National Tsing Hua University

Industrial Engineering and Engineering Management

IEEM6124 Spring 2017

Data Mining

Homework IV

Due Date: Wednesday, May 27th, 2017

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Name：湯忠憲

**Notes: This homework will be worked in individual.**

**Your report should be upload it to iLMS.**

**Written in Chinese or English are both permit.**

1. [Ch7 Question 2] Textbook page 309
2. 從訓練資料中可以發現，p(晴) = 0.4、p(陰) = 0.3、p(雨) = 0.3。所以在沒有任何其他資訊時，可用上述機率來描述未來天氣狀況。
3. 在已知張三帶傘出門的情況下，p(晴|張三帶傘) = 0、p(陰|張三帶傘) = 0.5、p(雨|張三帶傘) = 0.5
4. 在已知李四帶傘出門的情況下，p(晴|李四帶傘) = 0、p(陰|李四帶傘) = 0.25、p(雨|李四帶傘) = 0.75
5. 在已知王五帶傘出門的情況下，p(晴|王五帶傘) = 0.4、p(陰|王五帶傘) = 0.2、p(雨|王五帶傘) = 0.4
6. [Ch7 Question 4] Textbook page 310

Info(D) =

Info(張三帶傘) =

Info(李四帶傘) =

Info(王五帶傘)

貢獻度 Gain

Gain(張三帶傘) = 0.9709

Gain(李四帶傘) = 0.695412

Gain(王五) = 0.1203