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)

data(after embedding) shape: (200, 150, 300)

gru\_forward\_cell units: 100

gru\_forward\_cell2 units: 100

multi\_forward\_cell: 2 cells

gru\_backward\_cell units: 100

gru\_backward\_cell2 units: 100

multi\_backward\_cell: 2 cells

---vars name and shapes---

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/kernel:0', TensorShape([Dimension(400), Dimension(300)]), 120000)

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/bias:0', TensorShape([Dimension(300)]), 300)

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

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

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

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

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

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

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

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

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/attention/attn\_w:0', TensorShape([Dimension(1), Dimension(1), Dimension(100), Dimension(100)]), 10000)

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/attention/attn\_v:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/attention/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/attention/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/attn\_output\_projection/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/fw/attention\_cell\_wrapper/attn\_output\_projection/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/attention\_cell\_wrapper/kernel:0', TensorShape([Dimension(400), Dimension(300)]), 120000)

(u'bidirectional\_rnn/bw/attention\_cell\_wrapper/bias:0', TensorShape([Dimension(300)]), 300)

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

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

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

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

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

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

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

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

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(u'bidirectional\_rnn/bw/attention\_cell\_wrapper/attention/attn\_v:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/attention\_cell\_wrapper/attention/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/attention\_cell\_wrapper/attention/bias:0', TensorShape([Dimension(100)]), 100)

(u'bidirectional\_rnn/bw/attention\_cell\_wrapper/attn\_output\_projection/kernel:0', TensorShape([Dimension(200), Dimension(100)]), 20000)

(u'bidirectional\_rnn/bw/attention\_cell\_wrapper/attn\_output\_projection/bias:0', TensorShape([Dimension(100)]), 100)

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

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

total PARAM 703,405

---done vars---

batches\_num\_train2025

batches\_num\_dev225

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

DEV accuracy on epoch 1/10 in train step 1012 = 50.9333%

Class turkey : (5788/9025) -> accuracy: 64.1330%

Class germany: (4340/8906) -> accuracy: 48.7312%

Class russia : (6140/9026) -> accuracy: 68.0257%

Class us : (3959/9085) -> accuracy: 43.5773%

Class france : (2693/8958) -> accuracy: 30.0625%

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

INFO:root: Best accuracy 50.9333% at epoch 1/10 (22920/45000)

DEV accuracy on epoch 1/10 in train step 2022 = 53.4133%

Class turkey : (5382/9025) -> accuracy: 59.6343%

Class germany: (4382/8906) -> accuracy: 49.2028%

Class russia : (5179/9026) -> accuracy: 57.3787%

Class us : (4909/9085) -> accuracy: 54.0341%

Class france : (4184/8958) -> accuracy: 46.7069%

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

INFO:root: Best accuracy 53.4133% at epoch 1/10 (24036/45000)

Epoch run time: 01:10:43

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Epoch: 2/10 ---- best so far on epoch 1: acc=53.4133%

DEV accuracy on epoch 2/10 in train step 1012 = 54.5333%

Class turkey : (5945/9025) -> accuracy: 65.8726%

Class germany: (4224/8906) -> accuracy: 47.4287%

Class russia : (5904/9026) -> accuracy: 65.4110%

Class us : (4706/9085) -> accuracy: 51.7997%

Class france : (3761/8958) -> accuracy: 41.9848%

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

INFO:root: Best accuracy 54.5333% at epoch 2/10 (24540/45000)

DEV accuracy on epoch 2/10 in train step 2022 = 55.1578%

Class turkey : (5598/9025) -> accuracy: 62.0277%

Class germany: (4716/8906) -> accuracy: 52.9531%

Class russia : (5082/9026) -> accuracy: 56.3040%

Class us : (4934/9085) -> accuracy: 54.3093%

Class france : (4491/8958) -> accuracy: 50.1340%

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

INFO:root: Best accuracy 55.1578% at epoch 2/10 (24821/45000)

Epoch run time: 01:10:25

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Epoch: 3/10 ---- best so far on epoch 2: acc=55.1578%

DEV accuracy on epoch 3/10 in train step 1012 = 55.9089%

Class turkey : (5910/9025) -> accuracy: 65.4848%

Class germany: (4632/8906) -> accuracy: 52.0099%

Class russia : (5733/9026) -> accuracy: 63.5165%

Class us : (4587/9085) -> accuracy: 50.4898%

Class france : (4297/8958) -> accuracy: 47.9683%

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

INFO:root: Best accuracy 55.9089% at epoch 3/10 (25159/45000)

