Entering function \_\_main\_\_

Embedding tokens size=400001

File name 5way\_tur\_ger\_rus\_fra\_usa100K\_25-150. Total data size is 500000

Our 5 labels to index dictionary ={u'turkey': 3, u'germany': 1, u'russia': 2, u'us': 4, u'france': 0}

Our 5 index to labels dictionary ={0: u'france', 1: u'germany', 2: u'russia', 3: u'turkey', 4: u'us'}

x\_train: 405000, x\_dev: 45000, x\_test: 50000

y\_train: 405000, y\_dev: 45000, y\_test: 50000

input\_data\_x\_batch shape: (600, 150)

input\_labels\_batch shape: (600, 5)

data(after embedding) shape: (600, 150, 300)

gru\_forward\_cell units: 75

gru\_forward\_cell2 units: 75

multi\_forward\_cell: 2 cells

gru\_backward\_cell units: 75

gru\_backward\_cell2 units: 75

multi\_backward\_cell: 2 cells

---vars name and shapes---

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(375), Dimension(150)]), 56250)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(150)]), 150)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(375), Dimension(75)]), 28125)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(75)]), 75)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(150), Dimension(150)]), 22500)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(150)]), 150)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(150), Dimension(75)]), 11250)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(75)]), 75)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(375), Dimension(150)]), 56250)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(150)]), 150)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(375), Dimension(75)]), 28125)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(75)]), 75)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(150), Dimension(150)]), 22500)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(150)]), 150)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(150), Dimension(75)]), 11250)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(75)]), 75)

(u'Variable:0', TensorShape([Dimension(150), Dimension(5)]), 750)

(u'bias:0', TensorShape([Dimension(5)]), 5)

total PARAM 237,905

---done vars---

batches\_num\_train: 675

batches\_num\_dev: 75

Epoch: 1/30 ---- best so far on epoch 0: acc=0.0000%

DEV accuracy on epoch 1/30 in train step 337 = 19.9467%

Dev loss average for this epoch is 149.3709 and average acc is 19.9467

Class turkey : (3/9042) -> accuracy: 0.0332%

Class germany: (1/9133) -> accuracy: 0.0109%

Class russia : (8971/8974) -> accuracy: 99.9666%

Class us : (0/8947) -> accuracy: 0.0000%

Class france : (1/8904) -> accuracy: 0.0112%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 1

INFO:root: Best accuracy 19.9467% at epoch 1/30 (8976/45000)

DEV accuracy on epoch 1/30 in train step 672 = 33.9133%

Dev loss average for this epoch is 79.1771 and average acc is 33.9133

Class turkey : (1532/9042) -> accuracy: 16.9432%

Class germany: (3971/9133) -> accuracy: 43.4797%

Class russia : (7676/8974) -> accuracy: 85.5360%

Class us : (0/8947) -> accuracy: 0.0000%

Class france : (2082/8904) -> accuracy: 23.3827%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 1

INFO:root: Best accuracy 33.9133% at epoch 1/30 (15261/45000)

Epoch run time: 00:11:50

Train average loss for this epoch is 159.8052 and average acc is 20.5664

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Epoch: 2/30 ---- best so far on epoch 1: acc=33.9133%

DEV accuracy on epoch 2/30 in train step 337 = 48.2689%

Dev loss average for this epoch is 40.5800 and average acc is 48.2689

Class turkey : (5855/9042) -> accuracy: 64.7534%

Class germany: (5280/9133) -> accuracy: 57.8123%

Class russia : (4691/8974) -> accuracy: 52.2732%

Class us : (3048/8947) -> accuracy: 34.0673%

Class france : (2847/8904) -> accuracy: 31.9744%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 2

INFO:root: Best accuracy 48.2689% at epoch 2/30 (21721/45000)

DEV accuracy on epoch 2/30 in train step 672 = 50.6800%

Dev loss average for this epoch is 20.5158 and average acc is 50.6800

Class turkey : (5968/9042) -> accuracy: 66.0031%

Class germany: (4299/9133) -> accuracy: 47.0711%

Class russia : (5170/8974) -> accuracy: 57.6109%

Class us : (3659/8947) -> accuracy: 40.8964%

Class france : (3710/8904) -> accuracy: 41.6667%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 2

INFO:root: Best accuracy 50.6800% at epoch 2/30 (22806/45000)

Epoch run time: 00:11:37

Train average loss for this epoch is 43.6970 and average acc is 43.5556

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Epoch: 3/30 ---- best so far on epoch 2: acc=50.6800%

DEV accuracy on epoch 3/30 in train step 337 = 51.8778%

Dev loss average for this epoch is 10.0707 and average acc is 51.8778

Class turkey : (6309/9042) -> accuracy: 69.7744%

Class germany: (4769/9133) -> accuracy: 52.2172%

Class russia : (5375/8974) -> accuracy: 59.8953%

Class us : (3967/8947) -> accuracy: 44.3389%

Class france : (2925/8904) -> accuracy: 32.8504%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 3

