

Output Assignment 32 : fake news prediction

<class 'pandas.core.frame.DataFrame'>

RangeIndex: 44898 entries, 0 to 44897

Data columns (total 5 columns):

#	Column	Non-Null Count	Dtype
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-----	-------	-------	-------

0	title	44898 non-null	object
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1	text	44898 non-null	object
---	------	----------------	--------

2	subject	44898 non-null	object
---	---------	----------------	--------

3	date	44898 non-null	object
---	------	----------------	--------

4	label	44898 non-null	int64
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dtypes: int64(1), object(4)

memory usage: 1.7+ MB

None

tf-idf is in process:

training is in process

voting classifier in process :

accuracy individual logistic regrssion : 98.83073496659243

accuracy individual decision tree : 99.67706013363029

accuracy hard voting : 99.32071269487751

accuracy soft voting : 99.67706013363029

confusion matrix individual logistic regrssion : [[4628 68]

[37 4247]]

confusion matrix individual decision tree : [[4688 8]

[21 4263]]

Confusion Matrix hard voting :

[[4693 3]

[58 4226]]

Confusion Matrix soft voting :

[[4688 8]

[21 4263]]

classification report individual logistic regrssion :

precision recall f1-score support

0 0.99 0.99 0.99 4696

1 0.98 0.99 0.99 4284

accuracy 0.99 8980

macro avg 0.99 0.99 0.99 8980

weighted avg 0.99 0.99 0.99 8980

classification report individual decision tree :

precision recall f1-score support

0 1.00 1.00 1.00 4696

1 1.00 1.00 1.00 4284

accuracy 1.00 8980

macro avg 1.00 1.00 1.00 8980

weighted avg 1.00 1.00 1.00 8980

Classification Report hard voting :

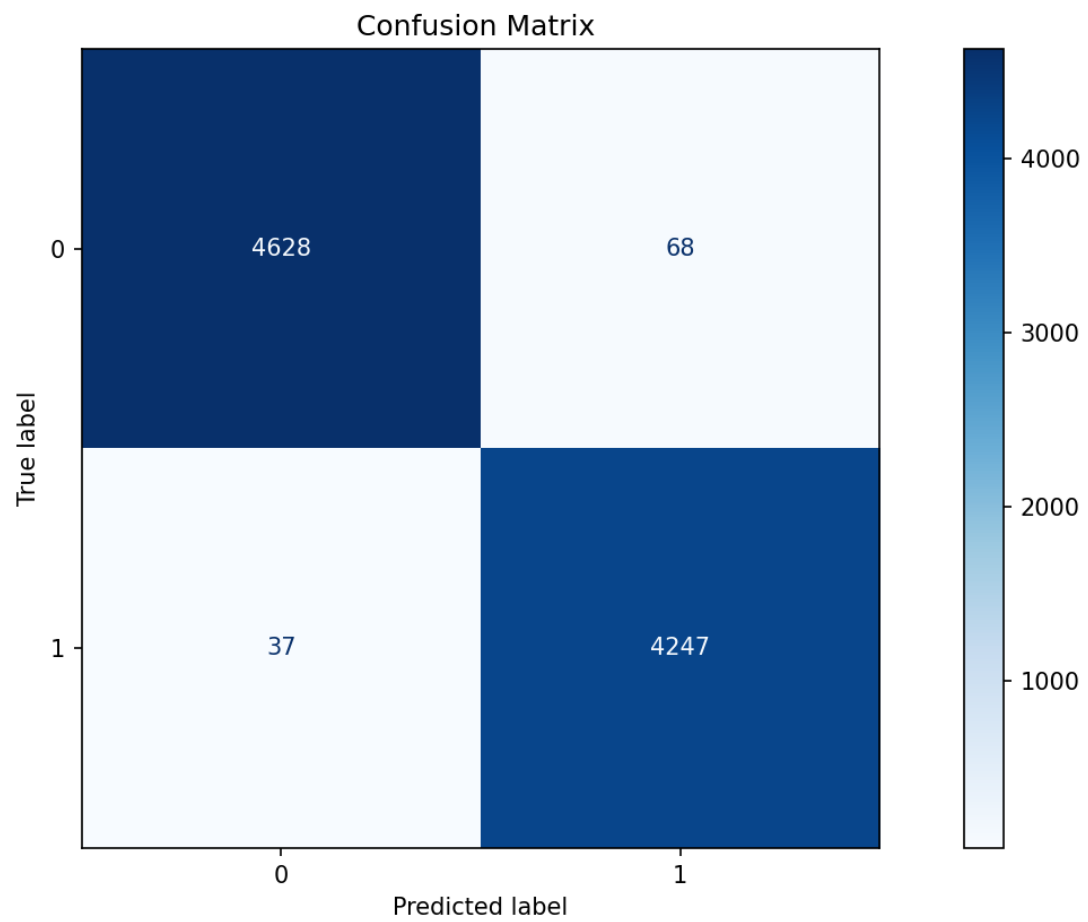
	precision	recall	f1-score	support
0	0.99	1.00	0.99	4696
1	1.00	0.99	0.99	4284
accuracy		0.99		8980
macro avg	0.99	0.99	0.99	8980
weighted avg	0.99	0.99	0.99	8980

