

model1_model2

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ABSTRACTIVE TEXT SUMMARIZATION USING NLP

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HOW TO RUN 1. Run all the cells from PACKAGES to PREDICTION one by one. 2. Go to the FUNCTIONS section of the ipynb. You will find two subsections, each for one model. 3. Run model_execute cells in both subsections to train the model. 4. Run the model_predict cell in both subsections to predict summaries.

1 PACKAGES

```
[1]: import numpy as np
import pandas as pd
import re
import nltk
from nltk.corpus import stopwords
from bs4 import BeautifulSoup
from keras.preprocessing.text import Tokenizer
from tensorflow.keras.preprocessing.sequence import pad_sequences
from tensorflow.keras.layers import Input, LSTM, Embedding, Dense, Concatenate,
    TimeDistributed
from tensorflow.keras.models import Model
from tensorflow.keras.callbacks import EarlyStopping
import warnings
pd.set_option("display.max_colwidth", 200)
warnings.filterwarnings("ignore")
```

```
[2]: !pip install rouge
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-
wheels/public/simple/
Collecting rouge
  Downloading rouge-1.0.1-py3-none-any.whl (13 kB)
Requirement already satisfied: six in /usr/local/lib/python3.9/dist-packages
(from rouge) (1.16.0)
Installing collected packages: rouge
Successfully installed rouge-1.0.1
```

```
[3]: # nltk.download('punkt')
nltk.download('stopwords')
```

```
[nltk_data] Downloading package stopwords to /root/nltk_data...
[nltk_data]   Unzipping corpora/stopwords.zip.
```

```
[3]: True
```

2 READ CSV

```
[4]: def get_data(path, num_rows=100000):
    fr_data = pd.read_csv("Reviews.csv",nrows=num_rows)
    fr_data.rename(columns={'Text': 'text', 'Summary': 'summary'},
                    inplace=True)

    fr_data.drop_duplicates(subset=['text'], inplace=True)
    fr_data.dropna(axis=0, inplace=True)

    # fr_data.head(2)

    return fr_data
```

3 TEXT PREPROCESSING

<https://www.analyticsvidhya.com/blog/2019/06/comprehensive-guide-text-summarization-using-deep-learning-python/>

```
[5]: contraction_mapping = {"ain't": "is not", "aren't": "are not", "can't": "
    ↪ cannot", "'cause": "because", "could've": "could have", "couldn't": "could
    ↪ not",
                                "didn't": "did not", "doesn't": "does not", "don't":
    ↪ "do not", "hadn't": "had not", "hasn't": "has not", "haven't": "have not",
                                "he'd": "he would", "he'll": "he will", "he's": "he
    ↪ is", "how'd": "how did", "how'd'y": "how do you", "how'll": "how will",
    ↪ "how's": "how is",
                                "I'd": "I would", "I'd've": "I would have", "I'll":
    ↪ "I will", "I'll've": "I will have", "I'm": "I am", "I've": "I have", "i'd":
    ↪ "i would",
                                "i'd've": "i would have", "i'll": "i will",
    ↪ "i'll've": "i will have", "i'm": "i am", "i've": "i have", "isn't": "is not",
    ↪ "it'd": "it would",
                                "it'd've": "it would have", "it'll": "it will",
    ↪ "it'll've": "it will have", "it's": "it is", "let's": "let us", "ma'am":
    ↪ "madam",
```

```

        "mayn't": "may not", "might've": "might",
        ↪have", "mightn't": "might not", "mightn't've": "might not have", "must've":
        ↪"must have",
        "mustn't": "must not", "mustn't've": "must not",
        ↪have", "needn't": "need not", "needn't've": "need not have", "o'clock": "of",
        ↪the clock",
        "oughtn't": "ought not", "oughtn't've": "ought not",
        ↪have", "shan't": "shall not", "sha'n't": "shall not", "shan't've": "shall",
        ↪not have",
        "she'd": "she would", "she'd've": "she would have",
        ↪"she'll": "she will", "she'll've": "she will have", "she's": "she is",
        "should've": "should have", "shouldn't": "should",
        ↪not", "shouldn't've": "should not have", "so've": "so have", "so's": "so as",
        "this's": "this is", "that'd": "that would",
        ↪"that'd've": "that would have", "that's": "that is", "there'd": "there",
        ↪would",
        "there'd've": "there would have", "there's": "there",
        ↪is", "here's": "here is", "they'd": "they would", "they'd've": "they would",
        ↪have",
        "they'll": "they will", "they'll've": "they will",
        ↪have", "they're": "they are", "they've": "they have", "to've": "to have",
        "wasn't": "was not", "we'd": "we would", "we'd've":
        ↪"we would have", "we'll": "we will", "we'll've": "we will have", "we're":
        ↪"we are",
        "we've": "we have", "weren't": "were not", "what'll":
        ↪ "what will", "what'll've": "what will have", "what're": "what are",
        "what's": "what is", "what've": "what have",
        ↪"when's": "when is", "when've": "when have", "where'd": "where did",
        ↪"where's": "where is",
        "where've": "where have", "who'll": "who will",
        ↪"who'll've": "who will have", "who's": "who is", "who've": "who have",
        "why's": "why is", "why've": "why have", "will've":
        ↪"will have", "won't": "will not", "won't've": "will not have",
        "would've": "would have", "wouldn't": "would not",
        ↪"wouldn't've": "would not have", "y'all": "you all",
        "y'all'd": "you all would", "y'all'd've": "you all",
        ↪would have", "y'all're": "you all are", "y'all've": "you all have",
        "you'd": "you would", "you'd've": "you would have",
        ↪"you'll": "you will", "you'll've": "you will have",
        "you're": "you are", "you've": "you have"}

```

```

[6]: stop_words = set(stopwords.words('english'))

def preprocess_text(text, flag):
    newString = text.lower()
    newString = BeautifulSoup(newString, "lxml").text

```

```

newString = re.sub(r'\([^)]*\)', '', newString)
newString = re.sub("'", '', newString)
newString = ' '.join([contraction_mapping[t] if t in contraction_mapping
→ else t for t in newString.split(" ")])
newString = re.sub(r"'s\b", "", newString)
newString = re.sub("[^a-zA-Z]", " ", newString)
newString = re.sub('[m]{2,}', 'mm', newString)
if not flag:
    tokens = [w for w in newString.split() if not w in stop_words]
else:
    tokens=newString.split()
long_words=[]
for i in tokens:
    if len(i)>1: #removing short word
        long_words.append(i)
return (" ".join(long_words)).strip()

```

```

[7]: def clean_df(df):
    cleaned_text = []
    for t in df['text']:
        cleaned_text.append(preprocess_text(t, 0))

    cleaned_summary = []
    for t in df['summary']:
        cleaned_summary.append(preprocess_text(t, 1))

    print(cleaned_text[:2])
    print(cleaned_summary[:2])

    df['cleaned_text'] = cleaned_text
    df['cleaned_summary'] = cleaned_summary

    df.replace('', np.nan, inplace=True)
    df.dropna(axis=0, inplace=True)

    df.head(2)

    return df

```

4 UNDERSTANDING THE DATA

```

[8]: import matplotlib.pyplot as plt

def data_plt(data):
    text_word_count = []
    summary_word_count = []

```

```

# populate the lists with sentence lengths
for i in data['cleaned_text']:
    text_word_count.append(len(i.split()))

for i in data['cleaned_summary']:
    summary_word_count.append(len(i.split()))

return pd.DataFrame({'text':text_word_count, 'summary':summary_word_count})

```

```

[9]: def summary_lengths(data, summ_len):
    count = 0
    for i in data:
        if(len(i.split()) <= summ_len):
            count += 1
    print("% of summaries with len <", summ_len, ":", count/len(data))

def text_lengths(data, txt_len):
    count = 0
    for i in data:
        if(len(i.split())<=txt_len):
            count += 1
    print("% of texts with len <", txt_len, ":", count/len(data))

```

```

[10]: def create_final_df(data, txt_len, summ_len):
    cleaned_text = np.array(data['cleaned_text'])
    cleaned_summary = np.array(data['cleaned_summary'])

    short_text=[]
    short_summary=[]

    for i in range(len(cleaned_text)):
        if(len(cleaned_summary[i].split())<=summ_len and len(cleaned_text[i].
→split())<=txt_len):
            short_text.append(cleaned_text[i])
            short_summary.append(cleaned_summary[i])

    df=pd.DataFrame({'text':short_text,'summary':short_summary})
    df['summary'] = df['summary'].apply(lambda x : 'sostok ' + x + ' eostok')

    return df

```

5 MODELS

5.1 TRAIN TEST SPLIT

```
[11]: from sklearn.model_selection import train_test_split

def split_df(df):
    return train_test_split(np.array(df['text']), np.array(df['summary']),
                            test_size=0.1, random_state=0, shuffle=True)
```

5.2 Preparing the Tokenizers

```
[12]: def rare_word_coverage(tknzr, threshold):
    # Rare words and their coverage.
    threshold=threshold
    count = 0
    tot_cnt=0
    freq=0
    tot_freq=0

    for key,value in tknzr.word_counts.items():
        tot_cnt=tot_cnt+1
        tot_freq=tot_freq+value
        if(value<threshold):
            count += 1
            freq += value
    print("\t% of rare words in vocabulary:",(count/tot_cnt)*100)
    print("\tTotal Coverage of rare words:",(freq/tot_freq)*100)

    return tot_cnt, count

def x_tokenizer_run(x_train, x_validate, max_txt_len):
    #prepare a tokenizer for 'text' on training data
    x_tokenizer = Tokenizer()
    x_tokenizer.fit_on_texts(list(x_train))

    total_count, count = rare_word_coverage(x_tokenizer, 4)

    #prepare a tokenizer for reviews on training data
    x_tokenizer = Tokenizer(num_words=total_count-count)
    x_tokenizer.fit_on_texts(list(x_train))

    #convert text sequences into integer sequences
    x_tr_seq    = x_tokenizer.texts_to_sequences(x_train)
    x_val_seq   = x_tokenizer.texts_to_sequences(x_validate)

    #padding zero upto maximum length
    x_train     = pad_sequences(x_tr_seq, maxlen=max_txt_len, padding='post')
```

```

x_validate    =    pad_sequences(x_val_seq, maxlen=max_txt_len, padding='post')

#size of vocabulary ( +1 for padding token)
return x_tokenizer.num_words + 1, x_tokenizer, x_train, x_validate

def y_tokenizer_run(y_train, y_validate, max_summ_len):
    #prepare a tokenizer for 'summary' on training data
    y_tokenizer = Tokenizer()
    y_tokenizer.fit_on_texts(list(y_train))

    total_count, count = rare_word_coverage(y_tokenizer, 6)

    #prepare a tokenizer for reviews on training data
    y_tokenizer = Tokenizer(num_words=total_count-count)
    y_tokenizer.fit_on_texts(list(y_train))

    #convert text sequences into integer sequences
    y_tr_seq    =    y_tokenizer.texts_to_sequences(y_train)
    y_val_seq    =    y_tokenizer.texts_to_sequences(y_validate)

    #padding zero upto maximum length
    y_train     =    pad_sequences(y_tr_seq, maxlen=max_summ_len, padding='post')
    y_validate   =    pad_sequences(y_val_seq, maxlen=max_summ_len, padding='post')

    # Let us check whether word count of start token is equal to length of the
    →training data
    print(y_tokenizer.word_counts['sostok'], len(y_train))

    #size of vocabulary
    return y_tokenizer.num_words +1, y_tokenizer, y_train, y_validate

```

5.3 FINAL CLEAN UP

[13]: *# deleting the rows that contain only START and END tokens - TRAIN*

```

def delete_no_info_rows(x, y):
    idx=[]
    for i in range(len(y)):
        count = 0
        for j in y[i]:
            if j!=0:
                count += 1
        if(count == 2):
            idx.append(i)

    y = np.delete(y, idx, axis=0)

```

```
x = np.delete(x, idx, axis=0)

return x, y
```

5.4 MODEL BUILDING

<https://medium.com/@iit2018056/text-summarization-with-attention-based-networks-8492e9277c0>

Return Sequences = True: LSTM produces the hidden state and cell state for every timestep

Return State = True: LSTM produces the hidden state and cell state of the last timestep only

Stacked LSTM: Stacked LSTM has multiple layers of LSTM stacked on top of each other. This leads to a better representation of the sequence.

```
[15]: from keras import backend as K
from attention import AttentionLayer
# from tensorflow.python.framework.ops import disable_eager_execution

# disable_eager_execution()
K.clear_session()

def create_model(attention_flag):
    global encoder_inputs, decoder_inputs, decoder_outputs, state_h, state_c, \
    ↪dec_emb_layer, encoder_outputs, decoder_lstm, decoder_dense, attn_layer

    # Encoder
    encoder_inputs = Input(shape=(max_text_len,))

    #embedding layer
    enc_emb = Embedding(x_voc, embedding_dim, trainable=True)(encoder_inputs)

    #encoder lstm 1
    encoder_lstm1 = \
    ↪LSTM(latent_dim, return_sequences=True, return_state=True, dropout=0.
    ↪4, recurrent_dropout=0.4)
    encoder_output1, state_h1, state_c1 = encoder_lstm1(enc_emb)

    #encoder lstm 2
    encoder_lstm2 = \
    ↪LSTM(latent_dim, return_sequences=True, return_state=True, dropout=0.
    ↪4, recurrent_dropout=0.4)
    encoder_output2, state_h2, state_c2 = encoder_lstm2(encoder_output1)
    # encoder_outputs, state_h, state_c = encoder_lstm2(encoder_output1)

    #encoder lstm 3
    encoder_lstm3=LSTM(latent_dim, return_state=True, \
    ↪return_sequences=True, dropout=0.4, recurrent_dropout=0.4)
```



```

encoder_outputs, state_h, state_c= encoder_lstm3(encoder_output2)

# Set up the decoder, using `encoder_states` as initial state.
decoder_inputs = Input(shape=(None,))

#embedding layer
dec_emb_layer = Embedding(y_voc, embedding_dim,trainable=True)
dec_emb = dec_emb_layer(decoder_inputs)

decoder_lstm = LSTM(latent_dim, return_sequences=True,
↪return_state=True,dropout=0.4,recurrent_dropout=0.2)
decoder_outputs,decoder_fwd_state, decoder_back_state =
↪decoder_lstm(dec_emb,initial_state=[state_h, state_c])

if attention_flag:
    # Attention Layer
    attn_layer = AttentionLayer(name='attention_layer')
    attn_out, attn_states = attn_layer([encoder_outputs, decoder_outputs])
    # Concat attention input and decoder LSTM output
    decoder_concat_input = Concatenate(axis=-1,
↪name='concat_layer')([decoder_outputs, attn_out])
    #dense layer
    decoder_dense = TimeDistributed(Dense(y_voc, activation='softmax'))
    decoder_outputs = decoder_dense(decoder_concat_input)
else:
    #dense layer
    decoder_dense = TimeDistributed(Dense(y_voc, activation='softmax'))
    decoder_outputs = decoder_dense(decoder_outputs)

return Model([encoder_inputs, decoder_inputs], decoder_outputs)

