A close up of a sign

Description automatically generated

Shiny Dashboard

*Homework 4*

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# Question A

In part a, we prepared a homepage which is illustrated below in Figure.1. We put some rules for the date filter which are minimum and maximum dates as 2017-01-01, 2019-12-29. In sidebar, user can filter data and see the date, hour, consumption and average temperature values over the filtered range.

A screenshot of a cell phone

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Figure.1

# Question B

In part b, the sidebar is same as the part a, user can filter date and see average consumption and temperature values based on 24-hour. Date range is limited with the minimum (2017-01-01) and maximum (2019-12-29) values. As user chooses different date ranges, 2 plots are changed simultaneously. The plot on the upper part shows average hourly consumption over the filtered time period. Average consumption values are on the y-axis, while hour values are on the x-axis. The other plot which is below shows that the average hourly temperature for multiple cities (T\_1, T\_2, T\_3...). Also, in the plot, average temperature values are on y-axis and hour values are on the x-axis.

A screenshot of a social media post

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Figure.2

# Question C (Bonus)

In part c, left side of the page is as same as the other parts but date range are limited with the minimum (2017-01-01) and maximum (2019-12-27) values. In this part, we used the data which are 2-days and 7-days before to predict the consumption values. In the question, we are asked to show forecasted hourly consumption values but there is a rule. The rule says that if user chooses the following date range, 2019-05-07 and 2019-07-09, the graph shows the hourly consumption for 2019-07-11. The Forecasted Consumption Value graph is only affected by the end date of the date range.

A screenshot of a cell phone

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Figure.3