

We ran the model locally in personal computer.

Below is the directory structure.

Rest depicts how the model runs and emits the sentiments.

Anaconda Prompt (anaconda3) - python Sentiment_CNN_v1.py

```
Directory of C:\Users\itsme\sivaworkspace\CourseProject

12/10/2021  09:26 PM    <DIR>          .
12/10/2021  09:26 PM    <DIR>          ..
12/08/2021  11:13 AM    <DIR>          .idea
12/08/2021  11:50 AM    <DIR>          .ipynb_checkpoints
12/09/2021  01:09 PM             2,548 app.py
12/10/2021  05:28 PM             217 app1.py
12/08/2021  11:13 AM          141,318 C410 - TIS - Progress Report.pdf
12/08/2021  11:13 AM          109,177 C410 - TIS - Project Proposal.pdf
12/08/2021  03:47 PM              87 cat_to_name.json
12/08/2021  03:48 PM              28 class_to_idx.json
12/08/2021  03:50 PM             650 commons.py
12/08/2021  12:03 PM    <DIR>          content
12/08/2021  07:36 PM          11,857 deleteSentiment_CNN.py
12/08/2021  11:56 AM          17,318 email_data_cleaning.ipynb
12/08/2021  03:45 PM             544 inference.py
12/08/2021  11:13 AM    <DIR>          Model
11/11/2021  07:16 AM        375,719,138 new_emails.csv
12/08/2021  11:13 AM             1,111 README.md
12/10/2021  05:26 PM             109 request.py
12/09/2021  12:11 PM          63,494 Sentiment_CNN_v1.ipynb
12/10/2021  09:24 PM          11,862 Sentiment_CNN_v1.py
12/08/2021  07:29 PM    <DIR>          static
12/08/2021  07:28 PM    <DIR>          templates
12/09/2021  07:35 AM    <DIR>          __pycache__
                15 File(s)      376,079,458 bytes
                9 Dir(s)   142,697,189,376 bytes free
```

■ Anaconda Prompt (anaconda3) - python Sentiment_CNN_v1.py

(base) C:\Users\litsme\siavworkspace\CourseProject>python Sentiment_CNN_v1.py

Using device: cpu

```
Sample text: ['Message', 'ID', '5474548', '1075841638905', 'JavaMail', 'evans', 'thyme', 'Date', 'Tue', '16', 'Jan', '2001', '07', '50', '00', '0800', 'PST', 'From', 'ate', 'symes', 'enron', 'com', 'Subject', 'Re', '16', '0', 'Checkout', 'Mime', 'Version', '1', '0', 'Content', 'Type', 'text', 'plain', 'charset', 'us', 'ascii', 'Content', 'rom', 'Evelyn', 'Matoyen', 'X', 'To', 'Kate', 'Symes', 'enron', 'com', 'X', 'cc', 'X', 'bcc', 'X', 'Folder', 'Kate', 'symes', '6', '27', '02', 'Notes', 'Folders', 'All', 'X', 'FileName', 'Kate', 'symes', '6', '27', '02', 'nsf', 'Mark', 'Fischer', 'deal', '497791', 'Amerex', 'shows', 'price', 'as', '155', 'and', 'empower', 'has']
Sample label: symes-k/all_documents/1118.
```

```
Sample text: ['Message', 'ID', '20421197', '1075844529282', 'JavaMail', 'evans', 'thyme', 'Date', 'Thu', '21', 'Oct', '1999', '08', '47', '00', '0700', 'PDT', 'From', 'Lynn', 'Aven', 'enron', 'com', 'Subject', 'Re', 'meeting', 're', 'Tozzini', 'memo', 'Mime', 'Version', '1', '0', 'Content', 'Type', 'text', 'plain', 'charset', 'us', '7bit', 'X', 'From', 'Sara', 'Shackleton', 'X', 'To', 'Lynn', 'Aven', 'X', 'cc', 'X', 'bcc', 'X', 'Folder', 'Sara_Shackleton_Dec2000_June2001', 'Notes', 'Folders', 'FileName', 'sshackle', 'nsf', 'Let', 's', 'do', 'it', 'on', 'Tuesday', 'Oct', '26', 'at', '2', 'pm', 'If', 'Brent', 'is', 'available', 'all', 'the', 'better', 'Let', 'visit', 'Enronland', 'I', 'don', 't', 'mind', 'the', 'walk', 'Sara', 'Lynn', 'Aven', 'ENRON_DEVELOPMENT', '10', '21', '99', '03', '01', 'PM', 'To', 'Sara', 'Shackleton', 'meeting', 're', 'Tozzini', 'memo', 'Monday', 'on', 'Tuesday', 'of', 'next', 'week', 'is', 'ok', 'for', 'me', 'with', 'the', 'exception', 'of', '8', '30', 'to', 'I', 'out', 'of', 'the', 'question', 'since', 'there', 'is', 'a', 'Comgas', 'II', 'all', 'day', 'working', 'session', 'planned', 'Let', 'me', 'know', 'what', 'date', 'work', 'Shackleton', 'ECT', '10', '21', '99', '01', '33', 'PM', 'To', 'Lynn', 'Aven', 'ENRON_DEVELOPMENT', 'ENRON_DEVELOPMENT', 'cc', 'Subject', 'meeting', 're', 'Tozzini', 'memo', 'up', 'here', 'Brent', 'may', 'not', 'get', 'my', 'e', 'mail', 'for', 'awhile', 'I', 'believe', 'that', 'he', 'is', 'in', 'Houston', 'today', 'on', 'personal', 'business', 'conclusion', 'of', 'the', 'ENA', 'legal', 'conference', 'which', 'is', 'Th', 'Fr', 'next', 'week', 'What', 'is', 'your', 'availability', 'on', 'Mon', 'or', 'Tuesday', 'ut', 'something', 'together', 'at', 'least', 'you', 'and', 'I', 'can', 'have', 'a', 'game', 'plan', 'so', 'that', 'we', 'can', 'plan', 'our', 'next', 'visit', 'to', 'I', 'mmer', 'Sara']
Sample label: shackleton-s/sent/521.
```