```

```

[16]: def build_model(attention_flag):
        return create_model(attention_flag)

```

5.5 COMPILE MODEL

```

[17]: def compile_model(model):
        model.compile(optimizer='rmsprop', loss='sparse_categorical_crossentropy')

```

5.6 FIT

```

[18]: def model_fit(model):
        es = EarlyStopping(monitor='val_loss', mode='min', verbose=1,patience=2)

```

```

    return model.fit([x_tr,y_tr[:,:,:-1]], y_tr.reshape(y_tr.shape[0],y_tr.
↪shape[1], 1)[:,:1:], epochs=50, callbacks=[es], batch_size=128,
↪validation_data=([x_val,y_val[:,:,:-1]], y_val.reshape(y_val.shape[0],y_val.
↪shape[1], 1)[:,:1:]))

```

5.7 PLOT HISTORY

```

[1]: from matplotlib import pyplot

def history_plt(history):
    pyplot.plot(history.history['loss'], label='train')
    pyplot.plot(history.history['val_loss'], label='test')
    pyplot.xlabel("Epochs")
    pyplot.ylabel("Loss")
    pyplot.legend()
    pyplot.show()

```

6 PREDICTIONS

```

[20]: def get_word_indexes(x_tokenizer, y_tokenizer):
    return y_tokenizer.index_word, x_tokenizer.index_word, y_tokenizer.word_index

def inference(attention_flag):
    # Encode the input sequence to get the feature vector
    encoder_model = Model(inputs=encoder_inputs, outputs=[encoder_outputs,
↪state_h, state_c])

    # Decoder setup
    # Below tensors will hold the states of the previous time step
    decoder_state_input_h = Input(shape=(latent_dim,))
    decoder_state_input_c = Input(shape=(latent_dim,))
    decoder_hidden_state_input = Input(shape=(max_text_len, latent_dim))

    # Get the embeddings of the decoder sequence
    dec_emb2= dec_emb_layer(decoder_inputs)
    # To predict the next word in the sequence, set the initial states to the
↪states from the previous time step
    decoder_outputs2, state_h2, state_c2 = decoder_lstm(dec_emb2,
↪initial_state=[decoder_state_input_h, decoder_state_input_c])

    if attention_flag:
        #attention inference
        attn_out_inf, attn_states_inf = attn_layer([decoder_hidden_state_input,
↪decoder_outputs2])
        decoder_inf_concat = Concatenate(axis=-1, name='concat')([decoder_outputs2,
↪attn_out_inf])

```

```

    # A dense softmax layer to generate prob dist. over the target vocabulary
    decoder_outputs2 = decoder_dense(decoder_inf_concat)
else:
    # A dense softmax layer to generate prob dist. over the target vocabulary
    decoder_outputs2 = decoder_dense(decoder_outputs2)

# Final decoder model
decoder_model = Model(
    [decoder_inputs] + [decoder_hidden_state_input, decoder_state_input_h,
    ↪ decoder_state_input_c],
    [decoder_outputs2] + [state_h2, state_c2])

return encoder_model, decoder_model

```

```

[21]: def decode_sequence(input_seq, encoder_model, decoder_model, target_word_index,
    ↪ reverse_target_word_index):
    # Encode the input as state vectors.
    e_out, e_h, e_c = encoder_model.predict(input_seq, verbose=0)

    # Generate empty target sequence of length 1.
    target_seq = np.zeros((1,1))

    # Populate the first word of target sequence with the start word.
    target_seq[0, 0] = target_word_index['sostok']

    stop_condition = False
    decoded_sentence = ''
    while not stop_condition:

        output_tokens, h, c = decoder_model.predict([target_seq] + [e_out, e_h,
    ↪ e_c], verbose=0)

        # Sample a token
        sampled_token_index = np.argmax(output_tokens[0, -1, :])
        sampled_token = reverse_target_word_index[sampled_token_index]

        if(sampled_token!='eostok'):
            decoded_sentence += ' '+sampled_token

        # Exit condition: either hit max length or find stop word.
        if (sampled_token == 'eostok' or len(decoded_sentence.split()) >=
    ↪ (max_summary_len-1)):
            stop_condition = True

        # Update the target sequence (of length 1).
        target_seq = np.zeros((1,1))
        target_seq[0, 0] = sampled_token_index

```

```

    # Update internal states
    e_h, e_c = h, c

    return decoded_sentence

```

```

[22]: def seq2summary(input_seq, target_word_index, reverse_target_word_index):
        newString=''
        for i in input_seq:
            if((i!=0 and i!=target_word_index['sostok']) and i!=
↪target_word_index['eostok']):
                newString=newString+reverse_target_word_index[i]+' '
        return newString

def seq2text(input_seq, reverse_source_word_index):
    newString=''
    for i in input_seq:
        if(i!=0):
            newString=newString+reverse_source_word_index[i]+' '
    return newString

```

```

[30]: from nltk.translate.bleu_score import sentence_bleu
from rouge import Rouge
ROUGE = Rouge()

def predict(n, x_tr, y_tr, encoder_model, decoder_model, target_word_index,
↪reverse_target_word_index, reverse_source_word_index):
    bleu, rouge = 0, 0
    for i in range(0,n):
        og_text = seq2text(x_tr[i], reverse_source_word_index)
        og_summ = seq2summary(y_tr[i], target_word_index, reverse_target_word_index)
        pred_summ = decode_sequence(x_tr[i].reshape(1,max_text_len), encoder_model,
↪decoder_model, target_word_index, reverse_target_word_index)
        bleu += sentence_bleu([og_summ],pred_summ)
        rouge += ROUGE.get_scores(hyps=pred_summ, refs=og_summ)[0]["rouge-1"]["f"]
        if (i % 50 == 0):
            print("Text:", og_text)
            print("Original summary:", og_summ)
            print("Predicted summary:", pred_summ)
            print("\n")
    return bleu, rouge

```

```

[28]: def model_predict(attention_flag, n):
        # Predict
        print("Predicting...")
        rev_tgt_wrd_idx, rev_src_wrd_idx, tgt_wrd_idx = get_word_indexes(x_tknzr,
↪y_tknzr)

```

```

enc_model, dec_model = inference(attention_flag)
bleu_score, rouge_score = predict(n, x_tr, y_tr, enc_model, dec_model,
→tgt_wrd_idx, rev_tgt_wrd_idx, rev_src_wrd_idx)

print("BLEU SCORE: %.4f | ROUGE SCORE: %.4f"%(bleu_score/n, rouge_score/n))

```

7 FUNCTIONS

```

[25]: def model_execute(attention_flag):

    global latent_dim, embedding_dim, max_text_len, max_summary_len, x_voc,
→y_voc, x_tknzr, x_tr, x_val, y_tknzr, y_tr, y_val

    # Read CSV File
    print("Reading from file...")
    df = get_data("Reviews.csv", 150000)
    # print(list(df.columns.values))

    # Clean DataFrame
    print("Cleaning text in file...")
    df = clean_df(df)
    # print(list(df.columns.values))

    # Understanding the data
    print("Histogram - Food Reviews Dataset")
    fr_df = data_plt(df)
    fr_df.hist(bins=30)
    plt.show()

    print("FOOD REVIEWS DATASET: ")
    summary_lengths(df['cleaned_summary'], 8)
    text_lengths(df['cleaned_text'], 50)

    # Creating the final dataframe
    print("Creating final df...")
    max_text_len = 50
    max_summary_len = 8
    final_df = create_final_df(df, max_text_len, max_summary_len)
    # print(final_df.head(2))

    # Train Test Split
    print("Splitting data...")
    x_tr, x_val, y_tr, y_val = split_df(final_df)

    # Tokenizing the data
    print("Tokenizing data...")

```

```

print("X Tokenizer: ")
x_voc, x_tknzr, x_tr, x_val = x_tokenizer_run(x_tr, x_val, max_text_len)
print("\tX_vocab = ", x_voc)

print("y Tokenizer: ")
y_voc, y_tknzr, y_tr, y_val = y_tokenizer_run(y_tr, y_val, max_summary_len)
print("\ty_vocab = ", y_voc)

# Final Clean-up
print("Cleaning training and validation data...")
x_tr, y_tr = delete_no_info_rows(x_tr, y_tr)
x_val, y_val = delete_no_info_rows(x_val, y_val)

# Set Model parameters
print("Setting model parameters...")
latent_dim = 300
embedding_dim = 100

# Model Building & Compiling
print("Building and Compiling model... ")
fr_model = build_model(attention_flag)
print(fr_model.summary())
compile_model(fr_model)

# Model Fitting
print("Fitting model...")
history = model_fit(fr_model)
history_plt(history)

```

7.0.1 MODEL-1 (AttentionFlag: False)

```
[26]: model_execute(False)
```

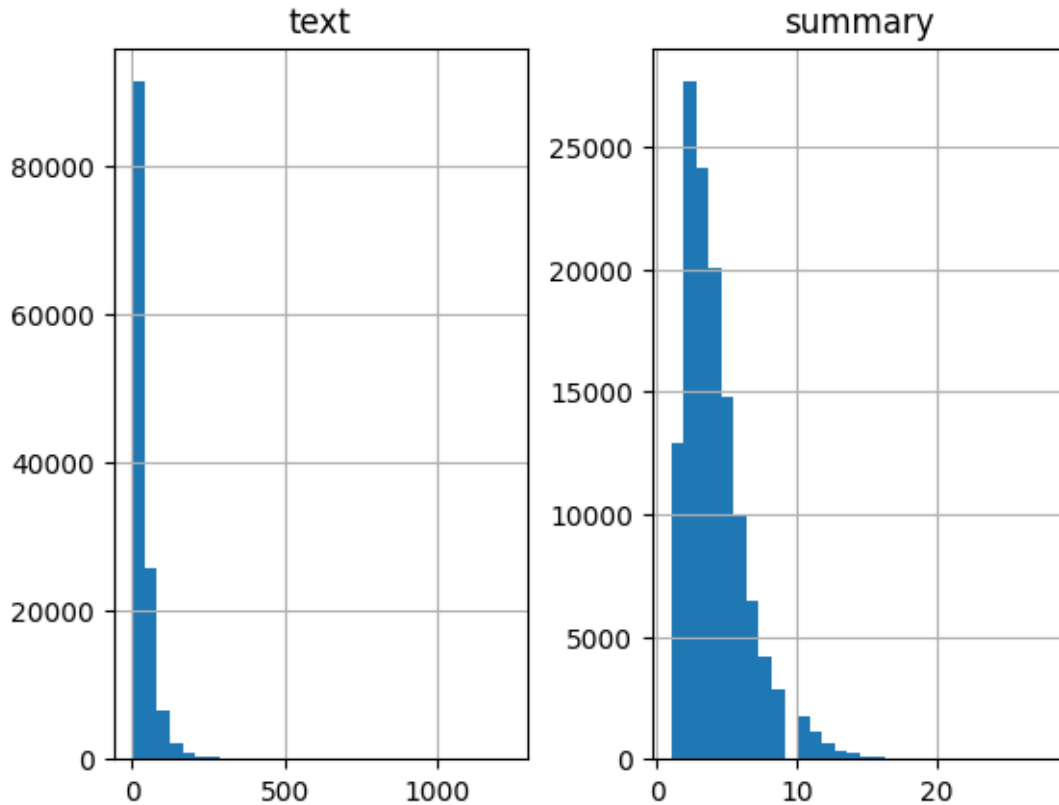
Reading from file...

Cleaning text in file...

```
['bought several vitality canned dog food products found good quality product
looks like stew processed meat smells better labrador finicky appreciates
product better', 'product arrived labeled jumbo salted peanuts peanuts actually
small sized unsalted sure error vendor intended represent product jumbo']
```

```
['good quality dog food', 'not as advertised']
```

Histogram - Food Reviews Dataset



FOOD REVIEWS DATASET:

% of summaries with len < 8 : 0.9428853941049063

% of texts with len < 50 : 0.7766895815676303

Creating final df...

Splitting data...

Tokenizing data...

X Tokenizer:

% of rare words in vocabulary: 65.69576132790601

Total Coverage of rare words: 1.7851696951213896

X_vocab = 14075

y Tokenizer:

% of rare words in vocabulary: 76.56593809593663

Total Coverage of rare words: 3.778434287958601

85689 85689

y_vocab = 3196

Cleaning training and validation data...

Setting model parameters...

Building and Compiling model...

WARNING:tensorflow:Layer lstm will not use cuDNN kernels since it doesn't meet the criteria. It will use a generic GPU kernel as fallback when running on GPU.

WARNING:tensorflow:Layer lstm_1 will not use cuDNN kernels since it doesn't meet

the criteria. It will use a generic GPU kernel as fallback when running on GPU.
 WARNING:tensorflow:Layer lstm_2 will not use cuDNN kernels since it doesn't meet
 the criteria. It will use a generic GPU kernel as fallback when running on GPU.
 WARNING:tensorflow:Layer lstm_3 will not use cuDNN kernels since it doesn't meet
 the criteria. It will use a generic GPU kernel as fallback when running on GPU.

