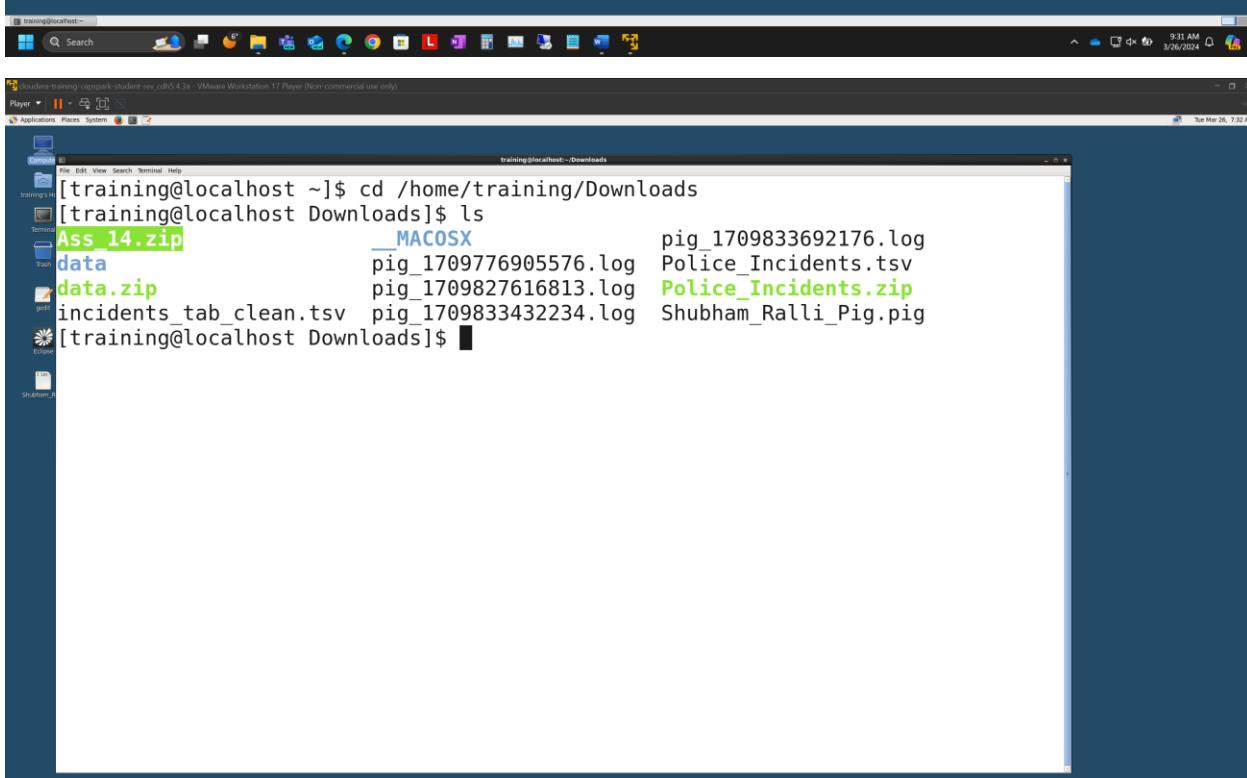


Twitter Sentiment Analysis

- Shubham Ralli



```
[training@localhost Downloads]$ ls Ass_14.zip
Ass_14.zip
[training@localhost Downloads]$ ls
AFINN.txt          MACOSX
Ass_14.zip          pig_1709776905576.log
data               pig_1709827616813.log
data.zip           pig_1709833432234.log
incidents_tab_clean.tsv  pig_1709833692176.log
[training@localhost Downloads]$
```

```
Ass_14.zip          pig_1709776905576.log  Police_Incidents.zip
data               pig_1709827616813.log  Shubham_Ralli_Pig.pig
data.zip           pig_1709833432234.log  Tweets.csv
incidents_tab_clean.tsv  pig_1709833692176.log
[training@localhost Downloads]$ hdfs dfs -mkdir /Sentiment_Analysis_Shubham_Rall
i
[training@localhost Downloads]$ hdfs dfs -la /
-la: Unknown command
[training@localhost Downloads]$ hdfs dfs -ls /
Found 10 items
drwxrwxrwx  - training supergroup      0 2024-03-26 07:36 /Sentiment_Analys
is Shubham Ralli
drwxrwxrwx  - training supergroup      0 2024-02-08 19:02 /Shubham_Ralli
drwxrwxrwx  - training supergroup      0 2024-03-06 17:58 /Shubham_Ralli_in
cidents
drwxrwxrwx  - hbase    supergroup      0 2015-08-27 05:37 /hbase
drwxr-xr-x  - training supergroup      0 2024-02-23 17:56 /loudacre_Shubham
drwxrwxrwx  - training supergroup      0 2024-02-23 18:13 /loudacre_Shubham
_Ralli
drwxrwxrwx  - solr    supergroup      0 2015-08-27 05:32 /solr
drwxrwxrwt  - hdfs   supergroup      0 2024-03-14 18:29 /tmp
drwxrwxrwx  - hdfs   supergroup      0 2024-01-23 17:44 /user
drwxrwxrwx  - hdfs   supergroup      0 2015-08-27 05:31 /var
[training@localhost Downloads]$
```

```
drwxrwxrwx - training supergroup 0 2024-03-26 07:36 /Sentiment_Analys
is_Shubham_Ralli
drwxrwxrwx - training supergroup 0 2024-02-08 19:02 /Shubham_Ralli
drwxrwxrwx - training supergroup 0 2024-03-06 17:58 /Shubham_Ralli_in
cidents
drwxrwxrwx - hbase    supergroup 0 2015-08-27 05:37 /hbase
drwxr-xr-x - training supergroup 0 2024-02-23 17:56 /loudacre_Shubham
drwxrwxrwx - training supergroup 0 2024-02-23 18:13 /loudacre_Shubham
_Ralli
drwxrwxrwx - solr    supergroup 0 2015-08-27 05:32 /solr
drwxrwxrwt - hdfs    supergroup 0 2024-03-14 18:29 /tmp
drwxrwxrwx - hdfs    supergroup 0 2024-01-23 17:44 /user
drwxrwxrwx - hdfs    supergroup 0 2015-08-27 05:31 /var
[training@localhost Downloads]$ hdfs dfs -put Tweets.csv /Sentiment_Analysis_Sh
bham_Ralli/
[training@localhost Downloads]$ hdfs dfs -put AFINN.txt /Sentiment_Analysis_Shub
ham_Ralli/
[training@localhost Downloads]$ hdfs dfs -ls /Sentiment_Analysis_Shubham_Ralli
Found 2 items
-rw-rw-rw- 1 training supergroup 28094 2024-03-26 07:38 /Sentiment_Analy
is_Shubham_Ralli/AFINN.txt
-rw-rw-rw- 1 training supergroup 2670787 2024-03-26 07:37 /Sentiment_Analy
is_Shubham_Ralli/Tweets.csv
[training@localhost Downloads]$
```

```
2024-03-26 07:39:00,327 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - mapred.job.tracker is deprecated. Instead, use mapreduce.jobtracker.add
ress
2024-03-26 07:39:00,505 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - fs.default.name is deprecated. Instead, use fs.defaultFS
2024-03-26 07:39:00,512 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - mapred.job.tracker is deprecated. Instead, use mapreduce.jobtracker.add
ress