Classification Report soft voting :

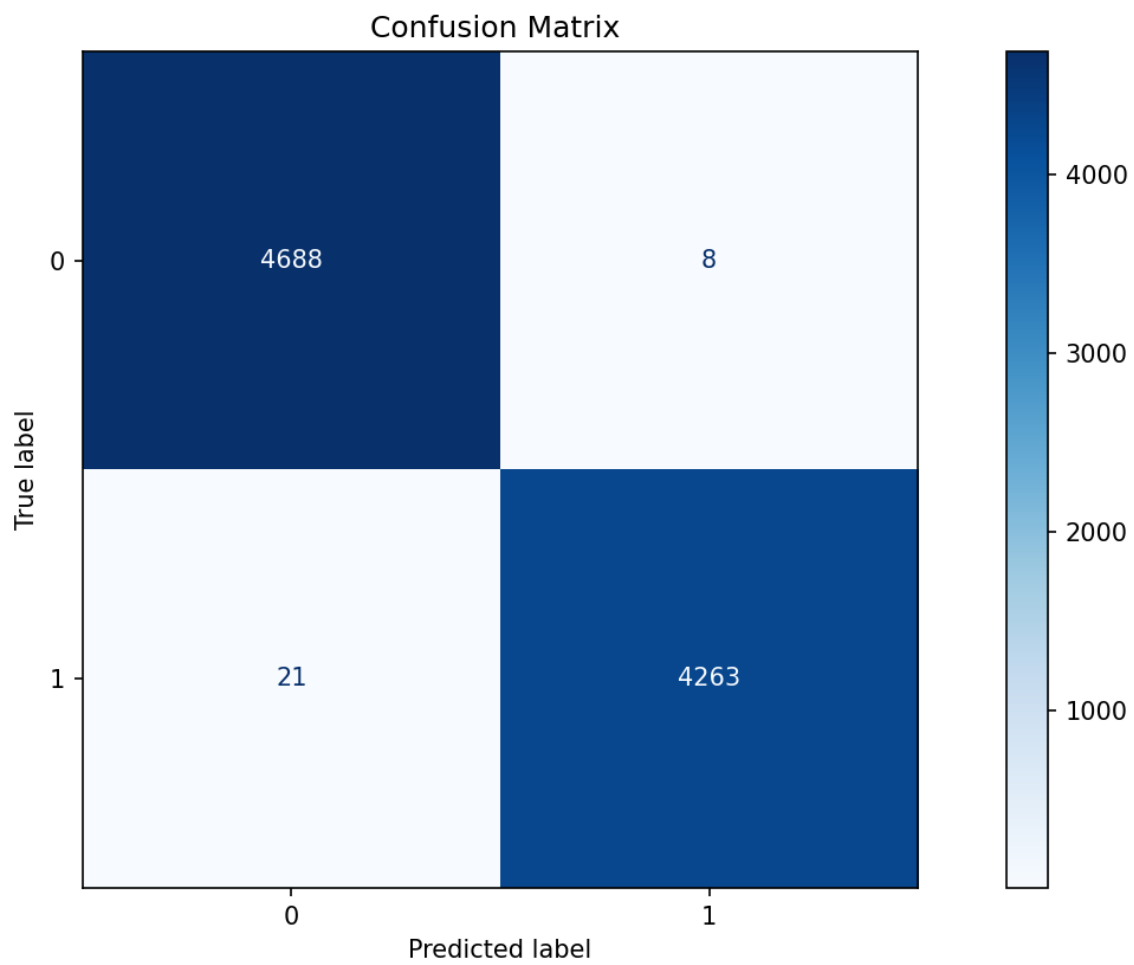
	precision	recall	f1-score	support
0	1.00	1.00	1.00	4696
1	1.00	1.00	1.00	4284
accuracy		1.00		8980
macro avg	1.00	1.00	1.00	8980
weighted avg	1.00	1.00	1.00	8980