Model: "model"

Layer (type)	Output Shape	Param #	Connected to
input_1 (InputLayer)	[(None, 50)]	0	[]
embedding (Embedding) ['input_1[0][0]']	(None, 50, 100)	1407500	
lstm (LSTM) ['embedding[0][0]']	[(None, 50, 300), (None, 300), (None, 300)]	481200	
input_2 (InputLayer)	[(None, None)]	0	[]
lstm_1 (LSTM)	[(None, 50, 300), (None, 300), (None, 300)]	721200	['lstm[0][0]']
embedding_1 (Embedding) ['input_2[0][0]']	(None, None, 100)	319600	
lstm_2 (LSTM) ['lstm_1[0][0]']	[(None, 50, 300), (None, 300), (None, 300)]	721200	
lstm_3 (LSTM) ['embedding_1[0][0]', 'lstm_2[0][1]', 'lstm_2[0][2]']	[(None, None, 300), (None, 300), (None, 300)]	481200	
time_distributed (TimeDistribu ted) ['lstm_3[0][0]']	(None, None, 3196)	961996	


```

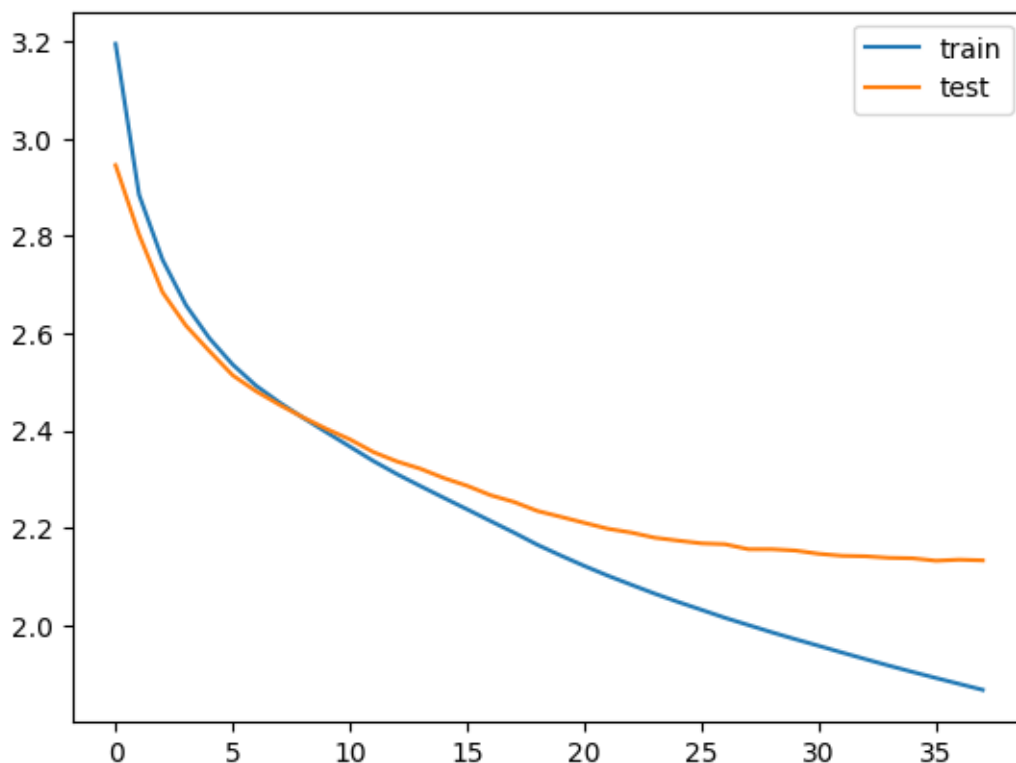
=====
Total params: 5,093,896
Trainable params: 5,093,896
Non-trainable params: 0

-----
None
Fitting model...
Epoch 1/50
658/658 [=====] - 379s 551ms/step - loss: 3.1951 -
val_loss: 2.9456
Epoch 2/50
658/658 [=====] - 329s 500ms/step - loss: 2.8851 -
val_loss: 2.8033
Epoch 3/50
658/658 [=====] - 327s 497ms/step - loss: 2.7518 -
val_loss: 2.6849
Epoch 4/50
658/658 [=====] - 326s 495ms/step - loss: 2.6582 -
val_loss: 2.6160
Epoch 5/50
658/658 [=====] - 326s 496ms/step - loss: 2.5902 -
val_loss: 2.5636
Epoch 6/50
658/658 [=====] - 325s 494ms/step - loss: 2.5358 -
val_loss: 2.5137
Epoch 7/50
658/658 [=====] - 324s 493ms/step - loss: 2.4922 -
val_loss: 2.4809
Epoch 8/50
658/658 [=====] - 325s 494ms/step - loss: 2.4578 -
val_loss: 2.4531
Epoch 9/50
658/658 [=====] - 325s 494ms/step - loss: 2.4266 -
val_loss: 2.4273
Epoch 10/50
658/658 [=====] - 324s 493ms/step - loss: 2.3967 -
val_loss: 2.4036
Epoch 11/50
658/658 [=====] - 324s 493ms/step - loss: 2.3672 -
val_loss: 2.3820
Epoch 12/50
658/658 [=====] - 324s 493ms/step - loss: 2.3376 -
val_loss: 2.3561
Epoch 13/50
658/658 [=====] - 324s 493ms/step - loss: 2.3109 -
val_loss: 2.3369
Epoch 14/50

```

658/658 [=====] - 324s 493ms/step - loss: 2.2863 -
 val_loss: 2.3218
 Epoch 15/50
 658/658 [=====] - 324s 493ms/step - loss: 2.2621 -
 val_loss: 2.3028
 Epoch 16/50
 658/658 [=====] - 324s 492ms/step - loss: 2.2383 -
 val_loss: 2.2867
 Epoch 17/50
 658/658 [=====] - 324s 493ms/step - loss: 2.2142 -
 val_loss: 2.2674
 Epoch 18/50
 658/658 [=====] - 324s 493ms/step - loss: 2.1904 -
 val_loss: 2.2535
 Epoch 19/50
 658/658 [=====] - 324s 493ms/step - loss: 2.1654 -
 val_loss: 2.2349
 Epoch 20/50
 658/658 [=====] - 326s 495ms/step - loss: 2.1433 -
 val_loss: 2.2229
 Epoch 21/50
 658/658 [=====] - 325s 494ms/step - loss: 2.1220 -
 val_loss: 2.2106
 Epoch 22/50
 658/658 [=====] - 325s 494ms/step - loss: 2.1020 -
 val_loss: 2.1985
 Epoch 23/50
 658/658 [=====] - 324s 493ms/step - loss: 2.0834 -
 val_loss: 2.1906
 Epoch 24/50
 658/658 [=====] - 324s 492ms/step - loss: 2.0651 -
 val_loss: 2.1800
 Epoch 25/50
 658/658 [=====] - 325s 494ms/step - loss: 2.0480 -
 val_loss: 2.1740
 Epoch 26/50
 658/658 [=====] - 325s 493ms/step - loss: 2.0317 -
 val_loss: 2.1684
 Epoch 27/50
 658/658 [=====] - 325s 494ms/step - loss: 2.0154 -
 val_loss: 2.1666
 Epoch 28/50
 658/658 [=====] - 324s 492ms/step - loss: 2.0005 -
 val_loss: 2.1563
 Epoch 29/50
 658/658 [=====] - 324s 492ms/step - loss: 1.9856 -
 val_loss: 2.1563
 Epoch 30/50

```
658/658 [=====] - 325s 494ms/step - loss: 1.9714 -  
val_loss: 2.1537  
Epoch 31/50  
658/658 [=====] - 324s 492ms/step - loss: 1.9577 -  
val_loss: 2.1469  
Epoch 32/50  
658/658 [=====] - 324s 493ms/step - loss: 1.9439 -  
val_loss: 2.1428  
Epoch 33/50  
658/658 [=====] - 325s 494ms/step - loss: 1.9303 -  
val_loss: 2.1418  
Epoch 34/50  
658/658 [=====] - 324s 493ms/step - loss: 1.9170 -  
val_loss: 2.1386  
Epoch 35/50  
658/658 [=====] - 327s 496ms/step - loss: 1.9041 -  
val_loss: 2.1377  
Epoch 36/50  
658/658 [=====] - 324s 493ms/step - loss: 1.8917 -  
val_loss: 2.1327  
Epoch 37/50  
658/658 [=====] - 324s 493ms/step - loss: 1.8794 -  
val_loss: 2.1348  
Epoch 38/50  
658/658 [=====] - 324s 493ms/step - loss: 1.8672 -  
val_loss: 2.1334  
Epoch 38: early stopping
```



```
[31]: model_predict(False, len(y_val))
```

Predicting...

Text: cookies delicious period happen organic happen vegan kids cookies cook
 vegan food looking cookies banana pudding gotten around making pudding yet
 cookies almost gone thank goodness subscribe save

Original summary: great tasting cookies not just for kids

Predicted summary: great cookies

Text: present grandmother loves tea pleased get glad bought sent

Original summary: present

Predicted summary: great tea

Text: bought really impressed crunchy nutty good berry flavor ten year old even
 liked plus felt like snacking something halfway healthy going try vanilla flavor
 next

Original summary: very tasty

Predicted summary: good snack

Text: looking cool gift someone special maybe special still need preserve reputation cutting edge trend setter take someone idea pasta well idea anything different find supermarket isle hey cooking shows tv top chef stuff smile complimented great taste gift giving
Original summary: cool gift you look great giving it
Predicted summary: good but not great

Text: used product yet works good concentrate pleased concentrate eliminated tomato
Original summary: brand killer with garden dust
Predicted summary: great product

Text: best food market prefers dry food choices corn gluten tasty healthy worth extra cost
Original summary: great food
Predicted summary: great food

Text: wow fabulous mixed plain yogurt suppose flavored yogurt would tasty well kept meaning sprinkle ice cream used yogurt take work left office kitchen convenient use believe good tastes branch using different ways next jar yum
Original summary: delicious and low fat
Predicted summary: great for

Text: one favorite restaurants serves tea iced kind enough share brand name asked makes wonderful refreshing healthful iced tea highly recommend
Original summary: makes great iced tea
Predicted summary: love this tea

Text: one big problem always send right product happens way return right product ordered lbs honey received brown sugar instead tried return right product got absolutely response none sent countless emails nothing great product great taste company little careful
Original summary: there is only one big problem
Predicted summary: not as pictured

Text: love dark chocolate really enjoyed previous order lindt chocolate bars type prefer available ordered fine bit sweet
Original summary: good but little too sweet
Predicted summary: great dark chocolate

Text: prefer jerky dry texture always hard time finding good one usually

moistened soft chunks meat instead hard strips like old school jerky highly recommend product delicious

Original summary: great jerky

Predicted summary: great jerky

Text: snacks delicious good easy grab bag quickly go flavors great low calorie

Original summary: yumm

Predicted summary: great snack

Text: san francisco bay coffee especially good french roast body flavor french roast usually get keurig reasonably priced would likely change brands

Original summary: san francisco bay coffee

Predicted summary: good coffee

Text: love kashi products one favorites cereals like mix couple brands high fiber low fat breakfast eat fine untill almost everyday especially good sliced fresh strawberries

Original summary: healthy breakfast option

Predicted summary: great cereal

Text: trust bad reviews right got pretzels favorite brand longer carried cost plus remembered trader joe know keep buying taste stale really awful waste money

Original summary: stale and bad

Predicted summary: stale

Text: long standing favorite classic hellman mayonnaise taken next level addition mustard enhances flavor sandwiches salads squeeze cap standing bottle makes much likely used takes little room refrigerator could without product even like mustard would think making ham swiss croissant sandwich without

Original summary: delicious

Predicted summary: great for cooking

Text: stopped drinking regular milk years ago tried several soy brands found better milk vanilla milk choice days recommended family members especially watching fat content food consumption

Original summary: better than milk

Predicted summary: great for milk

Text: kind bars good tough hike food lightweight tasty kind bars best found powerbars full natural ingredients see calories per bar favorite flavors chocolate cherry cashew cranberry almond bad flavor keep work mid morning snack

car time

Original summary: the best bar

Predicted summary: great tasting snack

Text: daughter first introduced crackers originally available whole foods
nearest whole foods thirty miles away long way go crackers found available
amazon com best part come freight free price seems competitive life good way
tried great

Original summary: love these crackers

Predicted summary: great crackers

Text: drank little cold water hot tea later sister tried made like tea hot water
really likes ginger keen stuff neither us enjoyed tea kind harsh tasting heard
ginger helps nausea never get chance try used

Original summary: not that tasty

Predicted summary: very good

Text: like spicy love way better kind get grocery store warm delicious buy

Original summary: amazing

Predicted summary: great spicy

Text: buying target since bars per box looked amazon buy bulk bars typical
healthy granola bars actually good amount chocolate chips chocolate flavor bars
cant really comment nutrition content compared others much info listed granola
bars amazon taste good expect anything soft

Original summary: tough but chocolaty

Predicted summary: not bad

Text: would consider grits connoisseur carolina additionally love yellow grits
best due texture longer grits cook better take full hour make sure start
starting anything else morning great time day little salt pepper butter way best
grits around

Original summary: best grits ever

Predicted summary: great product

Text: signed monthly subscription item price great especially without pay
shipping charges love fact manage subscription skipping month ordering earlier
scheduled amazon excellent getting shipments timely manner newman organics adult
dog food chicken rice formula pound pleased orders amazon extremely pleased
customer service thanks amazon

Original summary: healthy food the dogs love

Predicted summary: best dog food ever

Text: really good hot beverage trans fats tried iced would assume would also good way

Original summary: mocha chai

Predicted summary: good stuff

Text: let tell beef jerky wanting never tasted jerky flavor taste recommend anyone wanting little jerky

Original summary: wow

Predicted summary: good stuff

Text: stumbled dressing costco became huge fan longer stock getting used mix balsamic evo better far

Original summary: salad dressing

Predicted summary: great

Text: cookies unanimously disliked six people office shared found dry tasteless unappetizing texture one even finished entire cookie plus six cookies individually wrapped box way large really tree hugger definitely disappointment recommended

Original summary: will find my calories somewhere else

Predicted summary: not bad

Text: awesome product like garlic infused oil use cooking pasta making salad dressing pizza highly recommended full garlic flavor great price even given gifts garlic loving friends

Original summary: like garlic

Predicted summary: great product

Text: cat became ill like another poster vomiting throughout day concerned also diarrhea never happened repurchasing

Original summary: cat very

Predicted summary: cat food

Text: great self feeding son getting picky still loves pouches plus great company organic uses gmo ingredients

Original summary: great product

Predicted summary: great food

Text: amazing great tasting low calorie carbs got lot packs great deal

Original summary: great
Predicted summary: great

Text: gave gift mother fan vanilla flavored coffee said enjoyed nice vanilla
smell smooth taste said would buy
Original summary: gift
Predicted summary: good coffee

Text: tea horrible taste threw trash thank heavens found another ginger tea
amazon truly wonderful ginger tea
Original summary: bad taste
Predicted summary: not the same

Text: nice combination sweet crunchy hoping find granola little interest without
boring death one good healthy aspects love touch chocolate adds flavor without
going overboard believe chocolate good like
Original summary: not too crunchy not too sweet
Predicted summary: tasty but not great

Text: liked popchips specially taste low calorie fact also serve bags keeps
fresh pack need need snack
Original summary: pretty good snack
Predicted summary: great snack

Text: cereal awesome found sale plastic bag rather stylish box sure fresh
crunchie kind thankfully cannot walk gorilla face grocery store without feeling
good although slightly worried healing affects product sold without exterior
packaging know old saying box table keeps jimmies stable
Original summary: feels good man
Predicted summary: great cereal

Text: larger breed dog lbs loves first seem kind hard problem eating take long
finish nice little snack treat still healthy moms smaller dog lbs also likes
although smaller ones best
Original summary: my dog loves them
Predicted summary: great for training