Vocab size: 62697

```
Example text: tensor([
  3,  4,  2,  2,  5,  6,  7,  8, 1517,  526,
1006, 919, 13, 230, 120, 121, 122, 18, 1980, 396,
 21,  22, 23, 39730, 8710, 8711,  22,  28,  29, 2122,
6998, 11027, 34,  35,  36,  37,  38,  39,  40,  41,
 42,  43,  44,  38,  45,  46,  47,  48,  18, 1980,
 396,  48,  23, 3759, 39733, 39730, 8710, 8711,  22,  21,
```

■ Anaconda Prompt (anaconda3) - python Sentiment_CNN_v1.py

The model has 11,973,891 trainable parameters

Training Model...

```
[0%] [0/25 [00:00<, 3it/s]
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Sample label: symes-k/sent/53.
```

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Sample label: rogers-b/all_documents/1682.
```

```
Sample text: ['Message', 'ID', '1375437', '1075841589262', 'JavaMail', 'evans', 'thyme', 'Date', 'Thu', '25', 'Oct', '2001', '14', '38', '04', '0700', 'PDT', 'From', 'Bill', 'Williams', 'enron', 'com', 'To', 'John', 'Anderson', 'enron', 'com', 'Todd', 'Bland', 'enron', 'com', 'Craig', 'Dean', 'enron', 'com', 'Mark', 'Guzman', 'enron', 'com', 'Leaf', 'Harasin', 'enron', 'com', 'Eric', 'Linder', 'enron', 'com', 'Steven', 'Merriss', 'enron', 'com', 'Bert', 'Meyers', 'enron', 'com', 'Michael', 'Mier', 'enron', 'com', 'V', 'Porter', 'enron', 'com', 'Darin', 'Presto', 'enron', 'com', 'Ryan', 'Slinger', 'enron', 'com', 'Geir', 'Solberg', 'enron', 'com', 'Kate', 'Symes', 'enron', 'com', 'Bill', 'Williams', 'enron', 'com', 'Mime', 'Version', '1', '0', 'Content', 'Type', 'text', 'plain', 'charset', 'us', 'ascii', 'Content', 'Transfer', 'Encoding', '7bit', 'Bcc', 'Kysa', 'alport', 'enron', 'com', 'Kate', 'Symes', 'enron', 'com', 'X', 'From', 'Williams', 'III', 'Bill', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Bwillias', 'X', 'To', 'Anderson', 'John', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Janders3', 'Bland', 'Todd', 'Todd', 'Bland', 'ENRON', 'com', 'Dean', 'Craig', 'Craig', 'Dean', 'ENRON', 'com', 'Guzman', 'Mark', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Mguzman3', 'Harasin', 'Leaf', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Lharasin', 'Linder', 'Eric', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Elinder', 'Merriss', 'Steven', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Smerriss', 'Meyers', 'Bert', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Meyers', 'Michael', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Mier', 'Porter', 'David', 'V', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Dporter3', 'Presto', 'Darin', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Dpresto2', 'Slinger', 'Ryan', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Rslinger', 'Solberg', 'Geir', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Ksolberg', 'Symes', 'Kate', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Ksymes', 