2024-03-26 07:39:00,660 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - fs.default.name is deprecated. Instead, use fs.defaultFS
2024-03-26 07:39:00,661 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - mapred.job.tracker is deprecated. Instead, use mapreduce.jobtracker.add
ress
2024-03-26 07:39:00,816 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - fs.default.name is deprecated. Instead, use fs.defaultFS
2024-03-26 07:39:00,817 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - mapred.job.tracker is deprecated. Instead, use mapreduce.jobtracker.add
ress
2024-03-26 07:39:00,990 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - fs.default.name is deprecated. Instead, use fs.defaultFS
2024-03-26 07:39:00,990 [main] INFO org.apache.hadoop.conf.Configuration.deprec
ation - mapred.job.tracker is deprecated. Instead, use mapreduce.jobtracker.add
ress
grunt>
```

```
Ubuntu training-capspark-student-rev_cd54.3a - VMware Workstation 17 Player (Non-commercial use only)
Player || Applications Places System Terminal Help
File Edit View Search Terminal Help
training@localhost:~$ Downloads
("7996","FYI, I must tell and clear your doubts to enhance your GENERAL KNOWLEDGE that this wholesome experiment of #DEMONETIZATION is only",FALSE,0,NA,"2016-11-22 10:57:59",FALSE,NA,"801016871856140289",NA,"<a href=""http://www.twitter.com"" rel=""nofollow"">Twitter for Windows Phone</a>","Rishimathur18",0,FALSE,FALSE)
)
("7997","RT @sukanyaiyer2: #DeMonetization AAP protests by marching Against Govt's move over DeMonetization & he is also detained as he Tried 2 March",FALSE,0,NA,"2016-11-22 10:57:58",FALSE,NA,"801016867473227776",NA,"<a href=""http://twitter.com/download/android"" rel=""nofollow"">Twitter for Android</a>","asitawasthi_",2,TRUE,FALSE)
("7998","#demonetization will help combat terror because Pak won't be able to print new notes! And now, this. *slow claps* https://t.co/p0p93sXiMn",FALSE,2,NA,"2016-11-22 10:57:44",FALSE,NA,"801016810006945792",NA,"<a href=""http://twitter.com/download/iphone"" rel=""nofollow"">Twitter for iPhone</a>","Modern_Gypsy",1,FALSE,FALSE)
("7999","#Demonetization Positive Effect: Cigarette Sales Slashed To Almost Half After Demonetization:Report @depparihar @Tabassumzia @AshSharma1102",FALSE,2,NA,"2016-11-22 10:57:43",FALSE,NA,"801016807825940481",NA,"<a href=""http://twitter.com"" rel=""nofollow"">Twitter Web Client</a>","HP_Journo",1,FALSE,FALSE)
("8000","RT @UnSubtleDesi: Kejriwal posts pic of dead robber and claims it's #demonetization related death? How shameless has this man become? https",FALSE,0,NA,"2016-11-22 10:57:33",FALSE,NA,"801016763722797057",NA,"<a href=""http://twitter.com"" rel=""nofollow"">Twitter Web Client</a>","prashik2107",897,TRUE,FALSE)
grunt> █
```

```
Ubuntu training-capspark-student-rev_cd54.3a - VMware Workstation 17 Player (Non-commercial use only)
Player || Applications Places System Terminal Help
File Edit View Search Terminal Help
training@localhost:~$ Downloads
ation isn't that what we are understanding")
("7991","RT @DrKumarVishwas: And the Oscar goes to ""Mr.<U+092D><U+093E><U+0935><U+0941><U+0915>"" <ed><U+00A0><U+00BD><ed><U+00B8><U+00A9><ed><U+00A0><U+00BD><ed><U+00B8><U+00A5><ed><U+00A0><U+00BD><ed><U+00B8><U+00A2><ed><U+00A0><U+00BD><ed><U+00B8><U+00AD>#demonetization https://t.co/ObQrhlNSL6")