Text: second bite decide human food tastes exactly like dry dog food smells
plain packaging without nutrition info tip nonetheless bite thing twice decided
look great hit dog owners workplace amazon would consider quit mixing dog people
food grocery

Original summary: pay attention to what you order
Predicted summary: not for my dog

Text: tea nice flavor although wish little stronger brewed way states even tried
letting sit longer get stronger cup work pleased purchase flavor overall
Original summary: like this tea
Predicted summary: good tea

Text: last year england experience try nescafe instant coffee sticks searched
nearly year find us finally decided purchase online delicious like little extra
coffee easy take whenever need little coffee break appreciate able purchase
online close eyes return thanks heidi
Original summary: in coffee sticks the
Predicted summary: great coffee

Text: tasted good dissolved easily simply make nice flavors instant beverages
continue become diverse lazy man found product delicious would also mention
surprised well ginger lemon go together day age every flavor combined least
Original summary: very good
Predicted summary: great for iced

Text: liked fact easily washable measurements outside unfortunately spots got
worse time months started leak bottom needless say cannot recommend
Original summary: disappointing
Predicted summary: not as pictured

Text: thought getting boxes oz instead got package oz bottles would pay store
next time read description carefully beware
Original summary: not worth the price
Predicted summary: not what expected

Text: shipped later chocolate ones thought could worse chocolate wrong horrible
dry mouth add liquid milk coffee turn consistency sawdust truly disgusting
never usually products amazon good really disappointed
Original summary: really think they have star
Predicted summary: awful

Text: happy buy case line little less expensive buying store always wonder
things cost much box either way product arrived timely fashion fresh plus
Original summary: why do these cost so much
Predicted summary: great product

Text: dogs using bones two years best part floss teeth fun receive compliments
dog lovers clean teeth best toy ever
Original summary: best dental for your dogs
Predicted summary: dogs love them

Text: purchased bag dog food broke smaller containers freezing threw bag bags
recalled lot numbers need determine bag list please forward information soon
possible thank
Original summary: is this bag on the recall list
Predicted summary: not the same as pictured

Text: way sweet huge fan haribo gold bears real let large sugar overwhelm trace
sour yuck
Original summary: too sweet not sour at all
Predicted summary: not what expected

Text: found emeril big easy bold coffee one favorites prefer coffees dark bold
fits bill good product
Original summary: bold and flavorful
Predicted summary: bold and bold

Text: barley flour good nutrition goes well whole wheat bread pizza crust
recipes opening store one gallon resealable plastic bag
Original summary: good in whole wheat pizza crust
Predicted summary: great bread

Text: everything need included kit make good wine need basic equipment kit
complete
Original summary: easy wine kit
Predicted summary: great product

Text: used daily basis keep gums healthy teeth clean free
Original summary: keeps you out of the
Predicted summary: great product

Text: coffee great smooth taste enjoyed several cups since discovering amazon
besides drinking used ingredient chocolate cakes superb looking new coffee try
highly recommend try
Original summary: yum

Predicted summary: great coffee

Text: enjoyed flavor orange soda overly sweet orange flavor enough tartness glad hfcs calorie count still quite high natural sugars looking good orange soda try one

Original summary: good tasting orange soda

Predicted summary: good stuff

Text: tried several annie chun soup bowls noodle bowls good easy prepare quick meal

Original summary: fast food at its best

Predicted summary: good soup

Text: pretty big fan traditional tea figured would green tea mango pieces later found reading ingredients herbs like chamomile rose hips etc tea taste horrible thought box sort misleading amazon community aware additions

Original summary: not just green tea and mango

Predicted summary: not what expected

Text: soy milk tastes exactly like soy milks thickness consistency although seems less taste others difference hot beverages like normal soy milk amazing job tastes great one favorite brands

Original summary: made for hot beverages does not

Predicted summary: great for milk

Text: gotten several times last years usually great sometimes little less limey like overall keep ordering

Original summary: love them

Predicted summary: great

Text: tinkyada pastas best gluten free products market taste quality excellent easy cook result consistent taste texture close standard wheat pasta pastas come closer taste texture require little care preparation everyday use tinkyada best bet comes perfect every time require attention cooking rather large window

Original summary: wonderful gluten free pasta

Predicted summary: best gluten free pasta

Text: first time trying popcorn taste hint butter really nice buying bulk one serve portion great money saver

Original summary: great taste

Predicted summary: great popcorn

Text: new favorite strong great flavor usually get flavored coffee went limb
great order today actually
Original summary: wonderful
Predicted summary: great coffee

Text: best love love bagels pass one looking good bread recipe
Original summary: pamela wheat free free bread mix
Predicted summary: best bread mix

Text: really worth every penny made large groom cake first bag ordered used rest
bag making brownies makes best cake brownies ever absolutely never use grocery
store cocoa
Original summary: repeat
Predicted summary: best chocolate ever

Text: normally get goji asian markets cheaper price since get often decided buy
online good packaging great health benefits lovely berries
Original summary: great berries like buy
Predicted summary: great price

Text: stuff great little spicy much order spicier goes back small place used get
tacos kid closed used loved still great
Original summary: awesome taco sauce
Predicted summary: great taste

Text: love bottled water picky drink green white tea version would moon
Original summary: excellent item
Predicted summary: great tea

Text: little pitt bull mix loves food nice size crunching also fits well treat
ball play give cats treat love
Original summary: cats love it too
Predicted summary: my cat loves it

Text: although loved ease price making purchase online arrived half cans
severely dented much almost impossible order definitely reconsider purchase
future
Original summary: amy soup
Predicted summary: great product

Text: corgi kibble one two things breeder recommended unfortunately dog like food would never eat pellet always mix real food even sometimes refuses eat top none pet shops area carry food overall big pita still ordering amazon looking alternative

Original summary: but dog

Predicted summary: great food

Text: amazon yes says purified water ingredient list tell watered juice soon box saw words juice shocked see pretty picture see words juice cause back product amazon would never bought spend dollars ounces tap water ounces organic juice shame

Original summary: buyer beware it is only juice

Predicted summary: not bad

Text: add oz best sausage gravey ever quit selling stores mean stop eating

Original summary: good stuff

Predicted summary: the best

Text: wife problem years one capsules per day appears taken care problem longer needs take iron pills

Original summary: molasses capsules

Predicted summary: great product

Text: initially liked left alone dog chewed thru rope useless lasted less week dog

Original summary: not for chewers

Predicted summary: not for dogs

Text: good tasting caviar think personally like eggs larger caviar eggs small tasty well priced item

Original summary: nice

Predicted summary: good stuff

Text: wanted try decaf coffee dinner found donut house decaf good little leery labelled extra bold light roast sure label meant going strong going taste weak like real strong coffee weak coffee pleasantly surprised taste strong weak goldilocks said right would definitely recommend friend

Original summary: decaf coffee

Predicted summary: good coffee

Text: best real licorice ever period buying case really unique change pace try herb flavored licorice green box deliciously refreshing minty aftertaste panda licorice best

Original summary: simply the best

Predicted summary: best ginger ale

Text: dried cherries taste great eat cereal chutneys dishes buy online never run

Original summary: taste

Predicted summary: great

Text: like noodles noodle tasty delicious also spicy soup excellent enjoyed eat

Original summary: it is delicious

Predicted summary: great noodles

Text: vet turned product elderly cat developed master nobody going force pill throat trying disguise food joke however pill pockets two years gobbled fuss actually reminds pill time likes salmon flavor though

Original summary: my cat says yum

Predicted summary: great food

Text: enjoying melitta coffee evening nice smooth taste none burnt coffee bean taste starbucks used much coffee suggested preparation though used tablespoons eight ounces water like coffee strong bitter worked good cup coffee half half added buying

Original summary: nice smooth coffee

Predicted summary: good coffee

Text: spices herbs company check grocery store except exceptions find cheaper price usually share product ways friends much would paid regular sized jar mccormick schilling linda muir recipe wisconsin state farmer cook book writer

Original summary: good product

Predicted summary: good product

Text: getting harder harder find stores favorite used years make best freezer strawberry jam everyone loves

Original summary: great pectin

Predicted summary: great product

Text: simply best dates ever natural preservatives sugars stopped buying dates discovered

Original summary: the best dates ever had
Predicted summary: best chips ever

Text: whenever pass europe always pick several tins family absolutely love candy
british classic first tried back early sadly easy get hold us unless search
inventory speciality stores hope major chain would start offering regular
Original summary: love it
Predicted summary: love it

Text: wonderful natural snack coming boxes know rice pudding currants future
Original summary: yum
Predicted summary: great snack

Text: people go get elsewhere cost store
Original summary: way over price
Predicted summary: great product

Text: second set bought take morning energy need day good thing take night may
keep night
Original summary: good source of energy
Predicted summary: works great

Text: product good quality great price compared local grocery store used almost
cooking needs
Original summary: good product of great price
Predicted summary: great price

Text: excellent substitute white sugar without side effects love instead high
calories use sweetners kitchen leave white sugar alone great product truly
believe made sweeter er
Original summary: great organic sweetner
Predicted summary: great product

Text: first concerned jelly kind runny opened jar yet considering returning
refund days fridge fine red currant favorite jelly much flavor bit tartness mrs
right drawback small size like see offered oz jar
Original summary: tart tasty
Predicted summary: great product

Text: ridiculous best gourmet ketchup ever tasted pricey wow love stuff would

make great gift someone hard buy loves ketchup yummy
Original summary: heinz no more
Predicted summary: the best

Text: loved granola chocolate pieces great addition wonderful flavor great milk
personal preference little chunkier granola definitely chunky kids wanted let
try package pretty small economical big family cannot imagine anyone liking like
granola chocolate
Original summary: yum yum
Predicted summary: great tasting

Text: provide stay paper one paper always falls area would wind beaches wind
Original summary: bit disappointing
Predicted summary: do not buy

Text: little bit hulls found product lot occasionally get something hard eating
hand full great flavor fresh
Original summary: good product but
Predicted summary: good stuff

Text: arrived safe unbroken despite reviewer opinions love cookies hard find
nearby great way stock
Original summary: butter wafers
Predicted summary: great

Text: enjoyed garlic flavor noodles quite small portion used noodles stir fry
dish broccoli red bell peppers quite tasty
Original summary: nice garlic flavor
Predicted summary: good soup

Text: year old dog starts every day happily happy hips veggie treats loves
chicken apple chicken sweet potato ones say morning coming steps feeding time
zoo race onto cupboard
Original summary: happy hips veggie treats
Predicted summary: great for training

Text: easy say two lb dogs favorite chew toy nylabones kongs thing last months
tried nylabone shapes sizes favorite favorite far issues getting chunks unlike
hollow ones
Original summary: best nylabone for my dogs
Predicted summary: my dogs love these

Text: misleading mine cost big deal packs error

Original summary: you only get

Predicted summary: too expensive

Text: lion bar introduced co worker took first bite hooked year old son hooked well lion bar candy bar whole wide world

Original summary: the

Predicted summary: the best

Text: australian cattle dog loves dry loves canned quality dog food natural ingredients trusting supermarket dog foods anymore innova pricier well worth

Original summary: recall this is quality product

Predicted summary: great food

Text: looking replace twinings earl grey bought store tin found one amazon site nice earl grey fragrant bitter leaves whole close little lighter twinings terrific black tea

Original summary: nice earl grey

Predicted summary: excellent earl grey

Text: candy good family likes better

Original summary: review

Predicted summary: great candy

Text: rum cake awesome cannot get enough good want share anybody else

Original summary: powerful smell awesome taste

Predicted summary: great

Text: macadamia nuts favorite nuts expensive cheap much less expensive used buy nuts came large sealed bag taste fresh delicious keep freezer far freshness disappeared taste great

Original summary: excellent nuts

Predicted summary: great nuts

Text: sure bad reviews coming bought two cases take camping first bottle tasted good last

Original summary: tastes good

Predicted summary: not bad

Text: surprised lack quality taste product thought tasted chemical preservatives
however able use product baking would buy product
Original summary: sun maid apples
Predicted summary: not what expected

Text: received octopus could wait opened one try know say great texture firm
without rubbery taste outstanding sure ordering soon
Original summary: octopus
Predicted summary: great

Text: gave grooming customers reports got back dogs loved natural felt
comfortable giving
Original summary: the dogs love these treats
Predicted summary: dogs love it

Text: dog loves cut smaller pieces chew quite finish one still know helps
digestion sure loves
Original summary: larger than but
Predicted summary: my dog loves these

Text: purchased rocky mountain thunder past directly boyer denver satisfied
product oz bag ordered amazon fresh therefore good product fresh beans oily
appearance beans dry
Original summary: mountain
Predicted summary: great coffee

Text: started feeding formula yorkshire terrier slightly overweight problem
eating surprising picky con food kibble size wish would make healthy weight
formula small dogs
Original summary: wellness healthy weight recipe
Predicted summary: great food

Text: buy american think like salty things buy love licorice never tried dutch
double salt licorice buy want saltiness dead sea packed tiny drop something
vaguely resembling licorice
Original summary: too salty for non dutch
Predicted summary: not what was expecting

Text: pretty close taste freshly opened coconut would like know process
obtaining water understand natural coconut water means tasty juicy bits pulp

product add extra complexity make refreshing beverage fresh coconut jelly like pulpy still tasty

Original summary: natural coconut

Predicted summary: good stuff

Text: received order advertised everything excellent condition cat years old excellent health many thanks wellness grain cat foods

Original summary: excellent service excellent product

Predicted summary: great product

Text: surprise replace coffee enjoy tea afternoons caffeine aftertaste nice sweet flavor

Original summary: surprisingly delicious

Predicted summary: great tea

Text: second order tea come really enjoy tea light enough drink two cups everyday flavor never gets old brown rice real winner compliments green tea perfectly tea seems settling effect stomach enough caffeine give little boost without giving headache

Original summary: nice light tea with earthy flavor

Predicted summary: great tea

Text: got two teas one type iced coffee rest holiday coffees apple cider spicy eggnog gingerbread bait redeeming factor amazon great issued refund

Original summary: not what ordered

Predicted summary: not what expected

Text: used notice energy letdown

Original summary: hour energy

Predicted summary: works

Text: best oatmeal found filling lowest carbs highest fiber protein real ingredients

Original summary: love this oatmeal

Predicted summary: great tasting

Text: drinking cherry sugar kool aid even write diabetic drink gallon water day like grape well cherry stuff awesome seems good true yum

Original summary: very impressed with sugar free kool aid

Predicted summary: great product

Text: really different nylabone shape bone still hard plastic type material
splinter form sharp shards cut dogs mouth catch everything really happy hoping
different material rated hoped
Original summary: no different than any other nylabone
Predicted summary: not for dogs