INFO:root: Best accuracy 51.8778% at epoch 3/30 (23345/45000)

DEV accuracy on epoch 3/30 in train step 672 = 52.5133%

Dev loss average for this epoch is 5.0282 and average acc is 52.5133

Class turkey : (6237/9042) -> accuracy: 68.9781%

Class germany: (4668/9133) -> accuracy: 51.1114%

Class russia : (5535/8974) -> accuracy: 61.6782%

Class us : (3809/8947) -> accuracy: 42.5729%

Class france : (3382/8904) -> accuracy: 37.9829%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 3

INFO:root: Best accuracy 52.5133% at epoch 3/30 (23631/45000)

Epoch run time: 00:11:36

Train average loss for this epoch is 11.0277 and average acc is 50.1336

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Epoch: 4/30 ---- best so far on epoch 3: acc=52.5133%

DEV accuracy on epoch 4/30 in train step 337 = 53.0156%

Dev loss average for this epoch is 2.6926 and average acc is 53.0156

Class turkey : (6146/9042) -> accuracy: 67.9717%

Class germany: (4350/9133) -> accuracy: 47.6295%

Class russia : (5644/8974) -> accuracy: 62.8928%

Class us : (4253/8947) -> accuracy: 47.5355%

Class france : (3464/8904) -> accuracy: 38.9039%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 4

INFO:root: Best accuracy 53.0156% at epoch 4/30 (23857/45000)

DEV accuracy on epoch 4/30 in train step 672 = 52.5956%

Dev loss average for this epoch is 1.7628 and average acc is 52.5956

Class turkey : (6537/9042) -> accuracy: 72.2960%

Class germany: (4274/9133) -> accuracy: 46.7973%

Class russia : (5918/8974) -> accuracy: 65.9461%

Class us : (3441/8947) -> accuracy: 38.4598%

Class france : (3498/8904) -> accuracy: 39.2857%

Epoch run time: 00:13:11

Train average loss for this epoch is 2.9810 and average acc is 51.9163

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Epoch: 5/30 ---- best so far on epoch 4: acc=53.0156%

DEV accuracy on epoch 5/30 in train step 337 = 53.3822%

Dev loss average for this epoch is 1.4249 and average acc is 53.3822

Class turkey : (6257/9042) -> accuracy: 69.1993%

Class germany: (4979/9133) -> accuracy: 54.5166%

Class russia : (5451/8974) -> accuracy: 60.7421%

Class us : (4644/8947) -> accuracy: 51.9057%

Class france : (2691/8904) -> accuracy: 30.2224%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 5

INFO:root: Best accuracy 53.3822% at epoch 5/30 (24022/45000)

DEV accuracy on epoch 5/30 in train step 672 = 53.7778%

Dev loss average for this epoch is 1.3296 and average acc is 53.7778

Class turkey : (6088/9042) -> accuracy: 67.3302%

Class germany: (4965/9133) -> accuracy: 54.3633%

Class russia : (5874/8974) -> accuracy: 65.4558%

Class us : (3465/8947) -> accuracy: 38.7281%

Class france : (3808/8904) -> accuracy: 42.7673%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 5

INFO:root: Best accuracy 53.7778% at epoch 5/30 (24200/45000)

Epoch run time: 00:16:45

Train average loss for this epoch is 1.4966 and average acc is 53.1896

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Epoch: 6/30 ---- best so far on epoch 5: acc=53.7778%

DEV accuracy on epoch 6/30 in train step 337 = 54.0356%

Dev loss average for this epoch is 1.3046 and average acc is 54.0356

Class turkey : (5776/9042) -> accuracy: 63.8797%

Class germany: (5414/9133) -> accuracy: 59.2795%

Class russia : (6094/8974) -> accuracy: 67.9073%

Class us : (4026/8947) -> accuracy: 44.9983%

Class france : (3006/8904) -> accuracy: 33.7601%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 6

INFO:root: Best accuracy 54.0356% at epoch 6/30 (24316/45000)

DEV accuracy on epoch 6/30 in train step 672 = 54.2933%

Dev loss average for this epoch is 1.2950 and average acc is 54.2933

Class turkey : (6026/9042) -> accuracy: 66.6445%

Class germany: (4629/9133) -> accuracy: 50.6843%

Class russia : (5917/8974) -> accuracy: 65.9349%

Class us : (3775/8947) -> accuracy: 42.1929%

Class france : (4085/8904) -> accuracy: 45.8783%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 6

INFO:root: Best accuracy 54.2933% at epoch 6/30 (24432/45000)

Epoch run time: 00:12:52

Train average loss for this epoch is 1.3299 and average acc is 54.2126

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Epoch: 7/30 ---- best so far on epoch 6: acc=54.2933%