("7992","RT @jan14anurag: Terrorists raided a bank to get new <U+20B9>2000 note s =&gt;; their old finances are indeed squeezed tight #Demonetization (https://t",FALSE)
("7993","RT @jackerhack: Indore's collector would like you to shut up about #demonetization. At @internetfreedom we think that is a problem. https://")
("7994","@quizderek Post #Dmonetization the result will be totally different. The win is not because of #demonetization an all knows about it")
("7995","@baliramsingh2 So many restrictions. Not easy to avail the facility by anyone. Multiple U-turns by GOI on the issue. #DeMonetization #RBI")
("7996","FYI")
("7997","RT @sukanyaiyer2: #DeMonetization AAP protests by marching Against Govt's move over DeMonetization & he is also detained as he Tried 2 March")
("7998","#demonetization will help combat terror because Pak won't be able to print new notes! And now")
("7999","#Demonetization Positive Effect: Cigarette Sales Slashed To Almost Half After Demonetization:Report @depparihar @Tabassumzia @AshSharma1102")
("8000","RT @UnSubtleDesi: Kejriwal posts pic of dead robber and claims it's #demonetization related death? How shameless has this man become? https")
grunt> █
```

```
File Edit View Search Terminal Help training@localhost:~Downloads
("7995","@baliramsingh2 So many restrictions. Not easy to avail the facility by anyone. Multiple U-turns by GOI on the issue. #DeMonetization #RBI")
("7996","FYI")
("7997","RT @sukanyaiyer2: #DeMonetization AAP protests by marching Against Govt's move over DeMonetization & he is also detained as he Tried 2 March")
("7998","#demonetization will help combat terror because Pak won't be able to print new notes! And now")
("7999","#Demonetization Positive Effect: Cigarette Sales Slashed To Almost Half After Demonetization:Report @depparihar @Tabassumzia @AshSharma1102")
("8000","RT @UnSubtleDesi: Kejriwal posts pic of dead robber and claims it's #demonetization related death? How shameless has this man become? https")
grunt> data_tokens = FOREACH data_extract generate id, text, FLATTEN(TOKENIZE(text)) as words;
2024-03-26 07:45:27,737 [main] WARN org.apache.pig.PigServer - Encountered Warning USING_OVERLOADED_FUNCTION 1 time(s).
2024-03-26 07:45:27,737 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
grunt> describe data_tokens;
2024-03-26 07:47:49,612 [main] WARN org.apache.pig.PigServer - Encountered Warning USING_OVERLOADED_FUNCTION 1 time(s).
2024-03-26 07:47:49,613 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
data_tokens: {id: bytearray,text: bytearray,words: chararray}
grunt>
```

```
File Edit View Search Terminal Help training@localhost:~Downloads
(worshiped,3)
(worst,-3)
(worth,2)
(worthless,-2)
(worthy,2)
(wow,4)
(wowow,4)
(wowww,4)
(wrathful,-3)
(wreck,-2)
(wrong,-2)
(wronged,-2)
(wtf,-4)
(yeah,1)
(yearning,1)
(yeees,2)
(yes,1)
(youthful,2)
(yucky,-2)
(yummy,3)
(zealot,-2)
(zealots,-2)
(zealous,2)
grunt>
```

```
File Edit View Search Terminal Help
Computer
Terminal
Task
grunt
Eclipse
Studio
training@localhost:~/(Downloads)
(yeah,1)
(yearning,1)
(yees,2)
(yes,1)
(youthful,2)
(yucky,-2)
(yummy,3)
(zealot,-2)
(zealots,-2)
(zealou
grunt> sent_join = join data_tokens by words left outer, word_dict by word using
'replicated';
2024-03-26 08:08:48,884 [main] WARN org.apache.pig.PigServer - Encountered Warning USING_OVERLOADED_FUNCTION 1 time(s).