Text: bitter weak waste money buy something else save money nothing say guess
foam nice look
Original summary: awful
Predicted summary: worst coffee ever

Text: tea great beautiful smoky flavor cannot beat people normally go green tea
want second cup highly recommend tea
Original summary: excellent tasting tea
Predicted summary: great tea

Text: flavor canned expresso better starbucks one thus calories instead product
description say great item expresso lover
Original summary: very smooth taste
Predicted summary: good coffee

Text: love love love iced tea tried lipton cold brew stuff find restaurants
stumbled upon world market hubby fell love strong tasty easy make quality find
favorite restaurants normally add peach syrup make peach iced tea yummm went back
world market buy stock anymore glad amazon carries price bad either
Original summary: love this tea
Predicted summary: love this tea

Text: buy case like previous reviewer family loves drink year round
grandchildren especially expect christmas soooooo yummy
Original summary: scrumptious
Predicted summary: best candy ever

Text: favorite hazelnut coffee generally get grocer per pack per pack
ridiculously overpriced
Original summary: this is great coffee
Predicted summary: great coffee

Text: like always product shipped right away smooth transaction product awesome
use coffee recipies everything needs sweeten love love product auto shippment

save even best part actually good try see
Original summary: great product
Predicted summary: great product

Text: smoothest coffee ever consumed chicory adds boldness yet reduces acidity
caffeine also reduced one drink cup day want side effects coffee purchased
several years though tried blends french market favorite
Original summary: smooth
Predicted summary: great coffee

Text: like bought original chocolate like original better co worker likes
chocolate better reason chocolate version cheaper sure maybe different seller
anyway chocolate price around better original jar last regular peanut butter
Original summary: it is good
Predicted summary: not bad

Text: best gum ever lose flavor softness found one easter kids baskets seen
stores since wish would sell stores
Original summary: by far the best gum ever
Predicted summary: gum

Text: find better tasting soup anywhere initially purchased wife sensitive msg
kinds additives found soups eating keep supply hand family
Original summary: the best in soup
Predicted summary: great soup

Text: favorite type gum wish could get locally got quick much shipping though
Original summary: wish could find it locally
Predicted summary: great gum

Text: supposed purpose soda juice front label kiwi raspberry strawberry juice
concentrates lesser ingredients apple grape juice majority rda vitamin lot
things possible od vitamin bottom line though matter combination juices tastes
like cheap candy pleasant
Original summary: tastes like cheap
Predicted summary: tastes like plastic

Text: disappointed find tea bags packed shipping box tea bags also batch tea
almost without jasmin taste past stash green jasmin tea better
Original summary: short shipped
Predicted summary: tea

Text: right size quick reward treat sorry away long thank understanding excuse
find treat pet always happy tail wag afterwards dogs gave treat woofs must good
Original summary: lamb bites for treats training
Predicted summary: great product

Text: favorite brand jerky never know spicy like spicy jerky please consistent
spices make original spicy sometimes
Original summary: good taste but not consistent too spicy
Predicted summary: great spicy

Text: grew new orleans always hesitant buy anything says new orleans since sure
disappointed lack authenticity cornbread however delicious moist tasty convinced
buy ease make add water fact cholesterol gives homemade taste without fuss
Original summary: just like home
Predicted summary: great taste

Text: strong vanilla flavor tried vanilla flavored coffees starbuck version far
superior chemical vanilla flavor found vanilla coffees flavor coffee beans
vanilla beans one thing cannot drink without sugar reason needs least little
sugar want vanilla flavored coffee one reach searching perfect blend without
vanilla extract flavor great job starbucks
Original summary: excellent choice
Predicted summary: great coffee

Text: nice coffee chocolately hint would def buy wonderful coffee beautiful aroma
Original summary: lovely
Predicted summary: good coffee

Text: seeds get generally big fan frank red hot man ever compliment good
sunflower seed
Original summary: love em
Predicted summary: great

Text: although called peas peas bean outer shell harder beans pigeon peas cooked
smell lemon lime hours come although beans taste lemon lime
Original summary: lemon lime
Predicted summary: not what expected

Text: used items however find jerk sauce best quite peppery

Original summary: great sauces
Predicted summary: great product

Text: happy see list ingredients listing peas broccoli pears thinking package
ingredients larger ingredients listed first ordering see package ingredient list
yes pears majority ingredients common misleading way product description written
Original summary: pears and pears
Predicted summary: not as good as

Text: packaging great perfect size popper got thing like difficult get contents
pour kettle properly without making mess put separate container spout flavor
great
Original summary: perfect portions
Predicted summary: great

Text: brownie one tastes good problem severe gi discomfort follows hours later
know coincidence tried different times random days felt fine otherwise ex work
well fast thinkthin bar grab full magazine rack head head good quality time
toilet enjoy
Original summary: two words time
Predicted summary: great but not great

Text: love product found mixing flavored coffees gave latte effect price
Original summary: cafe addiction
Predicted summary: great coffee

Text: panda express sauces great ordering amazon associates wonderful longer go
store store hunt thanks
Original summary: love this sauce
Predicted summary: best hot sauce

Text: taste rosemary overpowering especially bottom half bag chips sea salt
significantly better tasting
Original summary: overpowering
Predicted summary: good chips

Text: cannot begin tell awful stuff looking peanut butter substitute sorely
disappointed would rather eat nothing
Original summary: it is horrible
Predicted summary: yuck

Text: got hubby real coffee drinker around smell brewing delicious smells sweet kind caramel ish coffee smooth flavor subtle definitely brew keurig machine using filter attachment definitely worth repurchasing
Original summary: smells fantastic when
Predicted summary: great coffee

Text: purchased product us sale son seems like scared previous post mold always double check food stir serve seems like recommend chicken sweet potato dinner
Original summary: son seems to like it
Predicted summary: not bad

Text: think gluten free pasta would like really picky taste texture tinkyada pasta products superb husband eat gluten free foods ate without noticing switch texture remains firm taste good even butter salt tried gf pasta disappointed jump joy tinkyada
Original summary: oh so wonderful
Predicted summary: great pasta

Text: got mine today say ounce boxes ounce boxes im happy almost amount paid ordering
Original summary: wrong size
Predicted summary: too expensive

Text: tried bars good although like peanut butter chocolate chip bars better bars quick easy carry snack go
Original summary: and bars
Predicted summary: great snack

Text: tried many products years far one best overall happy product great mellow flavor something drink day racing
Original summary: first
Predicted summary: great product

Text: course keurig green mtn hot cocoa ultimate convenience frankly flavor hot best description slightly chocolate flavored cardboard everything else fine flavor way chocolate
Original summary: not so hot cocoa
Predicted summary: not hot

Text: noodles better thought instant rice noodles would said positive think rice

noodles bland expected much flavorful soup little flavor could make soup good
fit description would onions unless read package sure describe little taste
tastes bad

Original summary: nothing special

Predicted summary: not bad

Text: step slim jim commercial instructed load false advertising difficult
experience extremely uncomfortable took days wash smell processed dried beef

Original summary: false advertising

Predicted summary: not as pictured

Text: first thought could save money filling keurig cups time bought cups paid
shipping bought coffee put already hole fill little cups day guess work coffee
choice problem get stuck brewer try take still thirty left gone replace

Original summary: not worth the

Predicted summary: not good

Text: skeptical see sort delicate rice noodle made brown rice however able make
using almost identical methods traditional white rice variety worked well flavor
course bit stronger due brown rice content good

Original summary: quite good would certainly buying more

Predicted summary: excellent rice

Text: pro organic price pack cheaper health food stores easy eat many need watch
sugar level good sizes sometimes quite uneven big deal pretty expected lot price
buying elsewhere overall cons really cons wanted make sure parents tried aware
buy regularly really negatives

Original summary: delicious

Predicted summary: good value

Text: grew scotland three daily meals called breakfast dinner tea order yes tea
important last meal day called tea lived usa years great finding easy source
good tea found london cuppa easy affordable source via amazon com taste rich
smooth best tea ever

Original summary: the great taste of london cuppa

Predicted summary: best tea ever

Text: made thanksgiving dinners using seasoning turkey everyone loves glad
finally found

Original summary: salt free and great

Predicted summary: great

Text: found dog food reading reviews earned top category stars premium dry food
picky pomeranian loves

Original summary: top rated

Predicted summary: great food

Text: lot bars brittle biting bar leaves crumbs floor probably buy

Original summary: too hard and brittle

Predicted summary: not bad

Text: almost delicious straight add corn pepper cheese fantastic great base
wonderful main dish

Original summary: will buy it again

Predicted summary: great soup

Text: husbands favorite coffee use loves strong bold coffee fits bill

Original summary: best coffee for the

Predicted summary: great coffee

Text: indian food actual restaurant someones house may want skip packets indian
food velveeta vermont cheddar packets indian food pop tarts french packets
indian food canned tuna grade packets indian food blow well get thing really

Original summary: if you are indian skip

Predicted summary: not bad

Text: yr old lab basenji mix favorite food mix together dried food making single
last week special treat however shipping cheaper go local pet store

Original summary: cheaper at local store

Predicted summary: great for dogs

Text: spoil little italian greyhound rotten although picky treats tend get tired
things little far tired buy lots treats one tried true favorites

Original summary: my loves them

Predicted summary: my dog loves these

Text: try feed son healthy foods regular basis like allow treats problem treats
today made sugar chemicals love annie products since made natural food also like
vegan friendly

Original summary: treat that is not made of chemicals

Predicted summary: great for my little old

Text: expected price paid would get candy sweet tasted licorice bland hard flat
tasting little licorice flavor
Original summary: disappointing
Predicted summary: not what expected

Text: essentially chicken flavored noodle soup made little chicken vegetables
long ramen noodles difficult handle soup high sodium content high saturated fat
minor nutritional value made adding hot water microwave meals available better
attractive feature low cost
Original summary: not recommended
Predicted summary: good but not great

Text: bad price petco petco doesnt carry whitefish sweet potato puppy isnt real
fan whitefish smell bad vet suggested give tummy problems would probably stick
petco since price minus shipping fee products delivered good timely manner
Original summary: please with product
Predicted summary: beware of china

Text: one favorites grove square great cappuccino wonderful flavor need creamer
make taste better love one ones grove square
Original summary: tasty
Predicted summary: delicious

Text: good choice healthy protein satisfying delicious interesting sweet spicy
taste portable protein go energy
Original summary: healthy snack
Predicted summary: great snack

Text: unfortunately gluten free thing trend part lifestyle many darn gluten free
desserts end tasting like cardboard weird gritty taste hesitant trying pie
initially wrong gluten free crust tastes better ordinary pie crusts surprised
really tasty especially warmed hope flavors would love see pumpkin pie
thanksgiving
Original summary: cannot believe it is gluten free
Predicted summary: good gluten free snack

Text: store originally purchased crackers longer carry pleasantly surprised find
amazon received right away excellent condition crackers favorites far highly
recommend well worth
Original summary: crisp
Predicted summary: great product

Text: hello used organic maple syrup grade lemon detox use loose weight clean system recommend product reliable vendor well submitted order less days received product began detox want use product research lemon detox master cleanser see main ingredient detox great organic maple syrup grade level good luck
Original summary: lemon detox
Predicted summary: stevia

Text: really good milk milk would recomend cereal anyone wants eat healthy
Original summary: perfect
Predicted summary: great for milk

Text: year old daughter diagnosed celiac lot research products tried new pillsbury mixes one glad see major manufacturer realize huge market gluten free products especially ones taste good definitely trying products
Original summary: new to celiac
Predicted summary: great tasting

Text: coconut butter tastes awesome way expensive small jar going try another person posted coconut butter review make coconut flakes food processor cacao powder cannot justify spending jar small
Original summary: tasty addition to smoothies etc
Predicted summary: great product

Text: fast great product works well days need extra energy dead lines
Original summary: great product great price
Predicted summary: great product

Text: learn long standing product loyal fan base changing recipe great idea want new product create one removed great deal vitamins nutrition drinking might well add hershey syrup lost loyal customer
Original summary: the new improved
Predicted summary: great product

Text: watching carbs miss egg noodles nada good replacement greatly low carb quite bit less regular pasta need watch serving sizes cooks minutes accepts tomato sauces well different flavours add variety also easy toss butter parmesan seasonings add leftover chicken beef vegetables quick easy meal less carbs
Original summary: great lower carb pasta
Predicted summary: good pasta

BLEU SCORE: 0.1143 | ROUGE SCORE: 0.1582

7.0.2 MODEL-2 (AttentionFlag: True)

```
[32]: model_execute(True) # ~2-3 hrs with GPU / ~ 12 hrs without GPU
```

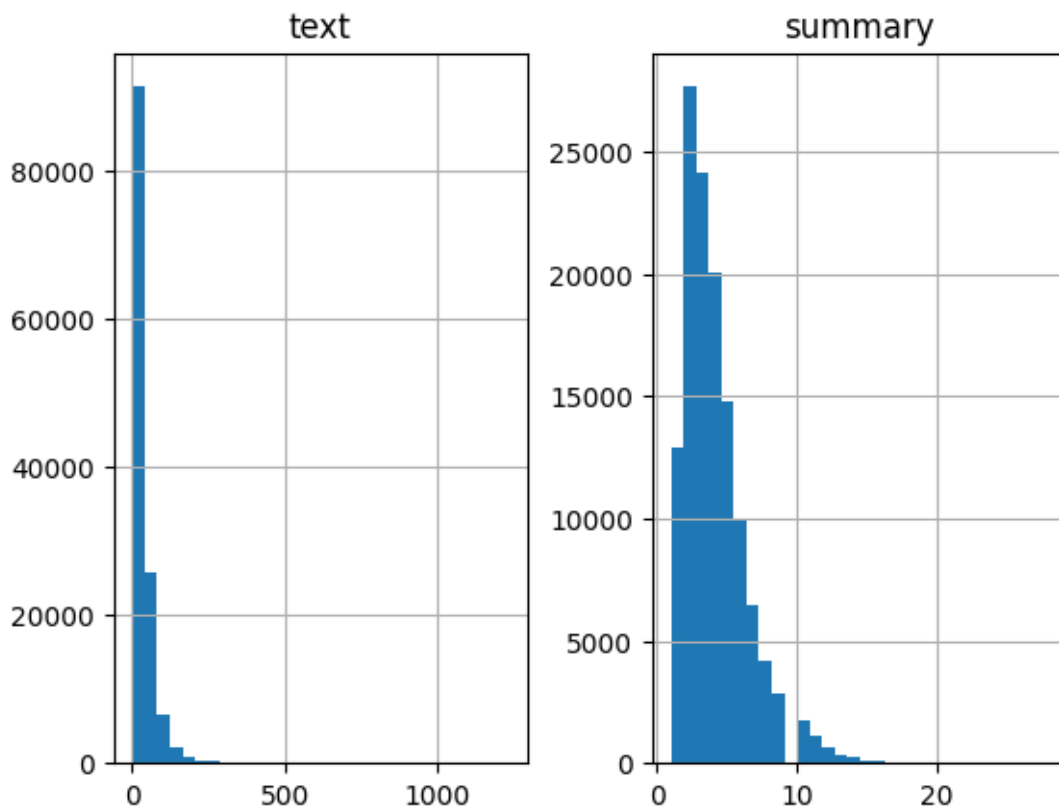
Reading from file...

