

Amara & Haziqa Assignment 1

Question 1:

Binary Classification

Feature Extration Method	Classifier	Results
BOW	SVM	<pre> Results of SVM CLASSIFIER on BOW precision recall f1-score support 0 0.84 0.77 0.80 933 1 0.25 0.33 0.28 212 accuracy macro avg 0.54 0.55 0.54 1145 weighted avg 0.73 0.69 0.70 1145 [[716 217] [141 71]] </pre>
	Logistic Regression	<pre> Results of Logistic Regression Classifier on BOW precision recall f1-score support 0 0.92 0.77 0.84 1030 1 0.17 0.43 0.25 115 accuracy macro avg 0.55 0.60 0.54 1145 weighted avg 0.85 0.74 0.78 1145 [[792 238] [65 50]] </pre>
	Random Forest	<pre> Results of Random Forest on BOW precision recall f1-score support 0 1.00 0.75 0.86 1145 1 0.00 0.00 0.00 0 accuracy macro avg 0.50 0.37 0.43 1145 weighted avg 1.00 0.75 0.86 1145 [[857 288] [0 0]] </pre>

	Naive Bayes	<div>Results of Naive Bayes Classifier on BOW</div> <table><thead><tr><th></th><th>precision</th><th>recall</th><th>f1-score</th><th>support</th></tr></thead><tbody><tr><td>0</td><td>0.65</td><td>0.76</td><td>0.70</td><td>734</td></tr><tr><td>1</td><td>0.38</td><td>0.27</td><td>0.31</td><td>411</td></tr><tr><td>accuracy</td><td></td><td></td><td>0.58</td><td>1145</td></tr><tr><td>macro avg</td><td>0.52</td><td>0.51</td><td>0.51</td><td>1145</td></tr><tr><td>weighted avg</td><td>0.55</td><td>0.58</td><td>0.56</td><td>1145</td></tr><tr><td colspan="5">[[556 178]</td></tr><tr><td colspan="5">[301 110]]</td></tr></tbody></table>		precision	recall	f1-score	support	0	0.65	0.76	0.70	734	1	0.38	0.27	0.31	411	accuracy			0.58	1145	macro avg	0.52	0.51	0.51	1145	weighted avg	0.55	0.58	0.56	1145	[[556 178]					[301 110]]				
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		precisionrecallf1-score support	
	0	1.000.750.861145	
	1	0.000.000.000	
	accuracy	0.751145	
	macro avg	0.500.370.431145	
	weighted avg	1.000.750.861145	
	[[857 288]		
	[0 0]]		
	Naive Bayes	Results of Naive Bayes Classifier on TF-IDF Vectorizer	
		precisionrecallf1-score support	
	0	0.530.760.63595	
1	0.510.270.35550		
accuracy	0.531145		
macro avg	0.520.520.491145		
weighted avg	0.520.530.501145		
[[455 140]			
[402 148]]			
	Perceptron	Results of Perceptron Classifier on TF-IDF Vectorizer	
		precisionrecallf1-score support	
	0	0.750.770.76840	
	1	0.330.310.32305	
	accuracy	0.651145	
	macro avg	0.540.540.541145	
	weighted avg	0.640.650.641145	
	[[647 193]		
	[210 95]]		
	Bi-Gram	SVM	Results of SVM CLASSIFIER on Bi-gram
			precisionrecallf1-score support
		0	0.960.760.851090
1		0.080.400.1355	
accuracy		0.741145	
macro avg		0.520.580.491145	
weighted avg		0.920.740.811145	
[[828 262]			
[33 22]]			