2024-03-26 08:08:48,884 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
grunt> describe sent_join;
2024-03-26 08:09:00,294 [main] WARN org.apache.pig.PigServer - Encountered Warning USING_OVERLOADED_FUNCTION 1 time(s).
2024-03-26 08:09:00,294 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
sent_join: {data_tokens::id: bytearray,data_tokens::text: bytearray,data_tokens:
:words: chararray,word_dict::word: chararray,word_dict::rating: int}
grunt>
```

```
Player || Applications Places System VMware Workstation 17 Player (Non-commercial use only)
File Edit View Search Terminal Help
training@localhost:~$ cd Downloads
training@localhost:~/Downloads$ pig
2024-03-26 08:08:48,884 [main] WARN org.apache.pig.PigServer - Encountered Warning USING OVERLOADED_FUNCTION 1 time(s).
2024-03-26 08:08:48,884 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
grunt> describe sent_join;
2024-03-26 08:09:00,294 [main] WARN org.apache.pig.PigServer - Encountered Warning USING OVERLOADED_FUNCTION 1 time(s).
2024-03-26 08:09:00,294 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
sent_join: {data_tokens::id: bytearray,data_tokens::text: bytearray,data_tokens::words: chararray,word_dict::word: chararray,word_dict::rating: int}
grunt> sent_extract = FOREACH sent_join generate data_tokens::id as id, data_tokens::text as text, word_dict::rating as rate;
2024-03-26 08:12:52,014 [main] WARN org.apache.pig.PigServer - Encountered Warning USING OVERLOADED_FUNCTION 1 time(s).
2024-03-26 08:12:52,014 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
grunt> describe sent_extract;
2024-03-26 08:13:17,509 [main] WARN org.apache.pig.PigServer - Encountered Warning USING_OVERLOADED FUNCTION 1 time(s).
2024-03-26 08:13:17,509 [main] WARN org.apache.pig.PigServer - Encountered Warning IMPLICIT_CAST_TO_CHARARRAY 1 time(s).
sent_extract: {id: bytearray,text: bytearray,rate: int}
grunt>
```

A screenshot of a Windows desktop environment. The taskbar at the bottom shows various pinned icons and the date/time as 3/26/2024 10:18 AM. The main window is a terminal or command-line interface titled "training@localhost:~\$ Downloads". The terminal window is filled with a massive amount of text, consisting primarily of commas and parentheses, which appears to be the output of a 'grunt' command. The text is organized into several sections separated by double newlines. The first section starts with "Gruntfile.js" and ends with "done." The subsequent sections are labeled with file names like "index.html", "index.js", "script.js", "style.css", and "style.less", each followed by its respective file content. The scroll bar on the right side of the terminal window is visible, indicating the full output cannot be displayed in the current view.

```
daoudra-training.cappark-student-rev.old\5.4.3a - VMware Workstation 17 Player (Non-commercial use only)
Player || E X
Applications Places System
File Edit View Search Terminal Help
B1>,,)
((<ed><U+00A0><U+00BC><ed><U+00B6><U+0098> <ed><U+00A0><U+00BC><ed><U+00B6><U+00
98> <ed><U+00A0><U+00BC><ed><U+00B6><U+0098> <ed><U+00A0><U+00BC><ed><U+00B6><U+
0098>" ,FALSE) ,)
((cuz of<ed><U+00A0><U+00BD><ed><U+00B9><U+008F> @narendramodi <ed><U+00A0><U+00
BD><ed><U+00B9><U+008F> #demonetization <ed><U+00A0><U+00BD><ed><U+00B1><U+0089
>Barbadi done of,,) )
(@DonMufflerMan <ed><U+00A0><U+00BD><ed><U+00B8><U+0082><ed><U+00A0><U+00BD><ed
><U+00B8><U+0080><ed><U+00A0><U+00BD><ed><U+00B8><U+00A0><ed><U+00A0><U+00BD><ed
><U+00B8><U+00AE>" ,FALSE) ,)
( (#NoteNahiPMBadlo #<U+0938><U+0902><U+0938><U+0926> _<U+092A><U+0941><U+0915><U
+093E><U+0930><U+0947> PM _<U+092A><U+094D><U+092F><U+093E><U+0930><U+0947> #Maya
watiNextUPCM #BSP #invito" ,FALSE) ,)
((But best thing was comments that followed it.. <ed><U+00A0><U+00BD><ed><U+00B8
><U+0082> <ed><U+00A0><U+00BD><ed><U+00B8><U+0082> <ed><U+00A0><U+00BD><ed><U+00
