//Play Tennis CSV Data read into df dataframe

Day outlook temp humidity windy play

0 D1 sunny hot high weak no

1 D2 sunny hot high strong no

2 D3 overcast hot high weak yes

3 D4 rainy mild high weak yes

4 D5 rainy cool normal weak yes

5 D6 rainy cool normal strong no

6 D7 overcast cool normal strong yes

7 D8 sunny mild high weak no

8 D9 sunny cool normal weak yes

9 D10 rainy mild normal weak yes

10 D11 sunny mild normal strong yes

11 D12 overcast mild high strong yes

12 D13 overcast hot normal weak yes

13 D14 rainy mild high strong no

//X\_test CSV data for prediction input of Day 1 and Day2

prediction input(sunny, hot, normal, weak) Day 2: (overcast, cool, normal, strong)

Day outlook temp humidity windy

0 D1 sunny hot normal weak

1 D2 overcast cool normal strong

//df and X\_test data values labelled as numerical values using label encoder

Day outlook temp humidity windy outlook\_ temp\_ humidity\_ windy\_

0 D1 sunny hot normal weak 1 1 0 1

1 D2 overcast cool normal strong 0 0 0 0

outlook\_ temp\_ humidity\_ windy\_

0 1 1 0 1

1 0 0 0 0

outlook\_ temp\_ humidity\_ windy\_

0 2 1 0 1

1 2 1 0 0

2 0 1 0 1

3 1 2 0 1

4 1 0 1 1

5 1 0 1 0

6 0 0 1 0

7 2 2 0 1

8 2 0 1 1

9 1 2 1 1

10 2 2 1 0

11 0 2 0 0

12 0 1 1 1

13 1 2 0 0

0 0

1 0

2 1

3 1

4 1

5 0

6 1

7 0

8 1

9 1

10 1

11 1

12 1

13 0

Name: play\_, dtype: int32

// Prediction outputs for Day1 and Day2

prediction output Day1

outlook sunny

temp hot

humidity normal

windy weak

Name: 0, dtype: object

play :Yes

prediction output Day2

outlook overcast

temp cool

humidity normal

windy strong

Name: 1, dtype: object

play :No

// Out of 14 samples test set created with 0.2 size i.e. for 12 samples

//prediction accuracy for test set of 0.2 size

Accuracy is :50.0

//Decision Tree Created using pydotplus and GraphViz

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