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Multiclass Classification

Feature Extration Method	Classifier	Results
BOW	SVM	<pre> Results of SVM CLASSIFIER on BOW precision recall f1-score support 0 0.00 0.00 0.00 0 1 0.00 0.00 0.00 0 2 0.00 0.00 0.00 0 3 0.00 0.00 0.00 0 4 0.00 0.00 0.00 0 5 1.00 0.66 0.80 217 accuracy macro avg 0.17 0.11 0.13 217 weighted avg 1.00 0.66 0.80 217 </pre>
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		0	0.00	0.00	0.00	0	
		1	0.00	0.00	0.00	0	
		2	0.00	0.00	0.00	0	
		3	0.00	0.00	0.00	0	
		4	0.00	0.00	0.00	0	
		5	1.00	0.66	0.80	217	
		accuracy			0.66	217	
		macro avg	0.17	0.11	0.13	217	
		weighted avg	1.00	0.66	0.80	217	
	Naive Bayes	Results of Naive Bayes Classifier on BOW	precision	recall	f1-score	support	
		0	0.07	0.25	0.12	12	
	1	0.00	0.00	0.00	1		
	2	1.00	0.01	0.02	158		
	3	0.00	0.00	0.00	2		
	4	0.00	0.00	0.00	3		
	5	0.17	0.61	0.27	41		
	accuracy			0.14	217		
	macro avg	0.21	0.15	0.07	217		
	weighted avg	0.77	0.14	0.08	217		
	Perceptron	Results of Perceptron Classifier on BOW	precision	recall	f1-score	support	
		0	0.07	0.38	0.12	8	
		1	0.00	0.00	0.00	2	
		2	0.00	0.00	0.00	0	
		3	0.00	0.00	0.00	2	
		4	0.00	0.00	0.00	3	
		5	0.92	0.66	0.77	202	
		accuracy			0.63	217	
		macro avg	0.17	0.17	0.15	217	
		weighted avg	0.86	0.63	0.72	217	
	TF/IDF	SVM	Results of SVM CLASSIFIER on TF-IDF Vectorizer	precision	recall	f1-score	support
			0	0.05	0.22	0.08	9
		1	0.00	0.00	0.00	0	
		2	0.00	0.00	0.00	0	
		3	0.00	0.00	0.00	0	
		4	0.07	0.50	0.12	2	
		5	0.96	0.67	0.79	206	
		accuracy			0.65	217	
		macro avg	0.18	0.23	0.17	217	
		weighted avg	0.91	0.65	0.75	217	

	Logistic Regression	Results of Logistic Regression Classifier on TF-IDF Vectorizer				
		precision	recall	f1-score	support	
	0	0.00	0.00	0.00	0	
	1	0.00	0.00	0.00	0	
	2	0.00	0.00	0.00	0	
	3	0.00	0.00	0.00	0	
	4	0.00	0.00	0.00	0	
	5	1.00	0.66	0.80	217	
	accuracy			0.66	217	
	macro avg	0.17	0.11	0.13	217	
	weighted avg	1.00	0.66	0.80	217	
	Random Forest	Results of Random Forest on TF-IDF Vectorizer				
		precision	recall	f1-score	support	
	0	0.00	0.00	0.00	0	
	1	0.00	0.00	0.00	0	
	2	0.00	0.00	0.00	0	
3	0.00	0.00	0.00	0		
4	0.00	0.00	0.00	0		
5	1.00	0.66	0.80	217		
accuracy			0.66	217		
macro avg	0.17	0.11	0.13	217		
weighted avg	1.00	0.66	0.80	217		
Naive Bayes	Results of Naive Bayes Classifier on TF-IDF Vectorizer					
	precision	recall	f1-score	support		
0	0.12	0.23	0.16	22		
1	0.00	0.00	0.00	1		
2	0.00	0.00	0.00	1		
3	0.00	0.00	0.00	2		
4	0.21	0.25	0.23	12		
5	0.84	0.68	0.75	179		
accuracy			0.59	217		
macro avg	0.20	0.19	0.19	217		
weighted avg	0.72	0.59	0.65	217		
Perceptron	Results of Perceptron Classifier on TF-IDF Vectorizer					
	precision	recall	f1-score	support		
0	0.15	0.24	0.18	25		
1	0.00	0.00	0.00	7		
2	0.00	0.00	0.00	2		
3	0.00	0.00	0.00	2		
4	0.36	0.22	0.27	23		
5	0.76	0.70	0.73	158		
accuracy			0.56	217		
macro avg	0.21	0.19	0.20	217		
weighted avg	0.61	0.56	0.58	217		