B8><U+0082> https://t.co/o9KrTK2Zfq" ,FALSE) ,)
((Kejri & Mamta has lost thousands of crores and u want then to keep calm? <
ed><U+00A0><U+00BD><ed><U+00B8><U+008B><ed><U+00A0><U+00BD><ed><U+00B8><U+0082>
<ed><U+00A0><U+00BD><ed><U+00B8><U+008B>" ,FALSE) ,)
((<ed><U+00A0><U+00BD><ed><U+00B8><U+0082><ed><U+00A0><U+00BD><ed><U+00B8><U+008
2><ed><U+00A0><U+00BD><ed><U+00B8><U+0082><ed><U+00A0><U+00BD><ed><U+00B8><U+008
2><ed><U+00A0><U+00BD><ed><U+00B8><U+0082>" ,FALSE) ,)
((,,))
grunt>
```

```
Cloudia-training-capspark-student-rev.collo4.3a - VMware Workstation 17 Player [Non-commercial use only]
Player Applications Places System Help
File Edit View Search Terminal Help
training@localhost: ~ (Downloads)
Computer
trainings
Terminal
Train
grub
Eclipse
student
rint new notes! And now), -0.6666666666666666)
(("8000","RT @UnSubtleDesi: Kejriwal posts pic of dead robber and claims it's #demonetization related death? How shameless has this man become? https://t.co/0"), -2.5)
((How long, successful and sustainable will be this strategic game of #DeMonetization against Demons? ), 3.0)
((Only noise, chaos & disruptions by obstructionist #@" ), -2.0)
((Only noise, chaos & disruptions by obstructio@ https://t.co/zVE7MYt04G" ), -2.0)
((5% bad idea, poor implementation" ), -2.0)
((25% good idea, poor implementation" ), -2.0)
((No there r many, we cal them by many names like C#%), 2.0)
((Akhilesh=not good,black money is good) , 3.0)
((If not for Aam Aadmi, listen to them no PM Modi?" ), -1.0)
((And respect their decision,but support oppositio@" ), 2.0)
((And respect their decision,but support opposition just b'coz of party") , 2.0)
((Aim of #demonetization laudable, but Govt has no road map2create... https://t.co/A4Geu9ch0v" ), -1.0)
((Enough jokes on #Demonetization, also no more posts on politics or social affairs...) , -1.0)
((RT @kanimozhi: Everyone seems to hate the rich, even the rich hates richer and the richer hates the richest. #Demonetization" ), -1.333333333333333)
(( the avg indian wants corruptn free india.. So in d name of black money, every body agrees) , 1.0)
grunt>
```

The screenshot shows the Hue interface running in Mozilla Firefox. The title bar indicates it's on a VMware Workstation 17 Player (Non-commercial use only). The browser address bar shows the URL as `http://localhost:5433/hue/project/Sentiment_Analysis_Shubham_Rali/Analyzed_Tweets`. The page header includes the Hue logo, a navigation bar with links like Home, Clusters, Hue, HIVE RM, Spark UI (local), Spark Doc, Solr Admin UI, Kite SDK Doc, and a search bar. Below the header is a main content area titled "File Browser". It features a search bar and a "Actions" dropdown. The main view displays a list of files and folders under the path "Sentiment_Analysis_Shubham_Rali / Analyzed_Tweets". The list includes:

Name	Size	User	Group	Permissions	Date
training	0 bytes	training	supergroup	rwxrwxrwx	March 26, 2024 08:29 AM
training	0 bytes	training	supergroup	rwxrwxrwx	March 26, 2024 08:30 AM
supergroup	463.0 kB	training	supergroup	rwxrwxrwx	March 26, 2024 08:30 AM
success	0 bytes				March 26, 2024 08:30 AM
part-r-00000	0 bytes				March 26, 2024 08:30 AM

On the right side of the browser window, there are several tabs labeled "File Browser", "Job Browser", "Hive", "HDFS", "Hive", and "Hive". The status bar at the bottom right shows the date and time as "Tue Mar 26, 08:31".

The image shows the Windows taskbar at the bottom of a computer screen. It features several pinned icons for frequently used applications like File Explorer, Control Panel, and the Start button. There are also icons for Microsoft Edge, File Explorer, File History, Task View, and File Explorer. The system tray on the right includes icons for battery status, signal strength, volume, and the date/time (10:31 AM, 3/26/2024).