DEV accuracy on epoch 7/30 in train step 337 = 54.3911%

Dev loss average for this epoch is 1.2951 and average acc is 54.3911

Class turkey : (6361/9042) -> accuracy: 70.3495%

Class germany: (4851/9133) -> accuracy: 53.1151%

Class russia : (5867/8974) -> accuracy: 65.3778%

Class us : (4280/8947) -> accuracy: 47.8373%

Class france : (3117/8904) -> accuracy: 35.0067%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 7

INFO:root: Best accuracy 54.3911% at epoch 7/30 (24476/45000)

DEV accuracy on epoch 7/30 in train step 672 = 54.7578%

Dev loss average for this epoch is 1.2894 and average acc is 54.7578

Class turkey : (6216/9042) -> accuracy: 68.7459%

Class germany: (4869/9133) -> accuracy: 53.3122%

Class russia : (5943/8974) -> accuracy: 66.2246%

Class us : (3985/8947) -> accuracy: 44.5401%

Class france : (3628/8904) -> accuracy: 40.7457%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 7

INFO:root: Best accuracy 54.7578% at epoch 7/30 (24641/45000)

Epoch run time: 00:12:33

Train average loss for this epoch is 1.3120 and average acc is 54.9827

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Epoch: 8/30 ---- best so far on epoch 7: acc=54.7578%

DEV accuracy on epoch 8/30 in train step 337 = 54.7911%

Dev loss average for this epoch is 1.2863 and average acc is 54.7911

Class turkey : (6373/9042) -> accuracy: 70.4822%

Class germany: (4908/9133) -> accuracy: 53.7392%

Class russia : (5554/8974) -> accuracy: 61.8899%

Class us : (4613/8947) -> accuracy: 51.5592%

Class france : (3208/8904) -> accuracy: 36.0288%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 8

INFO:root: Best accuracy 54.7911% at epoch 8/30 (24656/45000)

DEV accuracy on epoch 8/30 in train step 672 = 54.8889%

Dev loss average for this epoch is 1.2849 and average acc is 54.8889

Class turkey : (6068/9042) -> accuracy: 67.1090%

Class germany: (4446/9133) -> accuracy: 48.6806%

Class russia : (6087/8974) -> accuracy: 67.8293%

Class us : (4239/8947) -> accuracy: 47.3790%

Class france : (3860/8904) -> accuracy: 43.3513%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 8

INFO:root: Best accuracy 54.8889% at epoch 8/30 (24700/45000)

Epoch run time: 00:17:17

Train average loss for this epoch is 1.3014 and average acc is 55.7894

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Epoch: 9/30 ---- best so far on epoch 8: acc=54.8889%

DEV accuracy on epoch 9/30 in train step 337 = 55.0533%

Dev loss average for this epoch is 1.2819 and average acc is 55.0533

Class turkey : (6153/9042) -> accuracy: 68.0491%

Class germany: (4835/9133) -> accuracy: 52.9399%

Class russia : (5738/8974) -> accuracy: 63.9403%

Class us : (4855/8947) -> accuracy: 54.2640%

Class france : (3193/8904) -> accuracy: 35.8603%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 9

INFO:root: Best accuracy 55.0533% at epoch 9/30 (24774/45000)

DEV accuracy on epoch 9/30 in train step 672 = 54.9244%

Dev loss average for this epoch is 1.2830 and average acc is 54.9244

Class turkey : (6452/9042) -> accuracy: 71.3559%

Class germany: (4515/9133) -> accuracy: 49.4361%

Class russia : (5982/8974) -> accuracy: 66.6592%

Class us : (3935/8947) -> accuracy: 43.9812%

Class france : (3832/8904) -> accuracy: 43.0368%

Epoch run time: 00:12:49

Train average loss for this epoch is 1.2927 and average acc is 56.3963

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Epoch: 10/30 ---- best so far on epoch 9: acc=55.0533%

DEV accuracy on epoch 10/30 in train step 337 = 55.3644%

Dev loss average for this epoch is 1.2822 and average acc is 55.3644

Class turkey : (6249/9042) -> accuracy: 69.1108%

Class germany: (5179/9133) -> accuracy: 56.7064%

Class russia : (5808/8974) -> accuracy: 64.7203%

Class us : (4613/8947) -> accuracy: 51.5592%

Class france : (3065/8904) -> accuracy: 34.4227%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 10

INFO:root: Best accuracy 55.3644% at epoch 10/30 (24914/45000)

DEV accuracy on epoch 10/30 in train step 672 = 55.5867%

Dev loss average for this epoch is 1.2764 and average acc is 55.5867

Class turkey : (6144/9042) -> accuracy: 67.9496%

Class germany: (4511/9133) -> accuracy: 49.3923%

Class russia : (5932/8974) -> accuracy: 66.1021%

Class us : (4654/8947) -> accuracy: 52.0174%

Class france : (3773/8904) -> accuracy: 42.3742%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 10

INFO:root: Best accuracy 55.5867% at epoch 10/30 (25014/45000)