Bi-Gram	SVM	<div>Results of SVM CLASSIFIER on Bi-gram</div> <table><thead><tr><th></th><th>precision</th><th>recall</th><th>f1-score</th><th>support</th></tr></thead><tbody><tr><td>0</td><td>0.03</td><td>0.33</td><td>0.05</td><td>3</td></tr><tr><td>1</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0</td></tr><tr><td>2</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0</td></tr><tr><td>3</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0</td></tr><tr><td>4</td><td>0.00</td><td>0.00</td><td>0.00</td><td>1</td></tr><tr><td>5</td><td>0.99</td><td>0.67</td><td>0.80</td><td>213</td></tr><tr><td>accuracy</td><td></td><td></td><td>0.66</td><td>217</td></tr><tr><td>macro avg</td><td>0.17</td><td>0.17</td><td>0.14</td><td>217</td></tr><tr><td>weighted avg</td><td>0.98</td><td>0.66</td><td>0.79</td><td>217</td></tr></tbody></table>		precision	recall	f1-score	support	0	0.03	0.33	0.05	3	1	0.00	0.00	0.00	0	2	0.00	0.00	0.00	0	3	0.00	0.00	0.00	0	4	0.00	0.00	0.00	1	5	0.99	0.67	0.80	213	accuracy			0.66	217	macro avg	0.17	0.17	0.14	217	weighted avg	0.98	0.66	0.79	217
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weighted avg	1.00	0.66	0.80	217																																																

	Naive Bayes	<pre> Results of Naive Bayes Classifier on Tri-gram precision recall f1-score support 0 0.07 0.25 0.12 12 1 0.00 0.00 0.00 1 2 1.00 0.01 0.02 158 3 0.00 0.00 0.00 2 4 0.00 0.00 0.00 3 5 0.17 0.61 0.27 41 accuracy 0.14 217 macro avg 0.21 0.15 0.07 217 weighted avg 0.77 0.14 0.08 217 </pre>
	Perceptron	<pre> Results of Perceptron Classifier on Tri-gram precision recall f1-score support 0 0.07 0.38 0.12 8 1 0.00 0.00 0.00 2 2 0.00 0.00 0.00 0 3 0.00 0.00 0.00 2 4 0.00 0.00 0.00 3 5 0.92 0.66 0.77 202 accuracy 0.63 217 macro avg 0.17 0.17 0.15 217 weighted avg 0.86 0.63 0.72 217 </pre>

Question 2:

Binary Classification

Model	Layer	Dropout	Results
RNN	1	0.2	<pre> precision recall f1-score 0 0.80 0.76 0.78 1 0.25 0.30 0.27 accuracy 0.66 macro avg 0.53 0.53 0.53 </pre>
RNN	2	0.2	<pre> precision recall f1-score 0 0.76 0.75 0.76 1 0.27 0.27 0.27 accuracy 0.63 macro avg 0.51 0.51 0.51 </pre>

RNN	3	0.2	precision		recall	f1-score
			0	0.73	0.76	0.74
			1	0.34	0.29	0.31
			accuracy		0.63	
			macro avg	0.53	0.53	0.53
RNN	1	0.4	precision		recall	f1-score
			0	0.77	0.75	0.76
			1	0.26	0.27	0.26
			accuracy		0.64	
			macro avg	0.51	0.51	0.51
RNN	2	0.4	precision		recall	f1-score
			0	0.73	0.77	0.75
			1	0.34	0.30	0.32
			accuracy		0.63	
			macro avg	0.53	0.53	0.53
RNN	3	0.4	precision		recall	f1-score
			0	0.84	0.75	0.79
			1	0.18	0.27	0.22
			accuracy		0.67	
			macro avg	0.51	0.51	0.51
RNN	1	0.6	precision		recall	f1-score
			0	0.76	0.75	0.76
			1	0.25	0.26	0.26
			accuracy		0.63	
			macro avg	0.51	0.51	0.51

RNN	2	0.6	precision		recall	f1-score
			0	0.80	0.76	0.78
			1	0.26	0.30	0.28
			accuracy		0.66	
			macro avg	0.53	0.53	0.53
RNN	3	0.6	precision		recall	f1-score
			0	0.83	0.75	0.79
			1	0.18	0.27	0.22
			accuracy		0.67	
			macro avg	0.51	0.51	0.50
LSTM	1	0.2	precision		recall	f1-score
			0	0.65	0.76	0.70
			1	0.32	0.21	0.26
			accuracy		0.58	
LSTM	2	0.2	precision		recall	f1-score
			0	0.64	0.77	0.70
			1	0.34	0.22	0.27
			accuracy		0.57	
LSTM	3	0.2	precision		recall	f1-score
			0	0.67	0.77	0.72
			1	0.32	0.22	0.26
			accuracy		0.59	
LSTM	1	0.4	0	0.65	0.77	0.70
			1	0.35	0.23	0.28
			accuracy		0.58	

