

# Assignment 9: Generative Models

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**Due** Tuesday by 5:59pm      **Points** 6      **Submitting** a text entry box or a file upload

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## Question 9 (1 point)

How many parameters are there for a Long Short-Term Memory (LSTM) cell where the embeddings from the layer above have 1,024 features per embedding, and the LSTM cell also has 1,024 features?

## Model 9 (5 points)

Please navigate to the following URL to accept the invitation for this Kaggle task:

<https://www.kaggle.com/t/d372b2e587874829a3bbe48b8e0a9abd>

Activate the tensorflow conda environment on your VM (where you installed the kaggle api) and download your data:

```
conda activate py37_tensorflow
```

Download the data and the vocabulary:

```
kaggle competitions download ml530-2021-sp-ptb
```

```
wget --timeout=2 https://www.cross-entropy.net/ML530/ptb-vocabulary.dat
```

Create the tensors and train your model:

```
unzip ml530-2021-sp-ptb.zip
```

```
cd ptb-data
```

```
wget --timeout=2 https://www.cross-entropy.net/ML530/ptb-sentences.py.txt
```

```
wget --timeout=2 https://www.cross-entropy.net/ML530/ptb-tensors.py.txt
```

```
wget --timeout=2 https://www.cross-entropy.net/ML530/ptb-train.py.txt
```

```
python ptb-tensors.py.txt
```

```
python ptb-train.py.txt
```

Upload your predictions:

```
kaggle competitions submit ml530-2021-sp-ptb -f predictions.csv -m "ptb submission"
```