'Williams', 'III', 'Bill', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Bwillias', 'X', 'cc', 'Alport', 'Kysa', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Kalport', 'Symes', 'Kate', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Ksymes', 'X', 'Folder', 'ExMerge', 'Solberg', 'Geir', 'Inbox', 'X', 'Origin', 'SOLBERG', 'G', 'X', 'FileName', 'geir', 'solberg', '6', '26', '02', 'PST', 'Group', 'We', 'are', 'still', 'short', '50', 'mms', 'in', 'ST', 'MBOM', 'on', 'peak', 'Friday', 'and', 'Saturday', 'at', '2', '80', 'For', 'Friday', 'only', 'as', 'of', 'right', 'now', 'I', 'have', 'picked', 'up', '10', 'mms', 'of', 'energy', 'flat', '24hr', 'schedule', 'I', 'bought', 'this', 'energy', 'from', 'the', 'APX', 'deal', '840919', 'at', '25', 'We', 'will', 'be', 'long', '10', 'mms', 'each', 'hour', 'in', 'position', 'manager', 'in', 'SP', '15', 'as', 'a', 'rest', 'It', 'Please', 'sell', 'this', 'energy', 'in', 'the', 'off', 'peak', 'on', 'peak', 'will', 'go', 'to', 'fill', 'our', 'M', 'BOM', 'short', 'I', 'have', 'scheduled', 'an', 'HA', '24', 'purchase', 'from', 'the', 'APX', '1', 'and', 'have', 'put', 'the', 'energy', 'into', 'the', 'ST', 'MBOM', 'load', 'zone', 'Do', 'call', 'with', 'questions', 'Cell', '503', '887', '3449', 'Home', '503', '274', '0502', 'Thanks']
Sample label: solberg-g/inbox/150.
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Sample text: ['Message', 'ID', '8179794', '1075841426984', 'JavaMail', 'evans', 'thyme', 'Date', 'Wed', '6', 'Feb', '2002', '04', '56', '28', '0800', 'PST', 'From', 'Jae', 'Black', 'enron', 'com', 'To', 'm', 'Presto', 'enron', 'com', 'Subject', 'Re', 'Contact', 'Info', 'Mime', 'Version', '1', '0', 'Content', 'Type', 'text', 'plain', 'charset', 'us', 'ascii', 'Content', 'Transfer', 'Encoding', '7bit', 'X', 'From', 'Black', 'Tamara', 'Jae', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'TBLACK', 'X', 'To', 'Presto', 'Kevin', 'M', 'O', 'ENRON', 'OU', 'NA', 'CN', 'RECIPIENTS', 'CN', 'Kpresto', 'X', 'cc', 'X', 'bcc', 'X', 'Folder', 'ExMerge', 'Presto', 'Kevin', 'M', 'Deleted', 'Items', 'X', 'Origin', 'PRESTO', 'K', 'X', 'FileName', 'kevin', 'presto', '2', '7', '02', 'pst', 'Thank', 'you', 'have', 'fun', 'and', 'try', 'to', 'relax', 'Original', 'Message', 'From', 'Presto', 'Kevin', 'M', 'Sent', 'Tuesday', 'February', '05', '2002', '8', '18', 'PM', 'To', 'Black', 'Tamara', 'Jae', 'Subject', 'Contact', 'Info', 'I', 'can', 'be', 'reached', 'on', 'my', 'cell', 'in', 'Florida', 'In', 'addition', 'you', 'can', 'leave', 'messages', 'with', 'the', 'hotel', 'voice', 'mail', 'I', 'am', 'staying', 'at', 'Ritz', 'Carlton', 'on', 'Key', 'Biscayne', 'I', 'will', 'also', 'be', 'checking', 'e', 'mail', 'at', 'least', 'once', 'per', 'day']
Sample label: presto-k/deleted_items/15.
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