LSTM	2	0.4	precision		recall	f1-score
			0	0.65	0.77	0.71
			1	0.35	0.23	0.28
			accuracy		0.59	
LSTM	3	0.4	precision		recall	f1-score
			0	0.63	0.76	0.69
			1	0.33	0.21	0.26
			accuracy		0.56	
LSTM	1	0.6	precision		recall	f1-score
			0	0.81	0.75	0.78
			1	0.20	0.26	0.23
			accuracy		0.66	
			macro avg		0.51	0.51
LSTM	2	0.6	precision		recall	f1-score
			0	0.81	0.75	0.78
			1	0.20	0.26	0.23
			accuracy		0.66	
			macro avg		0.51	0.51
LSTM	3	0.6	precision		recall	f1-score
			0	0.81	0.75	0.78
			1	0.20	0.26	0.23
			accuracy		0.66	
			macro avg		0.51	0.51

Model	Layer	Dropout	Results
BILSTM	1	0.2	<pre> precision recall f1-score 0 0.65 0.76 0.70 1 0.32 0.21 0.26 accuracy 0.58 </pre>
BILSTM	2	0.2	<pre> precision recall f1-score 0 0.64 0.77 0.70 1 0.34 0.22 0.27 accuracy 0.57 </pre>
BILSTM	3	0.2	<pre> precision recall f1-score 0 0.65 0.76 0.70 1 0.32 0.21 0.25 accuracy 0.57 </pre>
BILSTM	1	0.4	<pre> precision recall f1-score 0 1.00 0.75 0.86 1 0.00 0.00 0.00 accuracy 0.75 macro avg 0.50 0.37 0.43 </pre>
BILSTM	2	0.4	<pre> precision recall f1-score 0 1.00 0.75 0.85 1 0.00 0.00 0.00 accuracy 0.75 macro avg 0.50 0.37 0.43 </pre>

BILSTM	3	0.4	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy			0.75
			macro avg			0.43
BILSTM	1	0.6	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy			0.75
			macro avg			0.43
BILSTM	2	0.6	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy			0.75
			macro avg			0.43
BILSTM	3	0.6	precision recall f1-score s			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy			0.75
			macro avg			0.43
GRU	1	0.2	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy			0.75
			macro avg			0.43

GRU	2	0.2	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy		0.75	
			macro avg		0.50	0.43
GRU	3	0.2	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy		0.75	
			macro avg		0.50	0.43
GRU	1	0.4	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy		0.75	
			macro avg		0.50	0.43
GRU	2	0.4	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy		0.75	
			macro avg		0.50	0.43
GRU	3	0.4	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy		0.75	
			macro avg		0.50	0.43
GRU	1	0.6	precision recall f1-score			
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy		0.75	
			macro avg		0.50	0.43

GRU	2	0.6				
				precision	recall	f1-score
			0	1.00	0.75	0.86
			1	0.00	0.00	0.00
			accuracy			0.75
GRU	3	0.6	macro avg	0.50	0.38	0.43

Multiclass classification

Analysis : The dataset is very imbalanced / skewed. Most of the tweets had NaN values or not fall in any of the 5 categories so the results particularly accuracy is severely effected by it.

Model	Layer	Dropout	Results			
RNN	1	0.2		precision	recall	f1-score
			0	0.14	0.15	0.15
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.14	0.06	0.08
			micro avg	0.14	0.09	0.11
			macro avg	0.06	0.04	0.05

RNN	2	0.2	precision recall f1-score			
			0	0.23	0.30	0.26
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.11	0.12	0.12
			micro avg	0.19	0.19	0.19
			macro avg	0.07	0.08	0.08
			weighted avg	0.14	0.10	0.10
RNN	3	0.2	precision recall f1-score			
			0	0.17	0.25	0.20
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.17	0.22	0.19
			micro avg	0.16	0.19	0.17
			macro avg	0.07	0.09	0.08
			weighted avg	0.14	0.10	0.10
RNN	1	0.4	precision recall f1-score			
			0	0.17	0.18	0.17
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.05	0.03	0.04
			micro avg	0.13	0.11	0.12
			macro avg	0.04	0.04	0.04
			weighted avg	0.08	0.05	0.05
RNN	2	0.4	precision recall f1-score			
			0	0.24	0.31	0.27
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.04	0.07	0.05
			4	0.05	0.03	0.04
			micro avg	0.15	0.18	0.17
			macro avg	0.07	0.08	0.07
			weighted avg	0.10	0.10	0.10