Cleaning text in file...

```
['bought several vitality canned dog food products found good quality product  
looks like stew processed meat smells better labrador finicky appreciates  
product better', 'product arrived labeled jumbo salted peanuts peanuts actually  
small sized unsalted sure error vendor intended represent product jumbo']
```

```
['good quality dog food', 'not as advertised']
```

Histogram - Food Reviews Dataset



FOOD REVIEWS DATASET:

% of summaries with len < 8 : 0.9428853941049063

% of texts with len < 50 : 0.7766895815676303

Creating final df...

Splitting data...

Tokenizing data...

X Tokenizer:

% of rare words in vocabulary: 65.69576132790601

Total Coverage of rare words: 1.7851696951213896

X_vocab = 14075

y Tokenizer:

% of rare words in vocabulary: 76.56593809593663

Total Coverage of rare words: 3.778434287958601

85689 85689

y_vocab = 3196

Cleaning training and validation data...

WARNING:tensorflow:Layer lstm_4 will not use cuDNN kernels since it doesn't meet the criteria. It will use a generic GPU kernel as fallback when running on GPU.

WARNING:tensorflow:Layer lstm_5 will not use cuDNN kernels since it doesn't meet the criteria. It will use a generic GPU kernel as fallback when running on GPU.

Setting model parameters...

Building and Compiling model...

WARNING:tensorflow:Layer lstm_6 will not use cuDNN kernels since it doesn't meet the criteria. It will use a generic GPU kernel as fallback when running on GPU.

WARNING:tensorflow:Layer lstm_7 will not use cuDNN kernels since it doesn't meet the criteria. It will use a generic GPU kernel as fallback when running on GPU.

Model: "model_7"

Layer (type)	Output Shape	Param #	Connected to
input_12 (InputLayer)	[(None, 50)]	0	[]
embedding_2 (Embedding) ['input_12[0][0]']	(None, 50, 100)	1407500	
lstm_4 (LSTM) ['embedding_2[0][0]']	[(None, 50, 300), (None, 300), (None, 300)]	481200	
input_13 (InputLayer)	[(None, None)]	0	[]
lstm_5 (LSTM) ['lstm_4[0][0]']	[(None, 50, 300), (None, 300), (None, 300)]	721200	
embedding_3 (Embedding) ['input_13[0][0]']	(None, None, 100)	319600	

```

lstm_6 (LSTM) [(None, 50, 300), 721200
['lstm_5[0][0]']
              (None, 300),
              (None, 300)]

lstm_7 (LSTM) [(None, None, 300), 481200
['embedding_3[0][0]',
              (None, 300),
'lstms_6[0][1]',
              (None, 300)]
'lstms_6[0][2]']

attention_layer (AttentionLayer ((None, None, 300), 180300
['lstm_6[0][0]',
r) (None, None, 50))
'lstms_7[0][0]']

concat_layer (Concatenate) (None, None, 600) 0
['lstm_7[0][0]',
'attention_layer[0][0]']

time_distributed_1 (TimeDistrib (None, None, 3196) 1920796
['concat_layer[0][0]']
uted)

```

```

=====
=====

```

```

Total params: 6,232,996
Trainable params: 6,232,996
Non-trainable params: 0

```

```

-----
-----

```

```

None
Fitting model...
Epoch 1/50
658/658 [=====] - 388s 571ms/step - loss: 3.1530 -
val_loss: 2.9139
Epoch 2/50
658/658 [=====] - 351s 534ms/step - loss: 2.8445 -
val_loss: 2.7485
Epoch 3/50
658/658 [=====] - 350s 532ms/step - loss: 2.7096 -
val_loss: 2.6539
Epoch 4/50
658/658 [=====] - 348s 528ms/step - loss: 2.6176 -
val_loss: 2.5741
Epoch 5/50
658/658 [=====] - 349s 530ms/step - loss: 2.5428 -

```



```

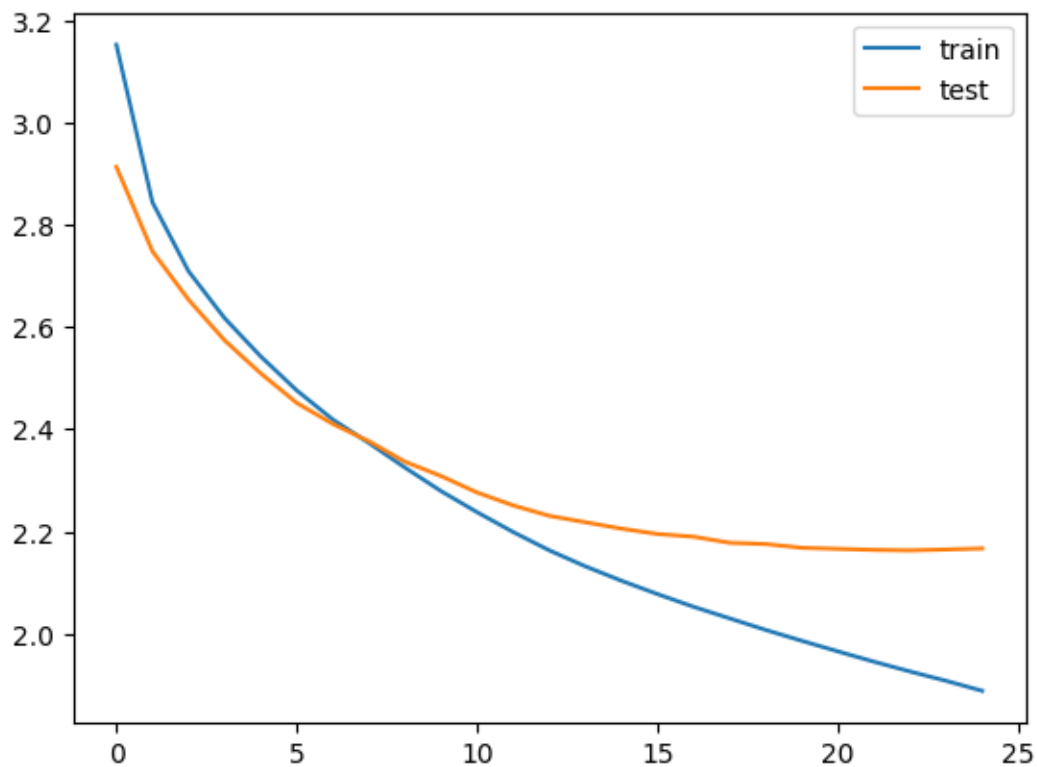
val_loss: 2.5096
Epoch 6/50
658/658 [=====] - 348s 528ms/step - loss: 2.4762 -
val_loss: 2.4517
Epoch 7/50
658/658 [=====] - 347s 528ms/step - loss: 2.4191 -
val_loss: 2.4104
Epoch 8/50
658/658 [=====] - 348s 529ms/step - loss: 2.3732 -
val_loss: 2.3766
Epoch 9/50
658/658 [=====] - 347s 527ms/step - loss: 2.3249 -
val_loss: 2.3364
Epoch 10/50
658/658 [=====] - 347s 527ms/step - loss: 2.2789 -
val_loss: 2.3085
Epoch 11/50
658/658 [=====] - 348s 529ms/step - loss: 2.2376 -
val_loss: 2.2762
Epoch 12/50
658/658 [=====] - 347s 528ms/step - loss: 2.1987 -
val_loss: 2.2509
Epoch 13/50
658/658 [=====] - 347s 528ms/step - loss: 2.1629 -
val_loss: 2.2305
Epoch 14/50
658/658 [=====] - 348s 528ms/step - loss: 2.1316 -
val_loss: 2.2179
Epoch 15/50
658/658 [=====] - 349s 531ms/step - loss: 2.1034 -
val_loss: 2.2054
Epoch 16/50
658/658 [=====] - 350s 532ms/step - loss: 2.0772 -
val_loss: 2.1950
Epoch 17/50
658/658 [=====] - 350s 532ms/step - loss: 2.0524 -
val_loss: 2.1896
Epoch 18/50
658/658 [=====] - 349s 531ms/step - loss: 2.0297 -
val_loss: 2.1777
Epoch 19/50
658/658 [=====] - 346s 527ms/step - loss: 2.0070 -
val_loss: 2.1752
Epoch 20/50
658/658 [=====] - 347s 528ms/step - loss: 1.9857 -
val_loss: 2.1679
Epoch 21/50
658/658 [=====] - 348s 529ms/step - loss: 1.9651 -

```

```

val_loss: 2.1659
Epoch 22/50
658/658 [=====] - 350s 531ms/step - loss: 1.9448 -
val_loss: 2.1639
Epoch 23/50
658/658 [=====] - 348s 528ms/step - loss: 1.9257 -
val_loss: 2.1629
Epoch 24/50
658/658 [=====] - 347s 527ms/step - loss: 1.9073 -
val_loss: 2.1646
Epoch 25/50
658/658 [=====] - 347s 527ms/step - loss: 1.8878 -
val_loss: 2.1667
Epoch 25: early stopping

```



```
[33]: model_predict(True, len(y_val))
```

Predicting...

Text: cookies delicious period happen organic happen vegan kids cookies cook
vegan food looking cookies banana pudding gotten around making pudding yet
cookies almost gone thank goodness subscribe save

Original summary: great tasting cookies not just for kids

Predicted summary: cookies

Text: present grandmother loves tea pleased get glad bought sent
Original summary: present
Predicted summary: great tea

Text: bought really impressed crunchy nutty good berry flavor ten year old even liked plus felt like snacking something halfway healthy going try vanilla flavor next
Original summary: very tasty
Predicted summary: good but not great

Text: looking cool gift someone special maybe special still need preserve reputation cutting edge trend setter take someone idea pasta well idea anything different find supermarket isle hey cooking shows tv top chef stuff smile complimented great taste gift giving
Original summary: cool gift you look great giving it
Predicted summary: great product

Text: used product yet works good concentrate pleased concentrate eliminated tomato
Original summary: brand killer with garden dust
Predicted summary: great product

Text: best food market prefers dry food choices corn gluten tasty healthy worth extra cost
Original summary: great food
Predicted summary: great product

Text: wow fabulous mixed plain yogurt suppose flavored yogurt would tasty well kept meaning sprinkle ice cream used yogurt take work left office kitchen convenient use believe good tastes branch using different ways next jar yum
Original summary: delicious and low fat
Predicted summary: amazing

Text: one favorite restaurants serves tea iced kind enough share brand name asked makes wonderful refreshing healthful iced tea highly recommend
Original summary: makes great iced tea
Predicted summary: best tea ever

Text: one big problem always send right product happens way return right product

ordered lbs honey received brown sugar instead tried return right product got absolutely response none sent countless emails nothing great product great taste company little careful

Original summary: there is only one big problem

Predicted summary: good product

Text: love dark chocolate really enjoyed previous order lindt chocolate bars type prefer available ordered fine bit sweet

Original summary: good but little too sweet

Predicted summary: good chocolate

Text: prefer jerky dry texture always hard time finding good one usually moistened soft chunks meat instead hard strips like old school jerky highly recommend product delicious

Original summary: great jerky

Predicted summary: great snack

Text: snacks delicious good easy grab bag quickly go flavors great low calorie

Original summary: yummm

Predicted summary: great snack

Text: san francisco bay coffee especially good french roast body flavor french roast usually get keurig reasonably priced would likely change brands

Original summary: san francisco bay coffee

Predicted summary: great coffee

Text: love kashi products one favorites cereals like mix couple brands high fiber low fat breakfast eat fine untill almost everyday especially good sliced fresh strawberries

Original summary: healthy breakfast option

Predicted summary: great cereal

Text: trust bad reviews right got pretzels favorite brand longer carried cost plus remembered trader joe know keep buying taste stale really awful waste money

Original summary: stale and bad

Predicted summary: stale

Text: long standing favorite classic hellman mayonnaise taken next level addition mustard enhances flavor sandwiches salads squeeze cap standing bottle makes much likely used takes little room refrigerator could without product even like mustard would think making ham swiss croissant sandwich without

Original summary: delicious
Predicted summary: best seasoning ever

Text: stopped drinking regular milk years ago tried several soy brands found better milk vanilla milk choice days recommended family members especially watching fat content food consumption
Original summary: better than milk
Predicted summary: great product

Text: kind bars good tough hike food lightweight tasty kind bars best found powerbars full natural ingredients see calories per bar favorite flavors chocolate cherry cashew cranberry almond bad flavor keep work mid morning snack car time
Original summary: the best bar
Predicted summary: delicious

Text: daughter first introduced crackers originally available whole foods nearest whole foods thirty miles away long way go crackers found available amazon com best part come freight free price seems competitive life good way tried great
Original summary: love these crackers
Predicted summary: great snack

Text: drank little cold water hot tea later sister tried made like tea hot water really likes ginger keen stuff neither us enjoyed tea kind harsh tasting heard ginger helps nausea never get chance try used
Original summary: not that tasty
Predicted summary: very good tea

Text: like spicy love way better kind get grocery store warm delicious buy
Original summary: amazing
Predicted summary: best ramen ever

Text: buying target since bars per box looked amazon buy bulk bars typical healthy granola bars actually good amount chocolate chips chocolate flavor bars cant really comment nutrition content compared others much info listed granola bars amazon taste good expect anything soft
Original summary: tough but chocolaty
Predicted summary: good but not great

Text: would consider grits connoisseur carolina additionally love yellow grits

best due texture longer grits cook better take full hour make sure start starting anything else morning great time day little salt pepper butter way best grits around

Original summary: best grits ever

Predicted summary: great product

Text: signed monthly subscription item price great especially without pay shipping charges love fact manage subscription skipping month ordering earlier scheduled amazon excellent getting shipments timely manner newman organics adult dog food chicken rice formula pound pleased orders amazon extremely pleased customer service thanks amazon

Original summary: healthy food the dogs love

Predicted summary: great price

Text: really good hot beverage trans fats tried iced would assume would also good way

Original summary: mocha chai

Predicted summary: good stuff

Text: let tell beef jerky wanting never tasted jerky flavor taste recommend anyone wanting little jerky