Epoch run time: 00:12:15

Train average loss for this epoch is 1.2838 and average acc is 57.0802

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Epoch: 11/30 ---- best so far on epoch 10: acc=55.5867%

DEV accuracy on epoch 11/30 in train step 337 = 55.4111%

Dev loss average for this epoch is 1.2793 and average acc is 55.4111

Class turkey : (6414/9042) -> accuracy: 70.9356%

Class germany: (4953/9133) -> accuracy: 54.2319%

Class russia : (5640/8974) -> accuracy: 62.8482%

Class us : (4466/8947) -> accuracy: 49.9162%

Class france : (3462/8904) -> accuracy: 38.8814%

DEV accuracy on epoch 11/30 in train step 672 = 55.1489%

Dev loss average for this epoch is 1.2787 and average acc is 55.1489

Class turkey : (5767/9042) -> accuracy: 63.7801%

Class germany: (4389/9133) -> accuracy: 48.0565%

Class russia : (6507/8974) -> accuracy: 72.5095%

Class us : (4157/8947) -> accuracy: 46.4625%

Class france : (3997/8904) -> accuracy: 44.8899%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2777 and average acc is 57.5205

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Epoch: 12/30 ---- best so far on epoch 10: acc=55.5867%

DEV accuracy on epoch 12/30 in train step 337 = 55.6244%

Dev loss average for this epoch is 1.2759 and average acc is 55.6244

Class turkey : (5900/9042) -> accuracy: 65.2511%

Class germany: (5370/9133) -> accuracy: 58.7978%

Class russia : (5963/8974) -> accuracy: 66.4475%

Class us : (4641/8947) -> accuracy: 51.8721%

Class france : (3157/8904) -> accuracy: 35.4560%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 12

INFO:root: Best accuracy 55.6244% at epoch 12/30 (25031/45000)

DEV accuracy on epoch 12/30 in train step 672 = 55.3044%

Dev loss average for this epoch is 1.2787 and average acc is 55.3044

Class turkey : (5974/9042) -> accuracy: 66.0695%

Class germany: (4822/9133) -> accuracy: 52.7975%

Class russia : (6468/8974) -> accuracy: 72.0749%

Class us : (4241/8947) -> accuracy: 47.4014%

Class france : (3382/8904) -> accuracy: 37.9829%

Epoch run time: 00:11:44

Train average loss for this epoch is 1.2710 and average acc is 58.0284

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Epoch: 13/30 ---- best so far on epoch 12: acc=55.6244%

DEV accuracy on epoch 13/30 in train step 337 = 55.6200%

Dev loss average for this epoch is 1.2773 and average acc is 55.6200

Class turkey : (5780/9042) -> accuracy: 63.9239%

Class germany: (5450/9133) -> accuracy: 59.6737%

Class russia : (5606/8974) -> accuracy: 62.4694%

Class us : (4567/8947) -> accuracy: 51.0450%

Class france : (3626/8904) -> accuracy: 40.7233%

DEV accuracy on epoch 13/30 in train step 672 = 55.1311%

Dev loss average for this epoch is 1.2859 and average acc is 55.1311

Class turkey : (6053/9042) -> accuracy: 66.9432%

Class germany: (4612/9133) -> accuracy: 50.4982%

Class russia : (6575/8974) -> accuracy: 73.2672%

Class us : (4044/8947) -> accuracy: 45.1995%

Class france : (3525/8904) -> accuracy: 39.5889%

Epoch run time: 00:11:31

Train average loss for this epoch is 1.2641 and average acc is 58.5491

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Epoch: 14/30 ---- best so far on epoch 12: acc=55.6244%

DEV accuracy on epoch 14/30 in train step 337 = 55.6356%

Dev loss average for this epoch is 1.2750 and average acc is 55.6356

Class turkey : (5865/9042) -> accuracy: 64.8640%

Class germany: (5560/9133) -> accuracy: 60.8781%

Class russia : (5559/8974) -> accuracy: 61.9456%

Class us : (4468/8947) -> accuracy: 49.9385%

Class france : (3584/8904) -> accuracy: 40.2516%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 14

INFO:root: Best accuracy 55.6356% at epoch 14/30 (25036/45000)

DEV accuracy on epoch 14/30 in train step 672 = 55.1911%

Dev loss average for this epoch is 1.2863 and average acc is 55.1911

Class turkey : (5319/9042) -> accuracy: 58.8255%

Class germany: (4359/9133) -> accuracy: 47.7280%

Class russia : (6665/8974) -> accuracy: 74.2701%

Class us : (4598/8947) -> accuracy: 51.3915%

Class france : (3895/8904) -> accuracy: 43.7444%

Epoch run time: 00:11:44

Train average loss for this epoch is 1.2584 and average acc is 58.9946

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Epoch: 15/30 ---- best so far on epoch 14: acc=55.6356%