RNN	3	0.4	precision		recall	f1-score
			0	0.40	0.03	0.06
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.14	0.16	0.14
			micro avg	0.16	0.06	0.09
			macro avg	0.11	0.04	0.04
RNN	1	0.6	precision		recall	f1-score
			0	0.40	0.03	0.06
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.14	0.16	0.14
			micro avg	0.16	0.06	0.09
			macro avg	0.11	0.04	0.04
RNN	2	0.6	precision		recall	f1-score
			0	0.13	0.11	0.12
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.00	0.00	0.00
			micro avg	0.13	0.06	0.08
			macro avg	0.03	0.02	0.02
RNN	3	0.6	precision		recall	f1-score
			0	0.31	0.08	0.13
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.12	0.28	0.17
			micro avg	0.15	0.12	0.13
			macro avg	0.09	0.07	0.06

LSTM	1	0.2	precision		recall	f1-score
			0	0.12	0.08	0.10
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.18	0.13	0.15
			micro avg	0.14	0.08	0.10
			macro avg	0.06	0.04	0.05
LSTM	2	0.2	precision		recall	f1-score
			0	0.20	0.52	0.29
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.13	0.07	0.09
			micro avg	0.19	0.28	0.23
			macro avg	0.07	0.12	0.08
LSTM	3	0.2	precision		recall	f1-score
			0	0.21	0.42	0.28
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.20	0.03	0.06
			micro avg	0.19	0.21	0.20
			macro avg	0.08	0.09	0.07
LSTM	1	0.4	precision		recall	f1-score
			0	0.17	0.10	0.13
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.06	0.03	0.04
			micro avg	0.13	0.06	0.08
			macro avg	0.05	0.03	0.03

LSTM	2	0.4	precision		recall	f1-score
			0	0.22	0.33	0.27
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.14	0.07	0.09
			micro avg	0.21	0.18	0.20
			macro avg	0.07	0.08	0.07
LSTM	3	0.4	precision		recall	f1-score
			0	0.21	0.15	0.17
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.09	0.13	0.11
			micro avg	0.14	0.11	0.12
			macro avg	0.06	0.06	0.06
LSTM	1	0.6	precision		recall	f1-score
			0	0.12	0.10	0.11
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.07	0.03	0.04
			micro avg	0.10	0.06	0.08
			macro avg	0.04	0.03	0.03
LSTM	2	0.6	precision		recall	f1-score
			0	0.19	0.31	0.24
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.10	0.07	0.08
			micro avg	0.17	0.17	0.17
			macro avg	0.06	0.08	0.06

LSTM	3	0.6		precision	recall	f1-score
			0	0.22	0.35	0.27
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.10	0.04	0.05
			micro avg	0.21	0.22	0.21
			macro avg	0.06	0.08	0.06

(The results for GRU and BILSTM are similar because the dataset is fairly skewed)

Model	Layer	Dropout	Results			
GRU	1,2,3	0.2		precision	recall	f1-score
			0	0.00	0.00	0.00
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.00	0.00	0.00
			5	0.64	1.00	0.78
			accuracy			0.64
			macro avg	0.11	0.17	0.13
GRU	1,2,3	0.4		precision	recall	f1-score
			0	0.00	0.00	0.00
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.00	0.00	0.00
			5	0.64	1.00	0.78
			accuracy			0.64
			macro avg	0.11	0.17	0.13

GRU	1,2,3	0.6	precision		recall	f1-score
			0	0.00	0.00	0.00
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.00	0.00	0.00
			5	0.64	1.00	0.78
			accuracy			0.64
			macro avg		0.11	0.17
BILSTM	1,2,3	0.2	precision		recall	f1-score
			0	0.00	0.00	0.00
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.00	0.00	0.00
			5	0.64	1.00	0.78
			accuracy			0.64
			macro avg		0.11	0.17
BILSTM	1,2,3	0.4	precision		recall	f1-score
			0	0.00	0.00	0.00
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.00	0.00	0.00
			5	0.64	1.00	0.78
			accuracy			0.64
			macro avg		0.11	0.17
BILSTM	1,2,3	0.6	precision		recall	f1-score
			0	0.00	0.00	0.00
			1	0.00	0.00	0.00
			2	0.00	0.00	0.00
			3	0.00	0.00	0.00
			4	0.00	0.00	0.00
			5	0.64	1.00	0.78
			accuracy			0.64
			macro avg		0.11	0.17