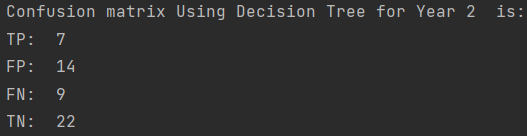
**Related file: XU\_YUHAN\_Assign\_11\_tree.py**

**Assignment 11 Decision Tree**

## **Questions: 1. implement a decision tree and compute its accuracy for year 2**

## 

## **2. compute the confusion matrix for year 2**



| TP | 7 |
| --- | --- |
| FP | 14 |
| FN | 9 |
| TN | 22 |

## **3. what is true positive rate and true negative rate for year 2?**

## 

| TPR | 0.7097 |
| --- | --- |
| TNR | 0.3333 |

## 

## **4. implement a trading strategy based on your labels for year 2 and compare the performance with the ”buy-and-hold” strategy. Which strategy results in a larger amount at the end of the year?**

Because the second year is a big drop compared to the first year,it is impossible to hold for a long time.

Therefore, the strategies we can take are simple, all short-term actions. Buy when it falls compared to the previous day,

and sell when it rises compared to the previous day,so as to maximize the benefits.

Compared to buy-and-hold, my strategy will result in a larger amount at the end of the year.