

GELENEKSEL YÖNTEMLER

BASIC FALSE

Feature	Num Attributes	Classifier	Test F1-Score
bow + tf-idf	5270	MNB	0,605022925
bow + tf-idf	5270	LR	0,57116076
bow + tf-idf	5270	SVM	0,565058693
bow + tf-idf	5270	DT	0,545357412
bow + tf-idf	5270	KNN	0,572598006
bow + tf-idf	5270	RF	0,544114637
bow-tf	5270	MNB	0,5955735
bow-tf	5270	LR	0,562815395
bow-tf	5270	SVM	0,562488609
bow-tf	5270	DT	0,553624138
bow-tf	5270	KNN	0,415428442
bow-tf	5270	RF	0,557121779
bow + binary	5270	MNB	0,592034179
bow + binary	5270	LR	0,560150192
bow + binary	5270	SVM	0,562605163
bow + binary	5270	DT	0,563079485
bow + binary	5270	KNN	0,418635296
bow + binary	5270	RF	0,560794424
3-grams + binary	12581	MNB	0,584086645

3-grams + binary	12581	LR	0,571518099
3-grams + binary	12581	SVM	0,55828292
3-grams + binary	12581	DT	0,523195563
3-grams + binary	12581	KNN	0,546119712
3-grams + binary	12581	RF	0,557869346
3-grams + tf	12581	MNB	0,584357691
3-grams + tf	12581	LR	0,569681189
3-grams + tf	12581	SVM	0,556536696
3-grams + tf	12581	DT	0,513646342
3-grams + tf	12581	KNN	0,637413113
3-grams + tf	12581	RF	0,565611375
3-grams + tf-idf	12581	MNB	0,584889549
3-grams + tf-idf	12581	LR	0,586936141
3-grams + tf-idf	12581	SVM	0,578441041
3-grams + tf-idf	12581	DT	0,515001526
3-grams + tf-idf	12581	KNN	0,574362583
3-grams + tf-idf	12581	RF	0,566265791

BASIC TRUE

Feature	Num Attributes	Classifier	Test F1-Score
bow + tf-idf	5971	MNB	0,622507752
bow + tf-idf	5971	LR	0,594265618
bow + tf-idf	5971	SVM	0,592705716
bow + tf-idf	5971	DT	0,526811303
bow + tf-idf	5971	KNN	0,576258579
bow + tf-idf	5971	RF	0,566507274
bow-tf	5971	MNB	0,615594311
bow-tf	5971	LR	0,581720831
bow-tf	5971	SVM	0,569228397
bow-tf	5971	DT	0,524420788
bow-tf	5971	KNN	0,466959056
bow-tf	5971	RF	0,561456401
bow + binary	5971	MNB	0,617043606
bow + binary	5971	LR	0,585722411
bow + binary	5971	SVM	0,568579077
bow + binary	5971	DT	0,528915521
bow + binary	5971	KNN	0,482279799
bow + binary	5971	RF	0,564443548
3-grams + binary	6688	MNB	0,603879995
3-grams + binary	6688	LR	0,56272703
3-grams + binary	6688	SVM	0,545534111

3-grams + binary	6688	DT	0,519727185
3-grams + binary	6688	KNN	0,606970127
3-grams + binary	6688	RF	0,55959532
3-grams + tf	6688	MNB	0,598371332
3-grams + tf	6688	LR	0,573636293
3-grams + tf	6688	SVM	0,559401672
3-grams + tf	6688	DT	0,527603198
3-grams + tf	6688	KNN	0,618432872
3-grams + tf	6688	RF	0,561651813
3-grams + tf-idf	6688	MNB	0,607869271
3-grams + tf-idf	6688	LR	0,588716599
3-grams + tf-idf	6688	SVM	0,583305906
3-grams + tf-idf	6688	DT	0,516954704
3-grams + tf-idf	6688	KNN	0,574294869
3-grams + tf-idf	6688	RF	0,565598556

WORD EMBEDDİNG - BASIC FALSE

MODEL: glove

Kümeleme Alg.	Classifier	2	3	4	5	6	7	8	9	10	En İyi [11-30]
Agglomerative	DT	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449
	KNN	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664
	LR	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532
	MNB	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267
	RF	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
	SVM	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400
Birch	DT	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449
	KNN	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664
	LR	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532
	MNB	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267
	RF	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
	SVM	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400
Hierarchical	DT	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449	0.449
	KNN	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664	0.664
	LR	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532	0.532
	MNB	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267	0.267
	RF	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
	SVM	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400
KMEANS	DT	0.443	0.459	0.460	0.485	0.489	0.475	0.481	0.490	0.488	0.521
	KNN	0.639	0.628	0.595	0.597	0.587	0.569	0.581	0.575	0.558	0.554
	LR	0.522	0.500	0.495	0.488	0.520	0.493	0.517	0.508	0.526	0.560
	MNB	0.517	0.502	0.503	0.492	0.525	0.492	0.521	0.508	0.530	0.564
	RF	0.460	0.484	0.490	0.509	0.525	0.502	0.517	0.515	0.503	0.534