DEV accuracy on epoch 15/30 in train step 337 = 55.7200%

Dev loss average for this epoch is 1.2748 and average acc is 55.7200

Class turkey : (5530/9042) -> accuracy: 61.1590%

Class germany: (5080/9133) -> accuracy: 55.6225%

Class russia : (5546/8974) -> accuracy: 61.8008%

Class us : (5300/8947) -> accuracy: 59.2377%

Class france : (3618/8904) -> accuracy: 40.6334%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 15

INFO:root: Best accuracy 55.7200% at epoch 15/30 (25074/45000)

DEV accuracy on epoch 15/30 in train step 672 = 55.4333%

Dev loss average for this epoch is 1.2809 and average acc is 55.4333

Class turkey : (5618/9042) -> accuracy: 62.1323%

Class germany: (5011/9133) -> accuracy: 54.8670%

Class russia : (6468/8974) -> accuracy: 72.0749%

Class us : (3959/8947) -> accuracy: 44.2495%

Class france : (3889/8904) -> accuracy: 43.6770%

Epoch run time: 00:11:38

Train average loss for this epoch is 1.2537 and average acc is 59.3326

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Epoch: 16/30 ---- best so far on epoch 15: acc=55.7200%

DEV accuracy on epoch 16/30 in train step 337 = 55.4556%

Dev loss average for this epoch is 1.2817 and average acc is 55.4556

Class turkey : (5724/9042) -> accuracy: 63.3046%

Class germany: (4928/9133) -> accuracy: 53.9582%

Class russia : (5582/8974) -> accuracy: 62.2019%

Class us : (5497/8947) -> accuracy: 61.4396%

Class france : (3224/8904) -> accuracy: 36.2084%

DEV accuracy on epoch 16/30 in train step 672 = 55.8444%

Dev loss average for this epoch is 1.2749 and average acc is 55.8444

Class turkey : (5722/9042) -> accuracy: 63.2825%

Class germany: (4837/9133) -> accuracy: 52.9618%

Class russia : (6243/8974) -> accuracy: 69.5676%

Class us : (4279/8947) -> accuracy: 47.8261%

Class france : (4049/8904) -> accuracy: 45.4739%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 16

INFO:root: Best accuracy 55.8444% at epoch 16/30 (25130/45000)

Epoch run time: 00:14:49

Train average loss for this epoch is 1.2497 and average acc is 59.7375

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Epoch: 17/30 ---- best so far on epoch 16: acc=55.8444%

DEV accuracy on epoch 17/30 in train step 337 = 55.5933%

Dev loss average for this epoch is 1.2793 and average acc is 55.5933

Class turkey : (5737/9042) -> accuracy: 63.4484%

Class germany: (4648/9133) -> accuracy: 50.8924%

Class russia : (5851/8974) -> accuracy: 65.1995%

Class us : (5188/8947) -> accuracy: 57.9859%

Class france : (3593/8904) -> accuracy: 40.3527%

DEV accuracy on epoch 17/30 in train step 672 = 55.5089%

Dev loss average for this epoch is 1.2780 and average acc is 55.5089

Class turkey : (5685/9042) -> accuracy: 62.8733%

Class germany: (4756/9133) -> accuracy: 52.0749%

Class russia : (6023/8974) -> accuracy: 67.1161%

Class us : (4316/8947) -> accuracy: 48.2396%

Class france : (4199/8904) -> accuracy: 47.1586%

Epoch run time: 00:11:39

Train average loss for this epoch is 1.2463 and average acc is 60.0523

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Epoch: 18/30 ---- best so far on epoch 16: acc=55.8444%

DEV accuracy on epoch 18/30 in train step 337 = 55.5911%

Dev loss average for this epoch is 1.2792 and average acc is 55.5911

Class turkey : (5771/9042) -> accuracy: 63.8244%

Class germany: (4852/9133) -> accuracy: 53.1260%

Class russia : (5582/8974) -> accuracy: 62.2019%

Class us : (4975/8947) -> accuracy: 55.6052%

Class france : (3836/8904) -> accuracy: 43.0818%

DEV accuracy on epoch 18/30 in train step 672 = 55.8067%

Dev loss average for this epoch is 1.2743 and average acc is 55.8067

Class turkey : (5508/9042) -> accuracy: 60.9157%

Class germany: (5248/9133) -> accuracy: 57.4620%

Class russia : (6112/8974) -> accuracy: 68.1079%

Class us : (4338/8947) -> accuracy: 48.4855%

Class france : (3907/8904) -> accuracy: 43.8792%

Epoch run time: 00:11:42

Train average loss for this epoch is 1.2413 and average acc is 60.5217

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Epoch: 19/30 ---- best so far on epoch 16: acc=55.8444%