Original summary: wow

Predicted summary: good but not great

Text: stumbled dressing costco became huge fan longer stock getting used mix balsamic evo better far

Original summary: salad dressing

Predicted summary: the best

Text: cookies unanimously disliked six people office shared found dry tasteless unappetizing texture one even finished entire cookie plus six cookies individually wrapped box way large really tree hugger definitely disappointment recommended

Original summary: will find my calories somewhere else

Predicted summary: not as good as expected

Text: awesome product like garlic infused oil use cooking pasta making salad dressing pizza highly recommended full garlic flavor great price even given gifts garlic loving friends

Original summary: like garlic

Predicted summary: best chili ever

Text: cat became ill like another poster vomiting throughout day concerned also diarrhea never happened repurchasing

Original summary: cat very

Predicted summary: cat food

Text: great self feeding son getting picky still loves pouches plus great company organic uses gmo ingredients

Original summary: great product

Predicted summary: great food

Text: amazing great tasting low calorie carbs got lot packs great deal

Original summary: great

Predicted summary: delicious

Text: gave gift mother fan vanilla flavored coffee said enjoyed nice vanilla smell smooth taste said would buy

Original summary: gift

Predicted summary: great coffee

Text: tea horrible taste threw trash thank heavens found another ginger tea amazon truly wonderful ginger tea

Original summary: bad taste

Predicted summary: not bad

Text: nice combination sweet crunchy hoping find granola little interest without boring death one good healthy aspects love touch chocolate adds flavor without going overboard believe chocolate good like

Original summary: not too crunchy not too sweet

Predicted summary: great taste

Text: liked popchips specially taste low calorie fact also serve bags keeps fresh pack need need snack

Original summary: pretty good snack

Predicted summary: great snack

Text: cereal awesome found sale plastic bag rather stylish box sure fresh crunchie kind thankfully cannot walk gorilla face grocery store without feeling good although slightly worried healing affects product sold without exterior packaging know old saying box table keeps jimmies stable

Original summary: feels good man

Predicted summary: great cereal

Text: larger breed dog lbs loves first seem kind hard problem eating take long finish nice little snack treat still healthy moms smaller dog lbs also likes although smaller ones best

Original summary: my dog loves them

Predicted summary: my dog loves them

Text: second bite decide human food tastes exactly like dry dog food smells plain packaging without nutrition info tip nonetheless bite thing twice decided look great hit dog owners workplace amazon would consider quit mixing dog people food grocery

Original summary: pay attention to what you order

Predicted summary: my dog loves it

Text: tea nice flavor although wish little stronger brewed way states even tried letting sit longer get stronger cup work pleased purchase flavor overall

Original summary: like this tea

Predicted summary: good tea

Text: last year england experience try nescafe instant coffee sticks searched nearly year find us finally decided purchase online delicious like little extra coffee easy take whenever need little coffee break appreciate able purchase online close eyes return thanks heidi

Original summary: in coffee sticks the

Predicted summary: best coffee ever

Text: tasted good dissolved easily simply make nice flavors instant beverages continue become diverse lazy man found product delicious would also mention surprised wel ginger lemon go together day age every flavor combined least

Original summary: very good

Predicted summary: the best

Text: liked fact easily washable measurements outside unfortunately spots got worse time months started leak bottom needless say cannot recommend

Original summary: disappointing

Predicted summary: not as good as

Text: thought getting boxes oz instead got package oz bottles would pay store next time read description carefully beware

Original summary: not worth the price

Predicted summary: not as described

Text: shipped later chocolate ones thought could worse chocolate wrong horrible
dry mouth add liquid milk coffee turn consistancy sawdust truely disgusting
never usually products amazon good really disappointed
Original summary: really think they have star
Predicted summary: worst chocolate ever

Text: happy buy case line little less expensive buying store always wonder
things cost much box either way product arrived timely fashion fresh plus
Original summary: why do these cost so much
Predicted summary: great product

Text: dogs using bones two years best part floss teeth fun receive compliments
dog lovers clean teeth best toy ever
Original summary: best dental for your dogs
Predicted summary: my dogs love them

Text: purchased bag dog food broke smaller containers freezing threw bag bags
recalled lot numbers need determine bag list please forward information soon
possible thank
Original summary: is this bag on the recall list
Predicted summary: dog food

Text: way sweet huge fan haribo gold bears real let large sugar overwhelm trace
sour yuck
Original summary: too sweet not sour at all
Predicted summary: not so good

Text: found emeril big easy bold coffee one favorites prefer coffees dark bold
fits bill good product
Original summary: bold and flavorful
Predicted summary: great coffee

Text: barley flour good nutrition goes well whole wheat bread pizza crust
recipes opening store one gallon resealable plastic bag
Original summary: good in whole wheat pizza crust
Predicted summary: great gluten free flour

Text: everything need included kit make good wine need basic equipment kit

complete

Original summary: easy wine kit

Predicted summary: great product

Text: used daily basis keep gums healthy teeth clean free

Original summary: keeps you out of the

Predicted summary: great product

Text: coffee great smooth taste enjoyed several cups since discovering amazon besides drinking used ingredient chocolate cakes superb looking new coffee try highly recommend try

Original summary: yum

Predicted summary: great coffee

Text: enjoyed flavor orange soda overly sweet orange flavor enough tartness glad hfcs calorie count still quite high natural sugars looking good orange soda try one

Original summary: good tasting orange soda

Predicted summary: great taste

Text: tried several annie chun soup bowls noodle bowls good easy prepare quick meal

Original summary: fast food at its best

Predicted summary: quick easy and tasty

Text: pretty big fan traditional tea figured would green tea mango pieces later found reading ingredients herbs like chamomile rose hips etc tea taste horrible thought box sort misleading amazon community aware additions

Original summary: not just green tea and mango

Predicted summary: not as good as expected

Text: soy milk tastes exactly like soy milks thickness consistency although seems less taste others difference hot beverages like normal soy milk amazing job tastes great one favorite brands

Original summary: made for hot beverages does not

Predicted summary: great product

Text: gotten several times last years usually great sometimes little less limey like overall keep ordering

Original summary: love them

Predicted summary: very good

Text: tinkyada pastas best gluten free products market taste quality excellent
easy cook result consistent taste texture close standard wheat pasta pastas come
closer taste texture require little care preparation everyday use tinkyada best
bet comes perfect every time require attention cooking rather large window
Original summary: wonderful gluten free pasta
Predicted summary: best gluten free pasta

Text: first time trying popcorn taste hint butter really nice buying bulk one
serve portion great money saver
Original summary: great taste
Predicted summary: great popcorn

Text: new favorite strong great flavor usually get flavored coffee went limb
great order today actually
Original summary: wonderful
Predicted summary: best coffee ever

Text: best love love bagels pass one looking good bread recipe
Original summary: pamela wheat free free bread mix
Predicted summary: great gluten free bread

Text: really worth every penny made large groom cake first bag ordered used rest
bag making brownies makes best cake brownies ever absolutely never use grocery
store cocoa
Original summary: repeat
Predicted summary: best brownie mix ever

Text: normally get goji asian markets cheaper price since get often decided buy
online good packaging great health benefits lovely berries
Original summary: great berries like buy
Predicted summary: great product

Text: stuff great little spicy much order spicier goes back small place used get
tacos kid closed used loved still great
Original summary: awesome taco sauce
Predicted summary: the best

Text: love bottled water picky drink green white tea version would moon
Original summary: excellent item

Predicted summary: great taste

Text: little pitt bull mix loves food nice size crunching also fits well treat ball play give cats treat love

Original summary: cats love it too

Predicted summary: my dog loves this

Text: although loved ease price making purchase online arrived half cans severely dented much almost impossible order definitely reconsider purchase future

Original summary: amy soup

Predicted summary: great product

Text: corgi kibble one two things breeder recommended unfortunately dog like food would never eat pellet always mix real food even sometimes refuses eat top none pet shops area carry food overall big pita still ordering amazon looking alternative

Original summary: but dog

Predicted summary: my dog loves this food

Text: amazon yes says purified water ingredient list tell watered juice soon box saw words juice shocked see pretty picture see words juice cause back product amazon would never bought spend dollars ounces tap water ounces organic juice shame

Original summary: buyer beware it is only juice

Predicted summary: not sure enough

Text: add oz best sausage gravey ever quit selling stores mean stop eating

Original summary: good stuff

Predicted summary: the best

Text: wife problem years one capsules per day appears taken care problem longer needs take iron pills

Original summary: molasses capsules

Predicted summary: great product

Text: initially liked left alone dog chewed thru rope useless lasted less week dog

Original summary: not for chewers

Predicted summary: not for my dog

Text: good tasting caviar think personally like eggs larger caviar eggs small
tasty well priced item

Original summary: nice

Predicted summary: great product

Text: wanted try decaf coffee dinner found donut house decaf good little leery
labelled extra bold light roast sure label meant going strong going taste weak
like real strong coffee weak coffee pleasantly surprised taste strong weak
goldilocks said right would definitely recommend friend

Original summary: decaf coffee

Predicted summary: not as good as starbucks

Text: best real licorice ever period buying case really unique change pace try
herb flavored licorice green box deliciously refreshing minty aftertaste panda
licorice best

Original summary: simply the best

Predicted summary: best ginger ever

Text: dried cherries taste great eat cereal chutneys dishes buy online never run

Original summary: taste

Predicted summary: great taste

Text: like noodles noodle tasty delicious also spicy soup excellent enjoyed eat

Original summary: it is delicious

Predicted summary: great noodles

Text: vet turned product elderly cat developed master nobody going force pill
throat trying disguise food joke however pill pockets two years gobbled fuss
actually reminds pill time likes salmon flavor though

Original summary: my cat says yum

Predicted summary: my cat loves this food

Text: enjoying melitta coffee evening nice smooth taste none burnt coffee bean
taste starbucks used much coffee suggested preparation though used tablespoons
eight ounces water like coffee strong bitter worked good cup coffee half half
added buying

Original summary: nice smooth coffee

Predicted summary: great coffee

Text: spices herbs company check grocery store except exceptions find cheaper

price usually share product ways friends much would paid regular sized jar
mccormick schilling linda muir recipe wisconsin state farmer cook book writer
Original summary: good product
Predicted summary: great product

Text: getting harder harder find stores favorite used years make best freezer
strawberry jam everyone loves
Original summary: great pectin
Predicted summary: best ever

Text: simply best dates ever natural preservatives sugars stopped buying dates
discovered
Original summary: the best dates ever had
Predicted summary: great

Text: whenever pass europe always pick several tins family absolutely love candy
british classic first tried back early sadly easy get hold us unless search
inventory speciality stores hope major chain would start offering regular
Original summary: love it
Predicted summary: great taste

Text: wonderful natural snack coming boxes know rice pudding currants future
Original summary: yum
Predicted summary: delicious

Text: people go get elsewhere cost store
Original summary: way over price
Predicted summary: good but expensive

Text: second set bought take morning energy need day good thing take night may
keep night
Original summary: good source of energy
Predicted summary: great product

Text: product good quality great price compared local grocery store used almost
cooking needs
Original summary: good product of great price
Predicted summary: great product

Text: excellent substitute white sugar without side effects love instead high

calories use sweetners kitchen leave white sugar alone great product truly believe made sweeter er

Original summary: great organic sweetner

Predicted summary: great product

Text: first concerned jelly kind runny opened jar yet considering returning refund days fridge fine red currant favorite jelly much flavor bit tartness mrs right drawback small size like see offered oz jar

Original summary: tart tasty

Predicted summary: great product

Text: ridiculous best gourmet ketchup ever tasted pricey wow love stuff would make great gift someone hard buy loves ketchup yummy

Original summary: heinz no more

Predicted summary: the best

Text: loved granola chocolate pieces great addition wonderful flavor great milk personal preference little chunkier granola definitely chunky kids wanted let try package pretty small economical big family cannot imagine anyone liking like granola chocolate

Original summary: yum yum

Predicted summary: excellent chocolate

Text: provide stay paper one paper always falls area would wind beaches wind

Original summary: bit disappointing

Predicted summary: not as good as

Text: little bit hulls found product lot occasionally get something hard eating hand full great flavor fresh

Original summary: good product but

Predicted summary: good but not great

Text: arrived safe unbroken despite reviewer opinions love cookies hard find nearby great way stock

Original summary: butter wafers

Predicted summary: good but not great

Text: enjoyed garlic flavor noodles quite small portion used noodles stir fry dish broccoli red bell peppers quite tasty

Original summary: nice garlic flavor

Predicted summary: great taste

Text: year old dog starts every day happily happy hips veggie treats loves
chicken apple chicken sweet potato ones say morning coming steps feeding time
zoo race onto cupboard

Original summary: happy hips veggie treats

Predicted summary: my dog loves these

Text: easy say two lb dogs favorite chew toy nylabones kongs thing last months
tried nylabone shapes sizes favorite favorite far issues getting chunks unlike
hollow ones

Original summary: best nylabone for my dogs

Predicted summary: my dogs love this

Text: misleading mine cost big deal packs error

Original summary: you only get

Predicted summary: good price

Text: lion bar introduced co worker took first bite hooked year old son hooked
well lion bar candy bar whole wide world

Original summary: the

Predicted summary: delicious

Text: australian cattle dog loves dry loves canned quality dog food natural
ingredients trusting supermarket dog foods anymore innova pricier well worth

Original summary: recall this is quality product

Predicted summary: my dog loves this food

Text: looking replace twinings earl grey bought store tin found one amazon site
nice earl grey fragrant bitter leaves whole close little lighter twinings
terrific black tea

Original summary: nice earl grey

Predicted summary: great tea

Text: candy good family likes better

Original summary: review

Predicted summary: great candy

Text: rum cake awesome cannot get enough good want share anybody else

Original summary: powerful smell awesome taste

Predicted summary: very good

Text: macadamia nuts favorite nuts expensive cheap much less expensive used buy
nuts came large sealed bag taste fresh delicious keep freezer far freshness
disappeared taste great
Original summary: excellent nuts
Predicted summary: delicious

Text: sure bad reviews coming bought two cases take camping first bottle tasted
good last
Original summary: tastes good
Predicted summary: good but not the best

Text: surprised lack quality taste product thought tasted chemical preservatives
however able use product baking would buy product
Original summary: sun maid apples
Predicted summary: not what expected

Text: received octopus could wait opened one try know say great texture firm
without rubbery taste outstanding sure ordering soon
Original summary: octopus
Predicted summary: great taste

Text: gave grooming customers reports got back dogs loved natural felt
comfortable giving
Original summary: the dogs love these treats
Predicted summary: dog loves them

Text: dog loves cut smaller pieces chew quite finish one still know helps
digestion sure loves
Original summary: larger than but
Predicted summary: my dog loves them