[training@localhost Downloads]\$ beeline -u jdbc:hive2://localhost:10000 -n train
scan complete in 4ms
Connecting to jdbc:hive2://localhost:10000
Connected to: Apache Hive (version 1.1.0-cdh5.4.3)
Driver: Hive JDBC (version 1.1.0-cdh5.4.3)
Transaction isolation: TRANSACTION_REPEATABLE_READ
Beeline version 1.1.0-cdh5.4.3 by Apache Hive
0: jdbc:hive2://localhost:10000>

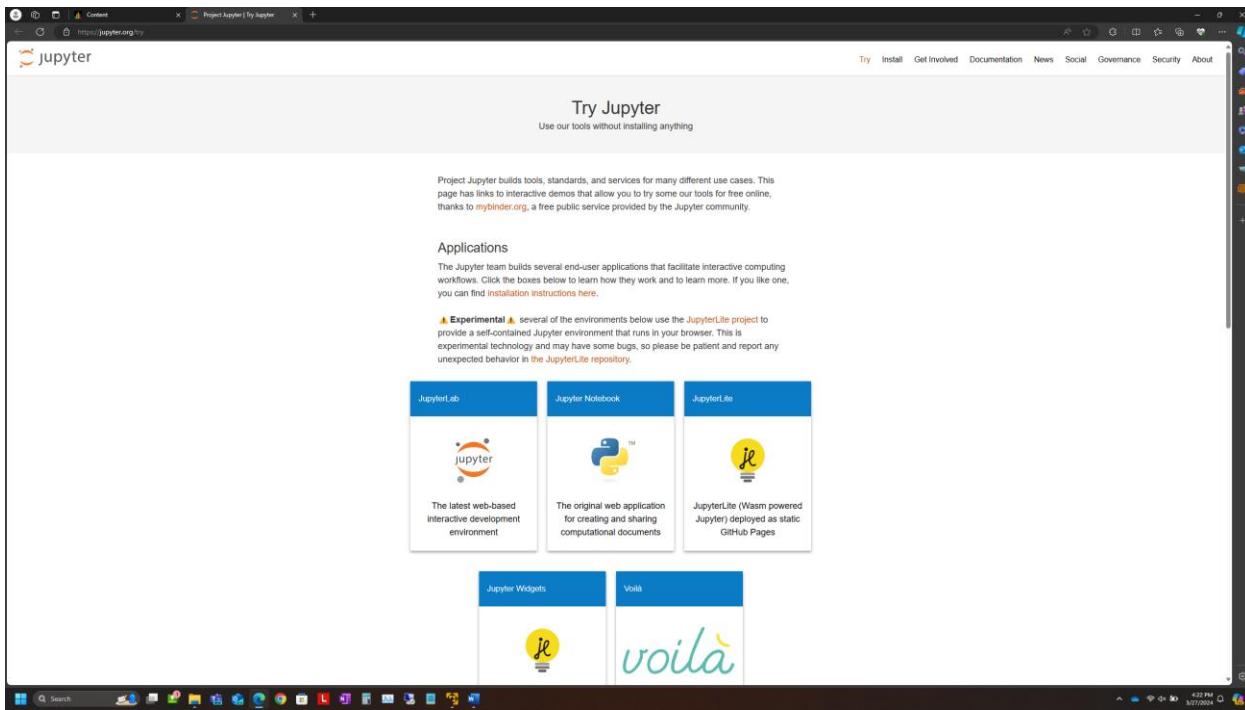
[training@localhost Downloads]\$ beeline -u jdbc:hive2://localhost:10000 -n train
scan complete in 4ms
Connecting to jdbc:hive2://localhost:10000
Connected to: Apache Hive (version 1.1.0-cdh5.4.3)
Driver: Hive JDBC (version 1.1.0-cdh5.4.3)
Transaction isolation: TRANSACTION_REPEATABLE_READ
Beeline version 1.1.0-cdh5.4.3 by Apache Hive