DEV accuracy on epoch 19/30 in train step 337 = 55.8000%

Dev loss average for this epoch is 1.2764 and average acc is 55.8000

Class turkey : (5748/9042) -> accuracy: 63.5700%

Class germany: (4618/9133) -> accuracy: 50.5639%

Class russia : (5808/8974) -> accuracy: 64.7203%

Class us : (4790/8947) -> accuracy: 53.5375%

Class france : (4146/8904) -> accuracy: 46.5633%

DEV accuracy on epoch 19/30 in train step 672 = 55.8533%

Dev loss average for this epoch is 1.2740 and average acc is 55.8533

Class turkey : (5874/9042) -> accuracy: 64.9635%

Class germany: (5230/9133) -> accuracy: 57.2649%

Class russia : (5526/8974) -> accuracy: 61.5779%

Class us : (4883/8947) -> accuracy: 54.5770%

Class france : (3621/8904) -> accuracy: 40.6671%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 19

INFO:root: Best accuracy 55.8533% at epoch 19/30 (25134/45000)

Epoch run time: 00:13:30

Train average loss for this epoch is 1.2370 and average acc is 60.8583

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Epoch: 20/30 ---- best so far on epoch 19: acc=55.8533%

DEV accuracy on epoch 20/30 in train step 337 = 55.5933%

Dev loss average for this epoch is 1.2809 and average acc is 55.5933

Class turkey : (5787/9042) -> accuracy: 64.0013%

Class germany: (4733/9133) -> accuracy: 51.8231%

Class russia : (5539/8974) -> accuracy: 61.7228%

Class us : (5317/8947) -> accuracy: 59.4277%

Class france : (3641/8904) -> accuracy: 40.8917%

DEV accuracy on epoch 20/30 in train step 672 = 55.8667%

Dev loss average for this epoch is 1.2749 and average acc is 55.8667

Class turkey : (6029/9042) -> accuracy: 66.6777%

Class germany: (5025/9133) -> accuracy: 55.0203%

Class russia : (5787/8974) -> accuracy: 64.4863%

Class us : (4839/8947) -> accuracy: 54.0852%

Class france : (3460/8904) -> accuracy: 38.8589%

INFO:root: Saved model ../model\_temp/model.ckpt at epoch 20

INFO:root: Best accuracy 55.8667% at epoch 20/30 (25140/45000)

Epoch run time: 00:14:31

Train average loss for this epoch is 1.2335 and average acc is 61.0477

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Epoch: 21/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 21/30 in train step 337 = 55.5289%

Dev loss average for this epoch is 1.2799 and average acc is 55.5289

Class turkey : (5584/9042) -> accuracy: 61.7562%

Class germany: (4494/9133) -> accuracy: 49.2062%

Class russia : (5609/8974) -> accuracy: 62.5028%

Class us : (5311/8947) -> accuracy: 59.3607%

Class france : (3990/8904) -> accuracy: 44.8113%

DEV accuracy on epoch 21/30 in train step 672 = 55.4867%

Dev loss average for this epoch is 1.2781 and average acc is 55.4867

Class turkey : (6128/9042) -> accuracy: 67.7726%

Class germany: (4383/9133) -> accuracy: 47.9908%

Class russia : (5936/8974) -> accuracy: 66.1466%

Class us : (5153/8947) -> accuracy: 57.5947%

Class france : (3369/8904) -> accuracy: 37.8369%

Epoch run time: 00:11:33

Train average loss for this epoch is 1.2310 and average acc is 61.2993

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Epoch: 22/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 22/30 in train step 337 = 55.5489%

Dev loss average for this epoch is 1.2827 and average acc is 55.5489

Class turkey : (5343/9042) -> accuracy: 59.0909%

Class germany: (5001/9133) -> accuracy: 54.7575%

Class russia : (5658/8974) -> accuracy: 63.0488%

Class us : (5089/8947) -> accuracy: 56.8794%

Class france : (3906/8904) -> accuracy: 43.8679%

DEV accuracy on epoch 22/30 in train step 672 = 55.3511%

Dev loss average for this epoch is 1.2827 and average acc is 55.3511

Class turkey : (5584/9042) -> accuracy: 61.7562%

Class germany: (4641/9133) -> accuracy: 50.8157%

Class russia : (6226/8974) -> accuracy: 69.3782%

Class us : (5046/8947) -> accuracy: 56.3988%

Class france : (3411/8904) -> accuracy: 38.3086%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2272 and average acc is 61.6430

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Epoch: 23/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 23/30 in train step 337 = 55.2822%

Dev loss average for this epoch is 1.2849 and average acc is 55.2822

Class turkey : (5474/9042) -> accuracy: 60.5397%

Class germany: (4967/9133) -> accuracy: 54.3852%

Class russia : (5265/8974) -> accuracy: 58.6695%

Class us : (5091/8947) -> accuracy: 56.9018%

Class france : (4080/8904) -> accuracy: 45.8221%

DEV accuracy on epoch 23/30 in train step 672 = 55.4311%

Dev loss average for this epoch is 1.2816 and average acc is 55.4311

Class turkey : (5652/9042) -> accuracy: 62.5083%

Class germany: (4638/9133) -> accuracy: 50.7829%

Class russia : (6062/8974) -> accuracy: 67.5507%

Class us : (5150/8947) -> accuracy: 57.5612%

Class france : (3442/8904) -> accuracy: 38.6568%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2239 and average acc is 61.8469

