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: (200, 150)

input\_labels\_batch shape: (200, 5)

gru\_forward\_cell units: 100

gru\_backward\_cell units: 100

the next vars will be regularized:[<tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0' shape=(400, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0' shape=(400, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_4/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0' shape=(400, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0' shape=(400, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/kernel:0' shape=(200, 200) dtype=float32\_ref>, <tf.Variable 'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/candidate/kernel:0' shape=(200, 100) dtype=float32\_ref>, <tf.Variable 'weight:0' shape=(200, 5) dtype=float32\_ref>]

---vars name and shapes---

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(400), Dimension(200)]), 80000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(400), Dimension(100)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_4/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/multi\_rnn\_cell/cell\_4/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/kernel:0', TensorShape([Dimension(400), Dimension(200)]), 80000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/kernel:0', TensorShape([Dimension(400), Dimension(100)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_0/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_1/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_2/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_3/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/kernel:0', TensorShape([Dimension(200), Dimension(200)]), 40000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/gates/bias:0', TensorShape([Dimension(200)]), 200)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/candidate/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/multi\_rnn\_cell/cell\_4/gru\_cell/candidate/bias:0', TensorShape([Dimension(100)]), 100)

(u'weight:0', TensorShape([Dimension(200), Dimension(5)]), 1000)

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

total PARAM 724,005

---done vars---

Epoch: 1/10 ---- best so far on epoch 0: acc=0.0000%

DEV accuracy on epoch 1/10 in train step 1012 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

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

INFO:root: Best accuracy 19.9067% at epoch 1/10 (8958/45000)

DEV accuracy on epoch 1/10 in train step 2022 = 19.7911%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (8906/8906) -> accuracy: 100.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

Epoch run time: 01:00:29

###################################################################################################

Epoch: 2/10 ---- best so far on epoch 1: acc=19.9067%

DEV accuracy on epoch 2/10 in train step 1012 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

DEV accuracy on epoch 2/10 in train step 2022 = 19.7911%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (8906/8906) -> accuracy: 100.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

Epoch run time: 01:00:09

###################################################################################################

Epoch: 3/10 ---- best so far on epoch 1: acc=19.9067%

DEV accuracy on epoch 3/10 in train step 1012 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

DEV accuracy on epoch 3/10 in train step 2022 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

Epoch run time: 01:00:08

###################################################################################################

Epoch: 4/10 ---- best so far on epoch 1: acc=19.9067%

DEV accuracy on epoch 4/10 in train step 1012 = 20.0556%

Class turkey : (9025/9025) -> accuracy: 100.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

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

INFO:root: Best accuracy 20.0556% at epoch 4/10 (9025/45000)

DEV accuracy on epoch 4/10 in train step 2022 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

Epoch run time: 01:00:07

###################################################################################################

Epoch: 5/10 ---- best so far on epoch 4: acc=20.0556%

DEV accuracy on epoch 5/10 in train step 1012 = 20.0556%

Class turkey : (9025/9025) -> accuracy: 100.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

DEV accuracy on epoch 5/10 in train step 2022 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

Epoch run time: 01:00:04

###################################################################################################

Epoch: 6/10 ---- best so far on epoch 4: acc=20.0556%

DEV accuracy on epoch 6/10 in train step 1012 = 20.0556%

Class turkey : (9025/9025) -> accuracy: 100.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

DEV accuracy on epoch 6/10 in train step 2022 = 19.7911%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (8906/8906) -> accuracy: 100.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

Epoch run time: 01:00:07

###################################################################################################

Epoch: 7/10 ---- best so far on epoch 4: acc=20.0556%

DEV accuracy on epoch 7/10 in train step 1012 = 20.0556%

Class turkey : (9025/9025) -> accuracy: 100.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

DEV accuracy on epoch 7/10 in train step 2022 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

Epoch run time: 01:00:07

###################################################################################################

Epoch: 8/10 ---- best so far on epoch 4: acc=20.0556%

DEV accuracy on epoch 8/10 in train step 1012 = 20.0556%

Class turkey : (9025/9025) -> accuracy: 100.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

DEV accuracy on epoch 8/10 in train step 2022 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

Epoch run time: 01:00:05

###################################################################################################

Epoch: 9/10 ---- best so far on epoch 4: acc=20.0556%

DEV accuracy on epoch 9/10 in train step 1012 = 20.0556%

Class turkey : (9025/9025) -> accuracy: 100.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

DEV accuracy on epoch 9/10 in train step 2022 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

Epoch run time: 01:00:06

###################################################################################################

Epoch: 10/10 ---- best so far on epoch 4: acc=20.0556%

DEV accuracy on epoch 10/10 in train step 1012 = 20.0556%

Class turkey : (9025/9025) -> accuracy: 100.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (0/8958) -> accuracy: 0.0000%

DEV accuracy on epoch 10/10 in train step 2022 = 19.9067%

Class turkey : (0/9025) -> accuracy: 0.0000%

Class germany: (0/8906) -> accuracy: 0.0000%

Class russia : (0/9026) -> accuracy: 0.0000%

Class us : (0/9085) -> accuracy: 0.0000%

Class france : (8958/8958) -> accuracy: 100.0000%

Epoch run time: 01:00:06

###################################################################################################

\*\*\*Training is complete. Best accuracy 20.0556% at epoch 4/10

\*\*\*Testing...

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

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

Accuracy on test set - (9957/50000) -> accuracy: 19.9140%

Class turkey : (9957/9957) -> accuracy: 100.0000%

Class germany: (0/9905) -> accuracy: 0.0000%

Class russia : (0/10046) -> accuracy: 0.0000%

Class us : (0/10019) -> accuracy: 0.0000%

Class france : (0/10073) -> accuracy: 0.0000%

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 10

evaluating on dev data 2 times per epoch

KEEP\_PROB 0.5

BATCH\_SIZE 200

LSTM\_HIDDEN\_UNITS 100

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=4 is 20.0556

testing acc 19.9140

Time(HH:MM:SS): 10:06:06

Leaving function \_\_main\_\_