficiency dataset.

The first quartile (Q1) for the above boxplot is at 2.75, the second quartile (Q2) which is also the median is at position 3.5 and the third quartile (Q3) is at 4.25. The IQR (interquartile range) which is the difference from Q3 to Q1 comes to 1.5. The minimum and the maximum value is 1.99 and 4.99 respectively for the plotted boxplot.

**OUTPUT:**