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MODEL: fasttext

[illegible]

[illegible]

MODEL: wor2vec

[illegible]

[illegible]

WORD EMBEDDİNG - BASIC TRUE

MODEL: glove

Kümeleme Alg.	Classifier	2	3	4	5	6	7	8	9	10	En İyi [11-30]
Agglomerative	DT	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432
	KNN	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665
	LR	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
	SVM	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513
Birch	DT	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432
	KNN	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665
	LR	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
	SVM	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513
Hierarchical	DT	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432	0.432
	KNN	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665	0.665
	LR	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525	0.525
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441	0.441
	SVM	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513	0.513
KMEANS	DT	0.465	0.493	0.472	0.483	0.490	0.498	0.497	0.506	0.524	0.543
	KNN	0.644	0.596	0.585	0.565	0.554	0.561	0.535	0.544	0.536	0.566
	LR	0.518	0.527	0.506	0.504	0.525	0.535	0.515	0.549	0.550	0.591
	MNB	0.514	0.520	0.510	0.501	0.517	0.539	0.504	0.550	0.561	0.592
	RF	0.481	0.524	0.501	0.517	0.514	0.509	0.511	0.531	0.527	0.564

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MODEL: wor2vec

[illegible]

[illegible]

BERT MODELLER - BASIC FALSE

MODEL: bert

[illegible]

[illegible]

MODEL: MarianMT

[illegible]

[illegible]

MODEL: t5

[illegible]

[illegible]

MODEL: CamemBERT

[illegible]

	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551

MODEL: ctrl

Kümeleme Alg.	Classifier	2	3	4	5	6	7	8	9	10	En İyi [11-30]
Agglomerative	DT	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551
Birch	DT	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551
Hierarchical	DT	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551
KMEANS	DT	0.451	0.448	0.447	0.454	0.462	0.484	0.493	0.513	0.492	0.530
	KNN	0.657	0.638	0.594	0.590	0.574	0.577	0.535	0.537	0.537	0.547

[illegible]

MODEL: xlnet

[illegible]

[illegible]

MODEL: albert

[illegible]

[illegible]

MODEL: ernie

[illegible]

	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551

MODEL: flaubert

Kümeleme Alg.	Classfier	2	3	4	5	6	7	8	9	10	En İyi [11-30]
Agglomerative	DT	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551
Birch	DT	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551
Hierarchical	DT	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453	0.453
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495	0.495
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411	0.411
	SVM	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551	0.551
KMEANS	DT	0.480	0.490	0.473	0.486	0.497	0.489	0.503	0.497	0.496	0.517
	KNN	0.645	0.604	0.576	0.552	0.544	0.525	0.538	0.516	0.521	0.535

[illegible]

MODEL: roberta

[illegible]

[illegible]

BERT MODELLER - BASIC TRUE

MODEL: bert

Kümeleme Alg.	Classifier	2	3	4	5	6	7	8	9	10	En İyi [11-30]
Agglomerative	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
Birch	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
Hierarchical	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
KMEANS	DT	0.461	0.460	0.470	0.464	0.506	0.486	0.501	0.498	0.520	0.520
	KNN	0.650	0.611	0.595	0.582	0.552	0.548	0.554	0.542	0.559	0.553
	LR	0.516	0.545	0.538	0.537	0.552	0.552	0.549	0.558	0.562	0.576
	MNB	0.524	0.537	0.529	0.534	0.552	0.554	0.551	0.556	0.553	0.572
	RF	0.473	0.487	0.503	0.516	0.524	0.500	0.514	0.495	0.516	0.536

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MODEL: t5

[illegible]

[illegible]

MODEL: CamemBERT

[illegible]

[illegible]

MODEL: ctrl

[illegible]

	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491

MODEL: reformer

Kümeleme Alg.	Classifier	2	3	4	5	6	7	8	9	10	En İyi [11-30]
Agglomerative	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
Birch	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
Hierarchical	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
KMEANS	DT	0.485	0.454	0.454	0.470	0.491	0.498	0.508	0.500	0.513	0.515
	KNN	0.634	0.597	0.578	0.555	0.561	0.549	0.563	0.538	0.537	0.548

[illegible]

MODEL: albert

[illegible]

[illegible]

MODEL: flaubert

[illegible]

	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491

MODEL: electra

Kümeleme Alg.	Classifier	2	3	4	5	6	7	8	9	10	En İyi [11-30]
Agglomerative	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
Birch	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
Hierarchical	DT	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425	0.425
	KNN	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666	0.666
	LR	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531	0.531
	MNB	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	RF	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
	SVM	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491	0.491
KMEANS	DT	0.466	0.476	0.462	0.474	0.492	0.510	0.497	0.508	0.507	0.517
	KNN	0.635	0.598	0.551	0.555	0.527	0.522	0.517	0.531	0.521	0.529

[illegible]