

Name EGB103 Assignment 2

Description

Rubric Detail

Levels of Achievement				
Criteria	Poor (grade 0-3)	Fair (grade 4)	Good (grade 5-6)	Excellent (grade 7)
Data cleaned, read, parsed and indexed.	<b>0 to 0 points</b> Did not read data into a Pandas Data Frame.	<b>2 to 2 points</b> Data read successfully into a Pandas Data Frame	<b>3 to 3 points</b> Failed to clean, parse dates or select appropriate index.	<b>4 to 4 points</b> Data is cleaned, read into a Pandas data frame, with Dates parsed and an appropriate index column selected.
Column computed for Kilowatts for Refrigeration (kWR)	<b>0 to 0 points</b> No attempt to compute kWR.	<b>1 to 1 points</b> kWR is computed but not added as a column.	<b>2 to 2 points</b> Column added but incorrect formula	<b>3 to 3 points</b> kWR column is added successfully using the correct formula.
Column computed for Coefficient of Performance (COP)	<b>0 to 0 points</b> No attempt to compute COP.	<b>1 to 1 points</b> COP is computed but not added as a column.	<b>2 to 2 points</b> Column added but incorrect formula	<b>3 to 3 points</b> COP column is added successfully using the correct formula.
Group by used to plot kWE, kWR, COP and %operating vs hour of day, day of week and month of year	<b>0 to 2 points</b> Some relevant data plotted (not necessarily using group by).	<b>3 to 3 points</b> Group by used correctly to show at least 2 plots with different x-axis. e.g. COP vs hour of day and COP vs month of year.	<b>4 to 5 points</b> Group by used correctly to show 3 to 11 different plot combinations.	<b>6 to 6 points</b> Group by used correctly to plot all 12 combinations of kWE, kWR, COP and %operating vs hour of day, day of week and month of year

## Levels of Achievement

Criteria	Poor (grade 0-3)	Fair (grade 4)	Good (grade 5-6)	Excellent (grade 7)
<b>Filtering used to restrict attention to when chiller is operating and just birthday</b>	<b>0 to 0 points</b> No use of Pandas row filtering.	<b>1 to 1 points</b> Some Pandas filtering used to restrict rows based on conditions.	<b>0 to 0 points</b>	<b>2 to 2 points</b> Filtering used correctly to both restrict attention to when chiller is actually operating and to just the date of the student's birthday (consistent with QUT student data).
<b>Binning used to plot Coefficient of Performance (COP) vs Kilowatts of Refrigeration (kWR)</b>	<b>0 to 0 points</b> No attempt to plot COP vs kWR	<b>1 to 1 points</b> Some attempt to plot COP vs kWR but not using binning or group by correctly.	<b>0 to 0 points</b>	<b>2 to 2 points</b> Binning of kWR is used together with group by to correctly plot COP vs kWR.
<b>Markdown to summarize conclusions for each plot</b>	<b>0 to 0 points</b> No commentary provided for any plots.	<b>1 to 1 points</b> Some markdown provided with most plots, but missing or incorrect conclusions/observations.	<b>0 to 0 points</b>	<b>2 to 2 points</b> Each plot is accompanied by markdown that provides a brief, but well reasoned commentary on the data that highlights interesting aspects of the results.
<b>Plot titling, labelling and figure sizing</b>	<b>0 to 0 points</b> No titles or axis labels on any plots/figures.	<b>1 to 1 points</b> Some problems with titles and labels	<b>0 to 0 points</b>	<b>2 to 2 points</b> All figures have a title, both axis are labelled with a name (and units where applicable) and data labels are easily understandable, e.g. day of week is shown as 'Tuesday', not day 3 of 7 and Figures are sized large enough to make them easy to read.
<b>Well chosen identifier names</b>	<b>0 to 0 points</b> Most function and variable names use short names that provide little if any understanding of their purpose.	<b>1 to 1 points</b> Most function and variables are reasonably named, providing some understanding of their purpose.	<b>0 to 0 points</b>	<b>2 to 2 points</b> All variable and function names are well chosen meaningful names that greatly aids the readability of the code.

## Levels of Achievement

Criteria	Poor (grade 0-3)	Fair (grade 4)	Good (grade 5-6)	Excellent (grade 7)
<b>Clear simple code</b>	<b>0 to 0 points</b> Code unnecessarily complex and very hard to understand.	<b>1 to 1 points</b> Some parts are unnecessarily complex and hard to understand.	<b>0 to 0 points</b>	<b>2 to 2 points</b> All Python code is written in a clear and simple fashion that is easy to read and understand.
<b>Don't repeat yourself</b>	<b>0 to 0 points</b> No use of functions to avoid replication.	<b>1 to 1 points</b> Some attempt to use functions to avoid replication, but still considerable near identical code repeated in many places	<b>0 to 0 points</b>	<b>2 to 2 points</b> Python functions used to avoid repeating the same code pattern.

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