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Epoch: 24/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 24/30 in train step 337 = 55.3600%

Dev loss average for this epoch is 1.2880 and average acc is 55.3600

Class turkey : (5515/9042) -> accuracy: 60.9931%

Class germany: (5056/9133) -> accuracy: 55.3597%

Class russia : (5262/8974) -> accuracy: 58.6361%

Class us : (5049/8947) -> accuracy: 56.4323%

Class france : (4030/8904) -> accuracy: 45.2606%

DEV accuracy on epoch 24/30 in train step 672 = 55.3556%

Dev loss average for this epoch is 1.2850 and average acc is 55.3556

Class turkey : (5727/9042) -> accuracy: 63.3378%

Class germany: (4674/9133) -> accuracy: 51.1771%

Class russia : (6254/8974) -> accuracy: 69.6902%

Class us : (5067/8947) -> accuracy: 56.6335%

Class france : (3188/8904) -> accuracy: 35.8041%

Epoch run time: 00:11:31

Train average loss for this epoch is 1.2209 and average acc is 62.0768

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Epoch: 25/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 25/30 in train step 337 = 55.3378%

Dev loss average for this epoch is 1.2937 and average acc is 55.3378

Class turkey : (5369/9042) -> accuracy: 59.3785%

Class germany: (5155/9133) -> accuracy: 56.4437%

Class russia : (5445/8974) -> accuracy: 60.6753%

Class us : (5000/8947) -> accuracy: 55.8847%

Class france : (3933/8904) -> accuracy: 44.1712%

DEV accuracy on epoch 25/30 in train step 672 = 55.3667%

Dev loss average for this epoch is 1.2899 and average acc is 55.3667

Class turkey : (5587/9042) -> accuracy: 61.7894%

Class germany: (4470/9133) -> accuracy: 48.9434%

Class russia : (6474/8974) -> accuracy: 72.1417%

Class us : (4993/8947) -> accuracy: 55.8064%

Class france : (3391/8904) -> accuracy: 38.0840%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2187 and average acc is 62.3193

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Epoch: 26/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 26/30 in train step 337 = 54.8933%

Dev loss average for this epoch is 1.2964 and average acc is 54.8933

Class turkey : (5364/9042) -> accuracy: 59.3232%

Class germany: (5566/9133) -> accuracy: 60.9438%

Class russia : (5036/8974) -> accuracy: 56.1177%

Class us : (4823/8947) -> accuracy: 53.9063%

Class france : (3913/8904) -> accuracy: 43.9465%

DEV accuracy on epoch 26/30 in train step 672 = 55.4756%

Dev loss average for this epoch is 1.2818 and average acc is 55.4756

Class turkey : (5795/9042) -> accuracy: 64.0898%

Class germany: (4421/9133) -> accuracy: 48.4069%

Class russia : (6004/8974) -> accuracy: 66.9044%

Class us : (5235/8947) -> accuracy: 58.5112%

Class france : (3509/8904) -> accuracy: 39.4093%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2298 and average acc is 61.6222

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Epoch: 27/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 27/30 in train step 337 = 55.1756%

Dev loss average for this epoch is 1.2910 and average acc is 55.1756

Class turkey : (5270/9042) -> accuracy: 58.2836%

Class germany: (5282/9133) -> accuracy: 57.8342%

Class russia : (5142/8974) -> accuracy: 57.2989%

Class us : (5141/8947) -> accuracy: 57.4606%

Class france : (3994/8904) -> accuracy: 44.8562%

DEV accuracy on epoch 27/30 in train step 672 = 54.9200%

Dev loss average for this epoch is 1.2969 and average acc is 54.9200

Class turkey : (5739/9042) -> accuracy: 63.4705%

Class germany: (4159/9133) -> accuracy: 45.5382%

Class russia : (6277/8974) -> accuracy: 69.9465%

Class us : (5257/8947) -> accuracy: 58.7571%

Class france : (3282/8904) -> accuracy: 36.8598%

Epoch run time: 00:11:36

Train average loss for this epoch is 1.2140 and average acc is 62.6802

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Epoch: 28/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 28/30 in train step 337 = 55.1444%

Dev loss average for this epoch is 1.2950 and average acc is 55.1444

Class turkey : (5378/9042) -> accuracy: 59.4780%

Class germany: (5327/9133) -> accuracy: 58.3269%

Class russia : (5087/8974) -> accuracy: 56.6860%

Class us : (5061/8947) -> accuracy: 56.5664%

Class france : (3962/8904) -> accuracy: 44.4969%

DEV accuracy on epoch 28/30 in train step 672 = 55.0156%

Dev loss average for this epoch is 1.2908 and average acc is 55.0156

Class turkey : (5685/9042) -> accuracy: 62.8733%

Class germany: (4132/9133) -> accuracy: 45.2425%

Class russia : (5878/8974) -> accuracy: 65.5003%

Class us : (5317/8947) -> accuracy: 59.4277%

Class france : (3745/8904) -> accuracy: 42.0597%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2131 and average acc is 62.8081