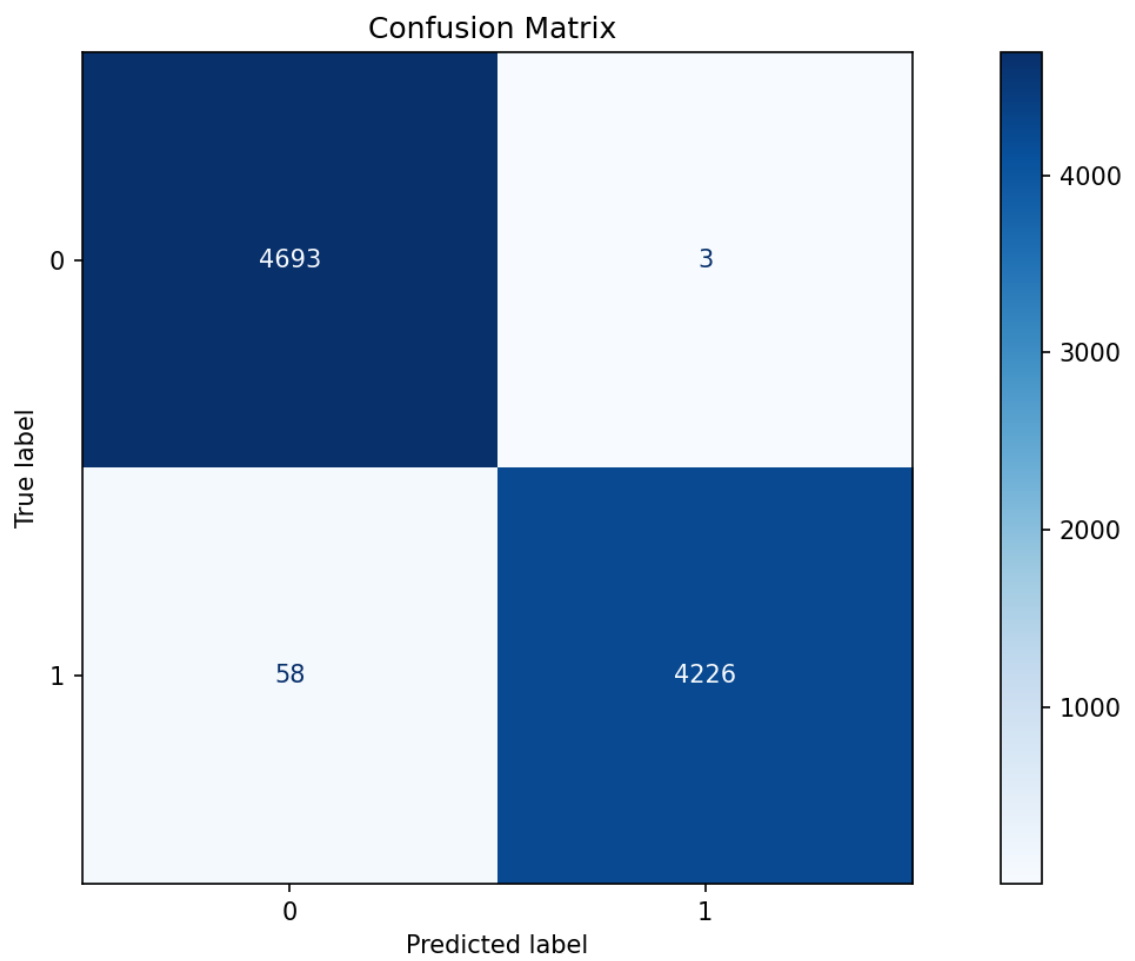
PS C:\Users\Aniket\OneDrive\Desktop\marvellousinfo\Assignments\Assignment_32>