Text: purchased rocky mountain thunder past directly boyer denver satisfied
product oz bag ordered amazon fresh therefore good product fresh beans oily
appearance beans dry
Original summary: mountain
Predicted summary: price is not what expected

Text: started feeding formula yorkshire terrier slightly overweight problem
eating surprising picky con food kibble size wish would make healthy weight

formula small dogs

Original summary: wellness healthy weight recipe

Predicted summary: my cat loves this food

Text: buy american think like salty things buy love licorice never tried dutch double salt licorice buy want saltiness dead sea packed tiny drop something vaguely resembling licorice

Original summary: too salty for non dutch

Predicted summary: not as good as expected

Text: pretty close taste freshly opened coconut would like know process obtaining water understand natural coconut water means tasty juicy bits pulp product add extra complexity make refreshing beverage fresh coconut jelly like pulpy still tasty

Original summary: natural coconut

Predicted summary: coconut water

Text: received order advertised everything excellent condition cat years old excellent health many thanks wellness grain cat foods

Original summary: excellent service excellent product

Predicted summary: great product

Text: surprise replace coffee enjoy tea afternoons caffeine aftertaste nice sweet flavor

Original summary: surprisingly delicious

Predicted summary: very good tea

Text: second order tea come really enjoy tea light enough drink two cups everyday flavor never gets old brown rice real winner compliments green tea perfectly tea seems settling effect stomach enough caffeine give little boost without giving headache

Original summary: nice light tea with earthy flavor

Predicted summary: great tea

Text: got two teas one type iced coffee rest holiday coffees apple cider spicy eggnog gingerbread bait redeeming factor amazon great issued refund

Original summary: not what ordered

Predicted summary: not as good as expected

Text: used notice energy letdown

Original summary: hour energy

Predicted summary: energy

Text: best oatmeal found filling lowest carbs highest fiber protein real ingredients

Original summary: love this oatmeal

Predicted summary: great taste

Text: drinking cherry sugar kool aid even write diabetic drink gallon water day like grape well cherry stuff awesome seems good true yum

Original summary: very impressed with sugar free kool aid

Predicted summary: great taste

Text: really different nylabone shape bone still hard plastic type material splinter form sharp shards cut dogs mouth catch everything really happy hoping different material rated hoped

Original summary: no different than any other nylabone

Predicted summary: not for my dog

Text: bitter weak waste money buy something else save money nothing say guess foam nice look

Original summary: awful

Predicted summary: worst coffee ever

Text: tea great beautiful smoky flavor cannot beat people normally go green tea want second cup highly recommend tea

Original summary: excellent tasting tea

Predicted summary: great tea

Text: flavor canned espresso better starbucks one thus calories instead product description say great item espresso lover

Original summary: very smooth taste

Predicted summary: good but not the best

Text: love love love iced tea tried lipton cold brew stuff find restaurants stumbled upon world market hubby fell love strong tasty easy make quality find favorite restaurants normally add peach syrup make peach iced tea yummm went back world market buy stock anymore glad amazon carries price bad either

Original summary: love this tea

Predicted summary: best chai ever

Text: buy case like previous reviewer family loves drink year round
grandchildren especially expect christmas soooooo yummy
Original summary: scrumptious
Predicted summary: delicious

Text: favorite hazelnut coffee generally get grocer per pack per pack
ridiculously overpriced
Original summary: this is great coffee
Predicted summary: great coffee

Text: like always product shipped right away smooth transaction product awesome
use coffee recipies everything needs sweeten love love product auto shippment
save even best part actually good try see
Original summary: great product
Predicted summary: great product

Text: smoothest coffee ever consumed chicory adds boldness yet reduces acidity
caffeine also reduced one drink cup day want side effects coffee purchased
several years though tried blends french market favorite
Original summary: smooth
Predicted summary: great coffee

Text: like bought original chocolate like original better co worker likes
chocolate better reason chocolate version cheaper sure maybe different seller
anyway chocolate price around better original jar last regular peanut butter
Original summary: it is good
Predicted summary: good but not great

Text: best gum ever lose flavor softness found one easter kids baskets seen
stores since wish would sell stores
Original summary: by far the best gum ever
Predicted summary: gum

Text: find better tasting soup anywhere initially purchased wife sensitive msg
kinds additives found soups eating keep supply hand family
Original summary: the best in soup
Predicted summary: quick easy and tasty

Text: favorite type gum wish could get locally got quick much shipping though
Original summary: wish could find it locally
Predicted summary: gum

Text: supposed purpose soda juice front label kiwi raspberry strawberry juice concentrates lesser ingredients apple grape juice majority rda vitamin lot things possible od vitamin bottom line though matter combination juices tastes like cheap candy pleasant

Original summary: tastes like cheap

Predicted summary: not the best

Text: disappointed find tea bags packed shipping box tea bags also batch tea almost without jasmin taste past stash green jasmin tea better

Original summary: short shipped

Predicted summary: not what expected

Text: right size quick reward treat sorry away long thank understanding excuse find treat pet always happy tail wag afterwards dogs gave treat woofs must good

Original summary: lamb bites for treats training

Predicted summary: my dogs love them

Text: favorite brand jerky never know spicy like spicy jerky please consistent spices make original spicy sometimes

Original summary: good taste but not consistent too spicy

Predicted summary: great taste

Text: grew new orleans always hesitant buy anything says new orleans since sure disappointed lack authenticity cornbread however delicious moist tasty convinced buy ease make add water fact cholesterol gives homemade taste without fuss

Original summary: just like home

Predicted summary: the best

Text: strong vanilla flavor tried vanilla flavored coffees starbuck version far superior chemical vanilla flavor found vanilla coffees flavor coffee beans vanilla beans one thing cannot drink without sugar reason needs least little sugar want vanilla flavored coffee one reach searching perfect blend without vanilla extract flavor great job starbucks

Original summary: excellent choice

Predicted summary: very good coffee

Text: nice coffee chocolately hint would def buy wonderful coffee beautiful aroma

Original summary: lovely

Predicted summary: not good

Text: seeds get generally big fan frank red hot man ever compliment good
sunflower seed
Original summary: love em
Predicted summary: great

Text: although called peas peas bean outer shell harder beans pigeon peas cooked
smell lemon lime hours come although beans taste lemon lime
Original summary: lemon lime
Predicted summary: not what expected

Text: used items however find jerk sauce best quite peppery
Original summary: great sauces
Predicted summary: great product

Text: happy see list ingredients listing peas broccoli pears thinking package
ingredients larger ingredients listed first ordering see package ingredient list
yes pears majority ingredients common misleading way product description written
Original summary: pears and pears
Predicted summary: contains msg

Text: packaging great perfect size popper got thing like difficult get contents
pour kettle properly without making mess put separate container spout flavor
great
Original summary: perfect portions
Predicted summary: great candy

Text: brownie one tastes good problem severe gi discomfort follows hours later
know coincidence tried different times random days felt fine otherwise ex work
well fast thinkthin bar grab full magazine rack head head good quality time
toilet enjoy
Original summary: two words time
Predicted summary: not bad

Text: love product found mixing flavored coffees gave latte effect price
Original summary: cafe addiction
Predicted summary: great coffee

Text: panda express sauces great ordering amazon associates wonderful longer go
store store hunt thanks
Original summary: love this sauce

Predicted summary: best hot sauce ever

Text: taste rosemary overpowering especially bottom half bag chips sea salt significantly better tasting

Original summary: overpowering

Predicted summary: good chips

Text: cannot begin tell awful stuff looking peanut butter substitute sorely disappointed would rather eat nothing

Original summary: it is horrible

Predicted summary: miracle noodles

Text: got hubby real coffee drinker around smell brewing delicious smells sweet kind caramel ish coffee smooth flavor subtle definitely brew keurig machine using filter attachment definitely worth repurchasing

Original summary: smells fantastic when

Predicted summary: great coffee

Text: purchased product us sale son seems like scared previous post mold always double check food stir serve seems like recommend chicken sweet potato dinner

Original summary: son seems to like it

Predicted summary: not as good as

Text: think gluten free pasta would like really picky taste texture tinkyada pasta products superb husband eat gluten free foods ate without noticing switch texture remains firm taste good even butter salt tried gf pasta disappointed jump joy tinkyada

Original summary: oh so wonderful

Predicted summary: best gluten free pasta

Text: got mine today say ounce boxes ounce boxes im happy almost amount paid ordering

Original summary: wrong size

Predicted summary: good but expensive

Text: tried bars good although like peanut butter chocolate chip bars better bars quick easy carry snack go

Original summary: and bars

Predicted summary: great taste

Text: tried many products years far one best overall happy product great mellow flavor something drink day racing

Original summary: first

Predicted summary: great product

Text: course keurig green mtn hot cocoa ultimate convenience frankly flavor hot best description slightly chocolate flavored cardboard everything else fine flavor way chocolate

Original summary: not so hot cocoa

Predicted summary: not so hot

Text: noodles better thought instant rice noodles would said positive think rice noodles bland expected much flavorful soup little flavor could make soup good fit description would onions unless read package sure describe little taste tastes bad

Original summary: nothing special

Predicted summary: not as good as expected

Text: step slim jim commercial instructed load false advertising difficult experience extremely uncomfortable took days wash smell processed dried beef

Original summary: false advertising

Predicted summary: not as advertised

Text: first thought could save money filling keurig cups time bought cups paid shipping bought coffee put already hole fill little cups day guess work coffee choice problem get stuck brewer try take still thirty left gone replace

Original summary: not worth the

Predicted summary: not so good

Text: skeptical see sort delicate rice noodle made brown rice however able make using almost identical methods traditional white rice variety worked well flavor course bit stronger due brown rice content good

Original summary: quite good would certainly buying more

Predicted summary: great product

Text: pro organic price pack cheaper health food stores easy eat many need watch sugar level good sizes sometimes quite uneven big deal pretty expected lot price buying elsewhere overall cons really cons wanted make sure parents tried aware buy regularly really negatives

Original summary: delicious

Predicted summary: great product

Text: grew scotland three daily meals called breakfast dinner tea order yes tea important last meal day called tea lived usa years great finding easy source good tea found london cuppa easy affordable source via amazon com taste rich smooth best tea ever

Original summary: the great taste of london cuppa

Predicted summary: best tea ever

Text: made thanksgiving dinners using seasoning turkey everyone loves glad finally found

Original summary: salt free and great

Predicted summary: great seasoning

Text: found dog food reading reviews earned top category stars premium dry food picky pomeranian loves

Original summary: top rated

Predicted summary: my dog loves this food

Text: lot bars brittle biting bar leaves crumbs floor probably buy

Original summary: too hard and brittle

Predicted summary: great taste

Text: almost delicious straight add corn pepper cheese fantastic great base wonderful main dish

Original summary: will buy it again

Predicted summary: best ever

Text: husbands favorite coffee use loves strong bold coffee fits bill

Original summary: best coffee for the

Predicted summary: great coffee

Text: indian food actual restaurant someones house may want skip packets indian food velveeta vermont cheddar packets indian food pop tarts french packets indian food canned tuna grade packets indian food blow well get thing really

Original summary: if you are indian skip

Predicted summary: not as advertised

Text: yr old lab basenji mix favorite food mix together dried food making single last week special treat however shipping cheaper go local pet store

Original summary: cheaper at local store

Predicted summary: my dog loves this food

Text: spoil little italian greyhound rotten although picky treats tend get tired things little far tired buy lots treats one tried true favorites

Original summary: my loves them

Predicted summary: my dog loves them

Text: try feed son healthy foods regular basis like allow treats problem treats today made sugar chemicals love annie products since made natural food also like vegan friendly

Original summary: treat that is not made of chemicals

Predicted summary: great for toddlers

Text: expected price paid would get candy sweet tasted licorice bland hard flat tasting little licorice flavor

Original summary: disappointing

Predicted summary: not what expected

Text: essentially chicken flavored noodle soup made little chicken vegetables long ramen noodles difficult handle soup high sodium content high saturated fat minor nutritional value made adding hot water microwave meals available better attractive feature low cost

Original summary: not recommended

Predicted summary: good soup

Text: bad price petco petco doesnt carry whitefish sweet potato puppy isnt real fan whitefish smell bad vet suggested give tummy problems would probably stick petco since price minus shipping fee products delivered good timely manner

Original summary: please with product

Predicted summary: great product

Text: one favorites grove square great cappuccino wonderful flavor need creamer make taste better love one ones grove square

Original summary: tasty

Predicted summary: best hot cocoa ever

Text: good choice healthy protein satisfying delicious interesting sweet spicy taste portable protein go energy

Original summary: healthy snack

Predicted summary: delicious

Text: unfortunately gluten free thing trend part lifestyle many darn gluten free desserts end tasting like cardboard weird gritty taste hesitant trying pie initially wrong gluten free crust tastes better ordinary pie crusts surprised really tasty especially warmed hope flavors would love see pumpkin pie thanksgiving

Original summary: cannot believe it is gluten free

Predicted summary: gluten free and gluten free

Text: store originally purchased crackers longer carry pleasantly surprised find amazon received right away excellent condition crackers favorites far highly recommend well worth

Original summary: crisp

Predicted summary: great snack

Text: hello used organic maple syrup grade lemon detox use loose weight clean system recommend product reliable vendor well submitted order less days received product began detox want use product research lemon detox master cleanser see main ingredient detox great organic maple syrup grade level good luck

Original summary: lemon detox

Predicted summary: does not work well

Text: really good milk milk would recomend cereal anyone wants eat healthy

Original summary: perfect

Predicted summary: great product

Text: year old daughter diagnosed celiac lot research products tried new pillsbury mixes one glad see major manufacturer realize huge market gluten free products especially ones taste good definitely trying products

Original summary: new to celiac

Predicted summary: great gluten free option

Text: coconut butter tastes awesome way expensive small jar going try another person posted coconut butter review make coconut flakes food processor cacao powder cannot justify spending jar small

Original summary: tasty addition to smoothies etc

Predicted summary: great product

Text: fast great product works well days need extra energy dead lines

Original summary: great product great price

Predicted summary: great product

Text: learn long standing product loyal fan base changing recipe great idea want new product create one removed great deal vitamins nutrition drinking might well add hershey syrup lost loyal customer

Original summary: the new improved

Predicted summary: great product

Text: watching carbs miss egg noodles nada good replacement greatly low carb quite bit less regular pasta need watch serving sizes cooks minutes accepts tomato sauces well different flavours add variety also easy toss butter parmesan seasonings add leftover chicken beef vegetables quick easy meal less carbs

Original summary: great lower carb pasta

Predicted summary: great for quick meal

BLEU SCORE: 0.1160 | ROUGE SCORE: 0.1514