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Task #	Network	Accuracy	Answer
Model 1	LSTM	0.7132	gloriously reborn heave reborn dimness let hearken reborn words mercy stain words continually words reborn reborn fire-trumpets mercy sigh terrific stain reborn mistrusted exhale bent mercy hearken room stain reborn reborn stain well-gray everything reborn trades reborn stain stain eighteen stain has fierceness mercy homes mercy third upper impalpable ratified heave reborn words blooming dirges dimness stain mercy reborn stain ship-yards stripped stain mercy talks reborn seven mercy mercy stain bent stain reborn stain mercy stain bent stain stain stain words talkers awake mercy stain mercy grander edifice stain mercy 'toffile citadel wind bent harm helmsman ship-yards stain stain only
Model 2.1	LSTM	0.8084	перехитрил списывал испачканы списывал я девушек девушек списывал понравилось колени кем понравилось девушек понравилось списывал списывал одно одно колени одно одно кем списывал рост одно раздеваюсь колени девушек не кем списывал списывал кем девушек девушек следующим списывал девушек списывал кем кем девушек кем одно пустая колени предвидел колени потерянной девушек одно обожает испачканы списывал понравилось девушек лучший я кем колени списывал кем предвидел который школу кем колени ясно списывал признателен колени колени кем раздеваюсь кем списывал кем колени кем раздеваюсь кем кем кем понравилось одни видно колени кем колени большие пушки кем колени могу хозяин

			сердитесь раздеваясь следующим незастрахована предвидел который кем кем спим
Model 2.2	LSTM	0.9595	yards yards sweep smell sweep can sweep sweep sweep blinked idea tea blinked sweep blinked sweep sweep idea idea idea idea idea tea sweep adult idea crazy idea sweep stain tea sweep sweep tea sweep sweep yards sweep sweep sweep tea tea sweep tea idea ranch idea switch idea cops sweep idea stain smell sweep blinked sweep dirges can tea idea sweep tea switch yards icelandic tea idea up sweep tv idea idea tea crazy tea sweep tea idea tea crazy tea tea tea blinked mom yards idea tea idea unmarried cash tea idea boston cops cops crazy yards shaving switch yards tea tea yards

\*The data set is too small, and the training is too long, and we couldn't get better results because of that.

\*We tried to create the model via Google Colab and it didn't fit our environment, so we had to re-run and re-create the model on our pc.

\*The model are too heavy' so they are stored in Alex's drive. The data file is there too, because we have added some poems to it.

\*The translation got longer, we guess since its some words can have a 2 word meaning translation.

**The drive link:**

<https://drive.google.com/open?id=14GmCuHqOtTAeC5z5w9KubuS39rakDSQL>

**Model 1:**

This notebook is open with private outputs. Outputs will not be saved. You can disable this in [Notebook settings](#).

Untitled2.ipynb

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CODE TEXT CELL CELL

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UPLOAD REFRESH

..

drive

sample\_data

Task1Model.h5

Task1Model\_weights.h5

adc.json

```

Epoch 38/50
43427/43427 [=====] - 12s 285us/step - loss: 2.7413 - acc: 0.5198
Epoch 39/50
43427/43427 [=====] - 12s 285us/step - loss: 2.6148 - acc: 0.5427
Epoch 40/50
43427/43427 [=====] - 12s 286us/step - loss: 2.4963 - acc: 0.5607
Epoch 41/50
43427/43427 [=====] - 12s 286us/step - loss: 2.3825 - acc: 0.5808
Epoch 42/50
43427/43427 [=====] - 12s 284us/step - loss: 2.2761 - acc: 0.5995
Epoch 43/50
43427/43427 [=====] - 12s 286us/step - loss: 2.1719 - acc: 0.6180
Epoch 44/50
43427/43427 [=====] - 12s 284us/step - loss: 2.0744 - acc: 0.6317
Epoch 45/50
43427/43427 [=====] - 12s 285us/step - loss: 1.9840 - acc: 0.6480
Epoch 46/50
43427/43427 [=====] - 12s 284us/step - loss: 1.8974 - acc: 0.6619
Epoch 47/50
43427/43427 [=====] - 12s 284us/step - loss: 1.8134 - acc: 0.6776
Epoch 48/50
43427/43427 [=====] - 12s 284us/step - loss: 1.7368 - acc: 0.6899
Epoch 49/50
43427/43427 [=====] - 12s 285us/step - loss: 1.6639 - acc: 0.6998
Epoch 50/50
43427/43427 [=====] - 12s 287us/step - loss: 1.5922 - acc: 0.7132

```

[ ]

## Model 2.1:

lab3deepLearning whitman-clean-processed.txt

part2.py

```

epoch
295
296
297
298
299
300
301
302
303
304
...
verbose=1, batch_size=batch_size)

model.save("task2model2.h5")
else:
    model = load_model("Task2Model2.h5")

poemtransformed = rx.split(" ")
px = []
for each in poemtransformed:
    px.append(Oword_to_number[each])

```

Run: part2

```

17600/18000 [=====>.] - ETA: 1s - loss: 0.1444 - acc: 0.9597
17650/18000 [=====>.] - ETA: 1s - loss: 0.1444 - acc: 0.9597
17700/18000 [=====>.] - ETA: 1s - loss: 0.1444 - acc: 0.9597
17750/18000 [=====>.] - ETA: 1s - loss: 0.1443 - acc: 0.9597
17800/18000 [=====>.] - ETA: 0s - loss: 0.1443 - acc: 0.9597
17850/18000 [=====>.] - ETA: 0s - loss: 0.1444 - acc: 0.9597
17900/18000 [=====>.] - ETA: 0s - loss: 0.1446 - acc: 0.9596
17950/18000 [=====>.] - ETA: 0s - loss: 0.1446 - acc: 0.9596
18000/18000 [=====] - 80s 4ms/step - loss: 0.1448 - acc: 0.9595 - val_loss: 0.9479 - val_acc: 0.8468
too the terrific things you definitely terrific its dressed tight terrific tight everyone definitely curious terrific im defi

```

## Model 2.2:

TranslationHelp.py whitman-clean-processed.txt

part2.py

```

302
303
304
...
px = []
for each in poemtransformed:
    px.append(Oword_to_number[each])

```

Run: part2

```

17400/18000 [=====>.] - ETA: 2s - loss: 0.5351 - acc: 0.8093
17450/18000 [=====>.] - ETA: 2s - loss: 0.5355 - acc: 0.8091
17500/18000 [=====>.] - ETA: 2s - loss: 0.5357 - acc: 0.8089
17550/18000 [=====>.] - ETA: 1s - loss: 0.5359 - acc: 0.8089
17600/18000 [=====>.] - ETA: 1s - loss: 0.5357 - acc: 0.8090
17650/18000 [=====>.] - ETA: 1s - loss: 0.5359 - acc: 0.8090
17700/18000 [=====>.] - ETA: 1s - loss: 0.5361 - acc: 0.8089
17750/18000 [=====>.] - ETA: 1s - loss: 0.5363 - acc: 0.8088
17800/18000 [=====>.] - ETA: 0s - loss: 0.5361 - acc: 0.8089
17850/18000 [=====>.] - ETA: 0s - loss: 0.5364 - acc: 0.8087
17900/18000 [=====>.] - ETA: 0s - loss: 0.5364 - acc: 0.8086
17950/18000 [=====>.] - ETA: 0s - loss: 0.5366 - acc: 0.8085
18000/18000 [=====] - 76s 4ms/step - loss: 0.5371 - acc: 0.8084 - val_loss: 2.2595 - val_acc: 0.6699

```