Confusion matrix = LOGISTIC REGRESSION

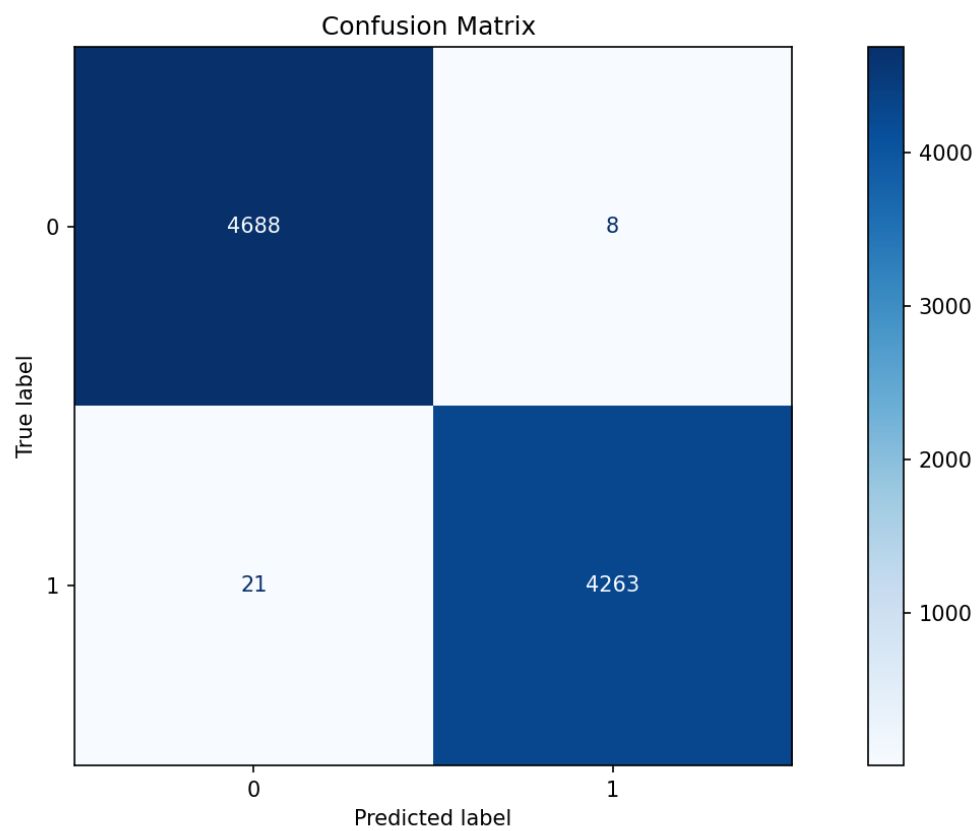


Confusion matrix=DECISION TREE





Confusion matix = hard voting



Confusion matrix = soft voting