weighted macro macro avg F1weighted weighted macro avg F1-Accuracy avg_precision score avg preision avg Recall avg recall score **SVM** SVM_linear 0.85 0.66 0.56 0.59 0.83 0.85 0.84 0.82 0.65 0.42 0.45 0.8 0.82 0.77 SVM_poly SVM_liner+StopWord 0.85 0.65 0.54 0.58 0.83 0.85 0.84 SVM_poly+StopWord 0.83 0.69 0.4 0.42 0.8 0.77 0.83 SVM_linear(TF_IDF) 0.87 0.73 0.52 0.54 0.84 0.87 0.84 SVM_linear(TF_IDF+stopword) 0.87 0.72 0.52 0.54 0.84 0.87 0.83 SVM_linear(stemmed_count_vect) 0.85 0.66 0.53 0.57 0.83 0.85 0.83 SVM_linear(TF_IDF+stopword+normalization) 0.87 0.72 0.51 0.53 0.84 0.87 0.83 SVM_linear(normalization+stemmed_count_vect) 0.86 0.72 0.5 0.52 0.84 0.86 0.83 SVM_linear(POS tagging) 0.85 0.65 0.56 0.59 0.83 0.85 0.84 SVM_linear(POS tagging + stopword) 0.85 0.65 0.55 0.58 0.83 0.85 0.84 SVM_linear(word2vec) 0.85 0.53 0.48 0.49 0.79 0.85 0.81 **KNN** 0.54 KNN 3 0.81 0.45 0.45 0.77 0.81 0.78 0.82 KNN 3+ StopWord 0.58 0.45 0.45 0.78 0.82 0.79 KNN_3+ StopWord+TF_IDF transformer 0.47 0.5 0.5 0.43 0.31 0.79 0.56 0.27 KNN_3(TF-IDF) 0.41 0.46 0.42 0.8 0.41 0.47 KNN_3(TF_IDF + stopword) 0.5 0.43 0.43 0.31 0.78 0.5 0.56 0.83 0.47 KNN_3 (stemmed countvector+stopword) 0.58 0.47 0.79 0.83 0.8 KNN_3+ StopWord+normalization 0.69 0.51 0.47 0.4 0.78 0.69 0.71 KNN_3 (stemmed countvector+stopword+normal 0.72 0.52 0.5 0.42 0.8 0.72 0.73 SVM_linear(POS tagging) 0.81 0.54 0.44 0.46 0.77 0.81 0.78 SVM_linear(POS tagging + stopword) 0.81 0.52 0.44 0.45 0.76 0.81 0.78 KNN3(word2vec) 0.8 0.57 0.57 0.57 0.82 0.8 0.81 LR LR 0.87 0.7 0.53 0.56 0.84 0.87 0.84 0.67 0.56 0.86 0.84 LR+stopwords 0.86 0.6 0.83 LR+stopwords+TF_idf transformer 0.87 0.69 0.53 0.56 0.84 0.87 0.84 LR(TF_IDF) 0.86 0.69 0.53 0.57 0.84 0.86 0.84 LR(TF_IDF+stopwords) 0.72 0.87 0.53 0.57 0.84 0.87 0.84 LR(TF_IDF+stopwords+TF_IDF transformer) 0.86 0.7 0.52 0.56 0.84 0.86 0.84 0.69 LR(stopword+stemming) 0.86 0.55 0.6 0.84 0.86 0.84 LR (stopword+normalization) 0.86 0.71 0.52 0.55 0.83 0.86 0.83 LR (stopword+ steeming+normalization) 0.86 0.68 0.53 0.55 0.83 0.86 0.83 LR(POS tagging) 0.86 0.7 0.53 0.58 0.84 0.86 0.84 LR(POS tagging + stopword) 0.86 0.67 0.57 0.86 0.6 0.84 0.85 LR(word2vec) 0.85 0.64 0.49 0.5 0.81 0.85 0.82 NB 0.86 0.64 0.56 0.59 0.83 0.86 0.84 MultinomialNB MultinomialNB+stopword removel 0.86 0.65 0.54 0.58 0.83 0.86 0.84 MultinomialNB+stopword +TF_IDF transformer 0.84 0.57 0.42 0.43 0.79 0.84 0.79 MultinomialNB(TF DF) 0.85 0.77 0.47 0.49 0.84 0.85 0.81 MultinomialNB(TF_DF +stopword) 0.85 0.77 0.49 0.46 0.84 0.85 0.81 MultinomialNB+stopword +stemming 0.7 0.5 0.86 0.48 0.83 0.86 0.83 MultinomialNB+stopword+normalization0.86 0.71 0.47 0.49 0.83 0.86 0.82 MultinomialNB+stopword +stemming + normaliz 0.86 0.68 0.47 0.5 0.82 0.86 0.82 MultinomialNB(POS tagging) 0.85 0.63 0.56 0.59 0.83 0.85 0.84 MultinomialNB(POS tagging+stopword) 0.85 0.64 0.54 0.57 0.82 0.85 0.83 MultinomialNB(word2vec) 0.27 0.81 0.81 0.33 0.3 0.66 0.73

Basic supervised ML

	FNN	0.81	0.27	0.33	0.3	0.65	0.81	0.72
	CNN	0.85	0.39	0.38	0.38	0.79	0.85	0.82
Deep Learing	g LSTM	0.82	0.27	0.33	0.3	0.66	0.82	0.73
	Bi_LSTM	0.87	0.87	0.87	0.87	0.85	0.87	0.84
	RNN	0.81	0.43	0.43	0.43	0.74	0.81	0.77
	GRU	0.81	0.43	0.34	0.31	0.71	0.81	0.73
TL 2-epochs	Bert_base_uncased	0.88	0.72	0.59	0.63	0.86	0.88	0.86
	DistilBert-base-uncased	0.88	0.73	0.58	0.62	0.85	0.88	0.86
	AlBert	0.88	0.73	0.58	0.62	0.85	0.88	0.86
	Roberta	0.89	0.75	0.62	0.66	0.87	0.89	0.87
	Robart-large	0.89	0.76	0.64	0.68	0.88	0.89	0.88
TL-4 epochs	Bert_base_uncased	0.88	0.7	0.61	0.64	0.86	0.88	0.86
	DistilBert-base-uncased	0.87	0.71	0.61	0.64	0.86	0.87	0.86
	AlBert	0.88	0.72	0.63	0.67	0.87	0.88	0.87
	Roberta	0.89	0.74	0.64	0.67	0.87	0.89	0.88
	Robart-large	0.9	0.75	0.66	0.7	0.88	0.9	0.89
TL-8 epochs	Bert_base_uncased	0.86	0.67	0.61	0.64	0.85	0.86	0.85
	DistilBert-base-uncased	0.86	0.66	0.61	0.63	0.85	0.86	0.85
	AlBert	0.87	0.67	0.65	0.66	0.86	0.87	0.86
	Roberta	0.89	0.73	0.66	0.69	0.87	0.89	0.88
	Robart-large	Not defined due to resource constraints						
	Bert_base_uncased	0.86	0.68	0.61	0.64	0.85	0.86	0.85
	DistilBert-base-uncased	0.86	0.68	0.61	0.64	0.85	0.86	0.85
TL-16 epochs AlBert		0.87	0.68	0.64	0.66	0.86	0.87	0.87
	Roberta-base	0.89	0.73	0.66	0.69	0.88	0.89	0.88
	Robart-large	Not defined due to resource constraints						