0: jdbc:hive2://localhost:10000>

[training@localhost Downloads]\$ beeline -u jdbc:hive2://localhost:10000 -n train
scan complete in 4ms
Connecting to jdbc:hive2://localhost:10000
Connected to: Apache Hive (version 1.1.0-cdh5.4.3)
Driver: Hive JDBC (version 1.1.0-cdh5.4.3)
Transaction isolation: TRANSACTION_REPEATABLE_READ
Beeline version 1.1.0-cdh5.4.3 by Apache Hive
0: jdbc:hive2://localhost:10000>

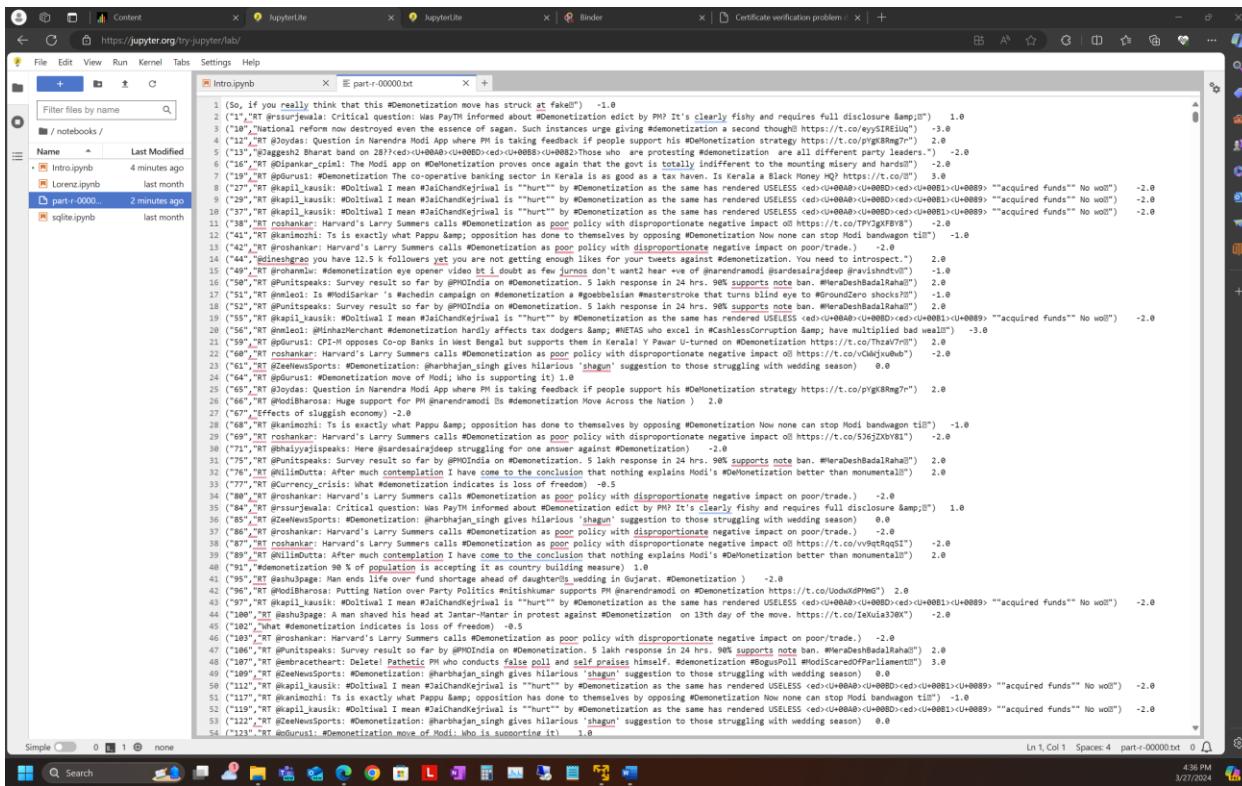
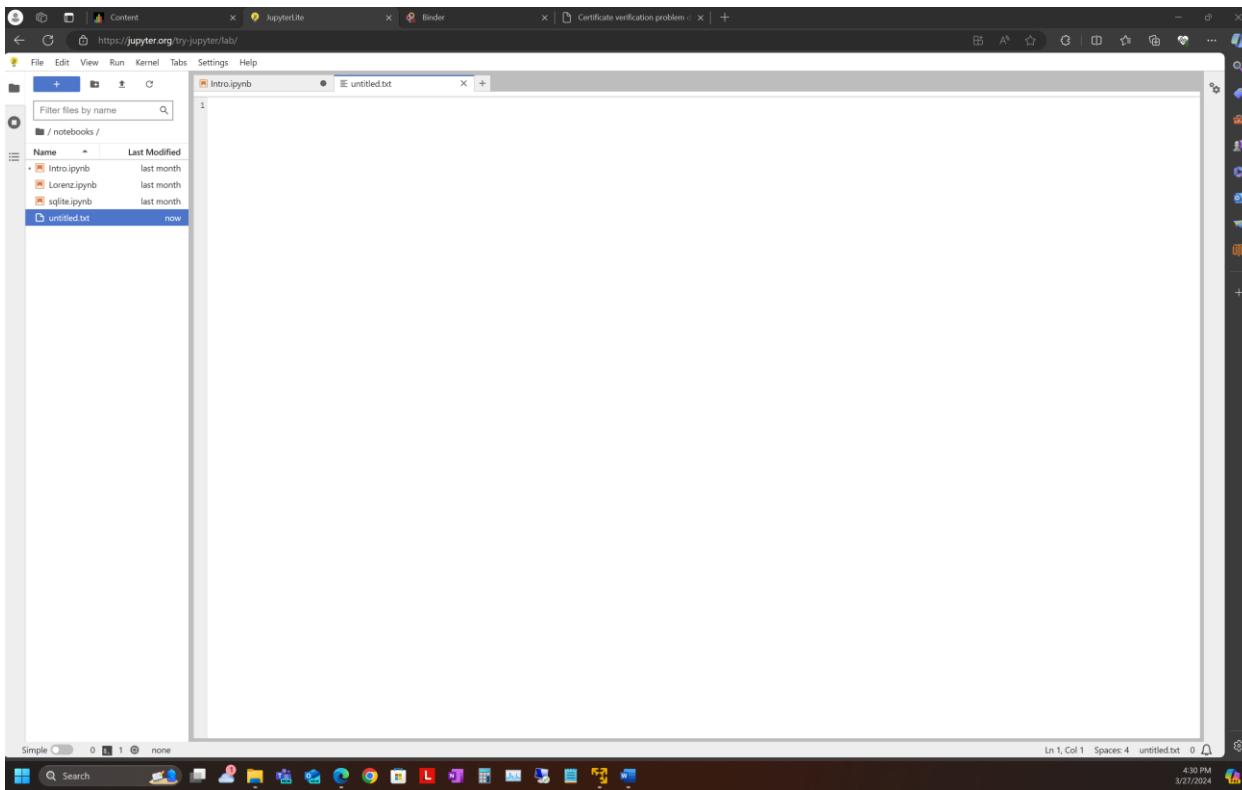
```
INFO : Ended Job = job_1711474523269_0001
INFO : Copying data to local directory /Sentiment_Analysis_Shubham_Ralli/Analyzed_Tweets from hdfs://localhost:8020/tmp/hive/training/70519c09-232c-4ffd-8490-8adf623eca6a/hive_2024-03-26_11-07-53_299_80704652554207409-2/-mr-10000
