Pre-class Learning Activities for Session 2

To Students:

- Complete the following learning activities (listed below) before class.
- References are optional and not meant to be read from first page to last. Refer if necessary.
- You may be asked to volunteer/present your work for class participation points.
- If you presented your work in class, remember to email your work to instructor after class.
- You may be asked to provide comments/add-ons to work presented by students.

Learning Activities:

1. Read the Session 2 Slides.
2. Complete (as much as you can) Activities 1, 2 and 3 in the slides.

Additional Learning Activities if you choose to use Python instead of R[1]:

1. Read https://towardsdatascience.com/simple-and-multiple-linear-regression-in-python-c928425168f9
2. Read https://towardsdatascience.com/building-a-logistic-regression-in-python-step-by-step-becd4d56c9c8
3. Read https://www.datacamp.com/community/tutorials/decision-tree-classification-python

R References:

- Linear Reg: https://www.rdocumentation.org/packages/stats/versions/3.6.2/topics/lm
- Logistic Reg: https://www.rdocumentation.org/packages/stats/versions/3.6.2/topics/glm
- CART: https://www.rdocumentation.org/packages/rpart/versions/4.1-15/topics/rpart

Python References:

- Linear Reg: https://scikit-learn.org/stable/modules/generated/sklearn.linear_model.LinearRegression.html
- Logistic Reg: https://scikit-learn.org/stable/modules/generated/sklearn.linear_model.LogisticRegression.html
- reshape function: https://note.nkmk.me/en/python-numpy-reshape-usage/
- CART: https://scikit-learn.org/stable/modules/tree.html#
- CART Pruning: https://scikit-learn.org/stable/auto_examples/tree/plot_cost_complexity_pruning.html#

[1] If you could not access these online articles, the PDF document version are also available in the Ref folder of the S2 course materials folder in NTULearn Main Site. Note that R readings are not listed as they were taught in BC2406 [the pre-req for BC2407]. Refer to BC2406 units 6, 7, 8 & 9.