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Epoch: 29/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 29/30 in train step 337 = 55.3422%

Dev loss average for this epoch is 1.2917 and average acc is 55.3422

Class turkey : (5422/9042) -> accuracy: 59.9646%

Class germany: (5324/9133) -> accuracy: 58.2941%

Class russia : (5222/8974) -> accuracy: 58.1903%

Class us : (4817/8947) -> accuracy: 53.8393%

Class france : (4119/8904) -> accuracy: 46.2601%

DEV accuracy on epoch 29/30 in train step 672 = 55.3378%

Dev loss average for this epoch is 1.2869 and average acc is 55.3378

Class turkey : (5607/9042) -> accuracy: 62.0106%

Class germany: (4192/9133) -> accuracy: 45.8995%

Class russia : (6014/8974) -> accuracy: 67.0158%

Class us : (5206/8947) -> accuracy: 58.1871%

Class france : (3883/8904) -> accuracy: 43.6096%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2100 and average acc is 62.9521

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Epoch: 30/30 ---- best so far on epoch 20: acc=55.8667%

DEV accuracy on epoch 30/30 in train step 337 = 55.3756%

Dev loss average for this epoch is 1.2935 and average acc is 55.3756

Class turkey : (5578/9042) -> accuracy: 61.6899%

Class germany: (5399/9133) -> accuracy: 59.1153%

Class russia : (5181/8974) -> accuracy: 57.7335%

Class us : (4529/8947) -> accuracy: 50.6203%

Class france : (4232/8904) -> accuracy: 47.5292%

DEV accuracy on epoch 30/30 in train step 672 = 55.5933%

Dev loss average for this epoch is 1.2888 and average acc is 55.5933

Class turkey : (5732/9042) -> accuracy: 63.3931%

Class germany: (4652/9133) -> accuracy: 50.9362%

Class russia : (5895/8974) -> accuracy: 65.6898%

Class us : (4952/8947) -> accuracy: 55.3482%

Class france : (3786/8904) -> accuracy: 42.5202%

Epoch run time: 00:11:32

Train average loss for this epoch is 1.2078 and average acc is 63.1891

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\*\*\*Training is complete. Best accuracy 55.8667% at epoch 20/30

\*\*\*Testing...

INFO:tensorflow:Restoring parameters from ../model\_temp/model.ckpt

INFO:tensorflow:Restoring parameters from ../model\_temp/model.ckpt

Test loss average for this epoch is 1.2752 and average acc is 56.1345

Accuracy on test set - (27955/49800) -> accuracy: 56.1345%

Class turkey : (6535/9852) -> accuracy: 66.3317%

Class germany: (5511/10049) -> accuracy: 54.8413%

Class russia : (6564/10059) -> accuracy: 65.2550%

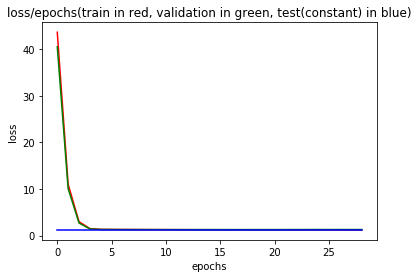
Class us : (5426/9936) -> accuracy: 54.6095%

Class france : (3919/9904) -> accuracy: 39.5699%

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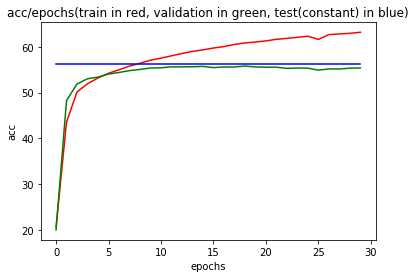
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End summary ----------------------

data:

DATA\_FILE\_PATH is ../input/5way\_tur\_ger\_rus\_fra\_usa100K\_25-150.txt

MINIMUM\_ROW\_LENGTH is 25

MAXIMUM\_ROW\_LENGTH is 150

COUNT\_WORD is 20

lines\_per\_class is 100000

number of classes is 5

Total data size is 500000

embedding:

EMB\_FILE\_PATH ../input/glove.6B.300d.txt

EMB\_DIM 300

EMB\_WORDS\_COUNT 400001

run config:

EPOCHS 30

evaluating on dev data 2 times per epoch

KEEP\_PROB 0.15

BATCH\_SIZE 600

LSTM\_HIDDEN\_UNITS 75

LSTM\_CELL\_TYPE GRU

optimizer is adamOptimizer - learn rate: 0.001

model:

USE\_TMP\_FOLDER True

mdl\_path ../model\_temp/model.ckpt

results:

best training acc at epoch=20 is 55.8667

testing acc 56.1345

Time(HH:MM:SS): 06:24:27

Leaving function \_\_main\_\_