# Pre-class Learning Activities for Session 2

#### Instructions:

- Complete the following listed learning activities before class.
- Post your questions in NTULearn Class Site > Discussion Board > S2 Review of Basic Analytics and Software.
- Good questions will be awarded additional class participation points.
- Post your answers to questions raised in the Discussion Board.
- Good answers will be awarded additional class participation points.

# Learning Activities<sup>1</sup>:

- 1. Read <a href="https://towardsdatascience.com/simple-and-multiple-linear-regression-in-python-c928425168f9">https://towardsdatascience.com/simple-and-multiple-linear-regression-in-python-c928425168f9</a>
- 2. Read <a href="https://towardsdatascience.com/building-a-logistic-regression-in-python-step-by-step-becd4d56c9c8">https://towardsdatascience.com/building-a-logistic-regression-in-python-step-by-step-becd4d56c9c8</a>
- 3. Read https://www.datacamp.com/community/tutorials/decision-tree-classification-python
- 4. Post your questions (if any) about the concepts, business application or code in NTULearn Class Site > Discussion Board. [You may post questions before/after your class session.]

### 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: <a href="https://www.rdocumentation.org/packages/rpart/versions/4.1-15/topics/rpart">https://www.rdocumentation.org/packages/rpart/versions/4.1-15/topics/rpart</a>

## Python References:

- Linear Reg: <a href="https://scikit-learn.org/stable/modules/generated/sklearn.linear\_model.LinearRegression.html">https://scikit-learn.org/stable/modules/generated/sklearn.linear\_model.LinearRegression.html</a>
- Logistic Reg: <a href="https://scikit-learn.org/stable/modules/generated/sklearn.linear\_model.LogisticRegression.html">https://scikit-learn.org/stable/modules/generated/sklearn.linear\_model.LogisticRegression.html</a>
- reshape function: https://note.nkmk.me/en/python-numpy-reshape-usage/
- CART: https://scikit-learn.org/stable/modules/tree.html#
- CART Pruning: <a href="https://scikit-learn.org/stable/auto-examples/tree/plot-cost-complexity-pruning.html#">https://scikit-learn.org/stable/auto-examples/tree/plot-cost-complexity-pruning.html#</a>

<sup>&</sup>lt;sup>1</sup> 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 the Rcode and concepts and examples were taught in BC2406 [the pre-req for BC2407]. Refer to BC2406 units 6, 7, 8 & 9.