DEV accuracy on epoch 3/10 in train step 2022 = 55.6600%

Class turkey : (5521/9025) -> accuracy: 61.1745%

Class germany: (4867/8906) -> accuracy: 54.6486%

Class russia : (5158/9026) -> accuracy: 57.1460%

Class us : (4981/9085) -> accuracy: 54.8266%

Class france : (4520/8958) -> accuracy: 50.4577%

Epoch run time: 01:10:24

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Epoch: 4/10 ---- best so far on epoch 3: acc=55.9089%

DEV accuracy on epoch 4/10 in train step 1012 = 56.3467%

Class turkey : (5895/9025) -> accuracy: 65.3186%

Class germany: (4744/8906) -> accuracy: 53.2675%

Class russia : (5537/9026) -> accuracy: 61.3450%

Class us : (4646/9085) -> accuracy: 51.1392%

Class france : (4534/8958) -> accuracy: 50.6140%

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

INFO:root: Best accuracy 56.3467% at epoch 4/10 (25356/45000)

DEV accuracy on epoch 4/10 in train step 2022 = 56.2289%

Class turkey : (5614/9025) -> accuracy: 62.2050%

Class germany: (4989/8906) -> accuracy: 56.0184%

Class russia : (5623/9026) -> accuracy: 62.2978%

Class us : (4780/9085) -> accuracy: 52.6142%

Class france : (4297/8958) -> accuracy: 47.9683%

Epoch run time: 01:10:23

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Epoch: 5/10 ---- best so far on epoch 4: acc=56.3467%

DEV accuracy on epoch 5/10 in train step 1012 = 56.2222%

Class turkey : (5956/9025) -> accuracy: 65.9945%

Class germany: (4543/8906) -> accuracy: 51.0106%

Class russia : (5578/9026) -> accuracy: 61.7992%

Class us : (4594/9085) -> accuracy: 50.5669%

Class france : (4629/8958) -> accuracy: 51.6745%

DEV accuracy on epoch 5/10 in train step 2022 = 56.1022%

Class turkey : (5717/9025) -> accuracy: 63.3463%

Class germany: (4954/8906) -> accuracy: 55.6254%

Class russia : (5403/9026) -> accuracy: 59.8604%

Class us : (4684/9085) -> accuracy: 51.5575%

Class france : (4488/8958) -> accuracy: 50.1005%

Epoch run time: 01:10:21

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Epoch: 6/10 ---- best so far on epoch 4: acc=56.3467%

DEV accuracy on epoch 6/10 in train step 1012 = 56.2733%

Class turkey : (5775/9025) -> accuracy: 63.9889%

Class germany: (4577/8906) -> accuracy: 51.3923%

Class russia : (5592/9026) -> accuracy: 61.9544%

Class us : (4633/9085) -> accuracy: 50.9961%

Class france : (4746/8958) -> accuracy: 52.9806%

DEV accuracy on epoch 6/10 in train step 2022 = 56.2089%

Class turkey : (5892/9025) -> accuracy: 65.2853%

Class germany: (4839/8906) -> accuracy: 54.3342%

Class russia : (5464/9026) -> accuracy: 60.5362%

Class us : (4694/9085) -> accuracy: 51.6676%

Class france : (4405/8958) -> accuracy: 49.1739%

Epoch run time: 01:10:20

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Epoch: 7/10 ---- best so far on epoch 4: acc=56.3467%

DEV accuracy on epoch 7/10 in train step 1012 = 56.2133%

Class turkey : (5795/9025) -> accuracy: 64.2105%

Class germany: (4690/8906) -> accuracy: 52.6611%

Class russia : (5491/9026) -> accuracy: 60.8354%

Class us : (4664/9085) -> accuracy: 51.3374%

Class france : (4656/8958) -> accuracy: 51.9759%

DEV accuracy on epoch 7/10 in train step 2022 = 56.0644%

Class turkey : (6081/9025) -> accuracy: 67.3795%

Class germany: (4829/8906) -> accuracy: 54.2219%

Class russia : (5577/9026) -> accuracy: 61.7882%

Class us : (4428/9085) -> accuracy: 48.7397%

Class france : (4314/8958) -> accuracy: 48.1581%

Epoch run time: 01:10:22

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