INFO : Copying data to local directory /Sentiment_Analysis_Shubham_Ralli/Analyzed_Tweets from hdfs://localhost:8020/tmp/hive/training/70519c09-232c-4ffd-8490-8adf623eca6a/hive_2024-03-26_11-07-53_299_80704652554207409-2/-mr-10000
INFO : No rows affected (30.278 seconds)
0: jdbc:hive2://localhost:10000> [training@localhost Downloads]$ ls
AFINN.txt          pig_1709776905576.log  pig_1711467510779.log
Ass_14.zip          pig_1709827616813.log  Police_Incidents.tsv
data               pig_1709833432234.log  Police_Incidents.zip
data.zip           pig_1709833692176.log  Shubham_Ralli_Pig.pig
incidents_tab_clean.tsv  pig_1711464947363.log  Tweets.csv
_MACOSX             pig_1711465095319.log

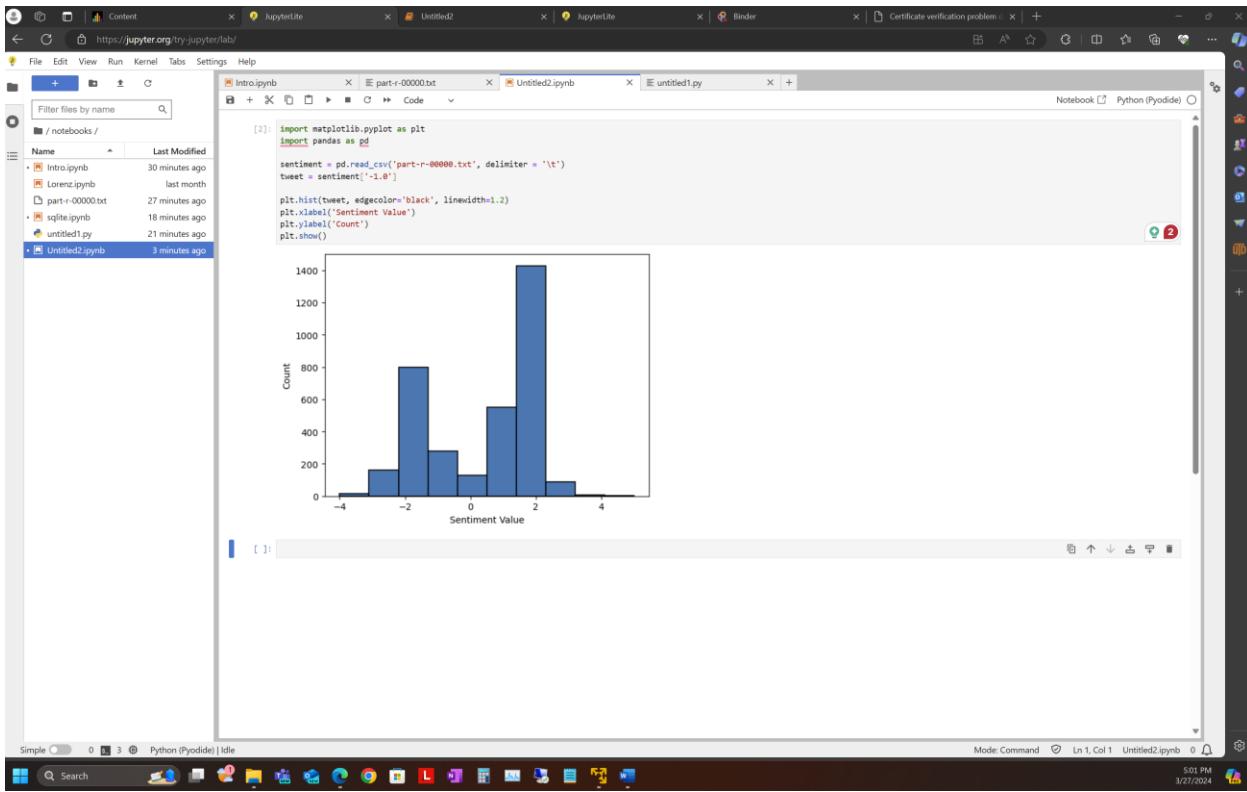
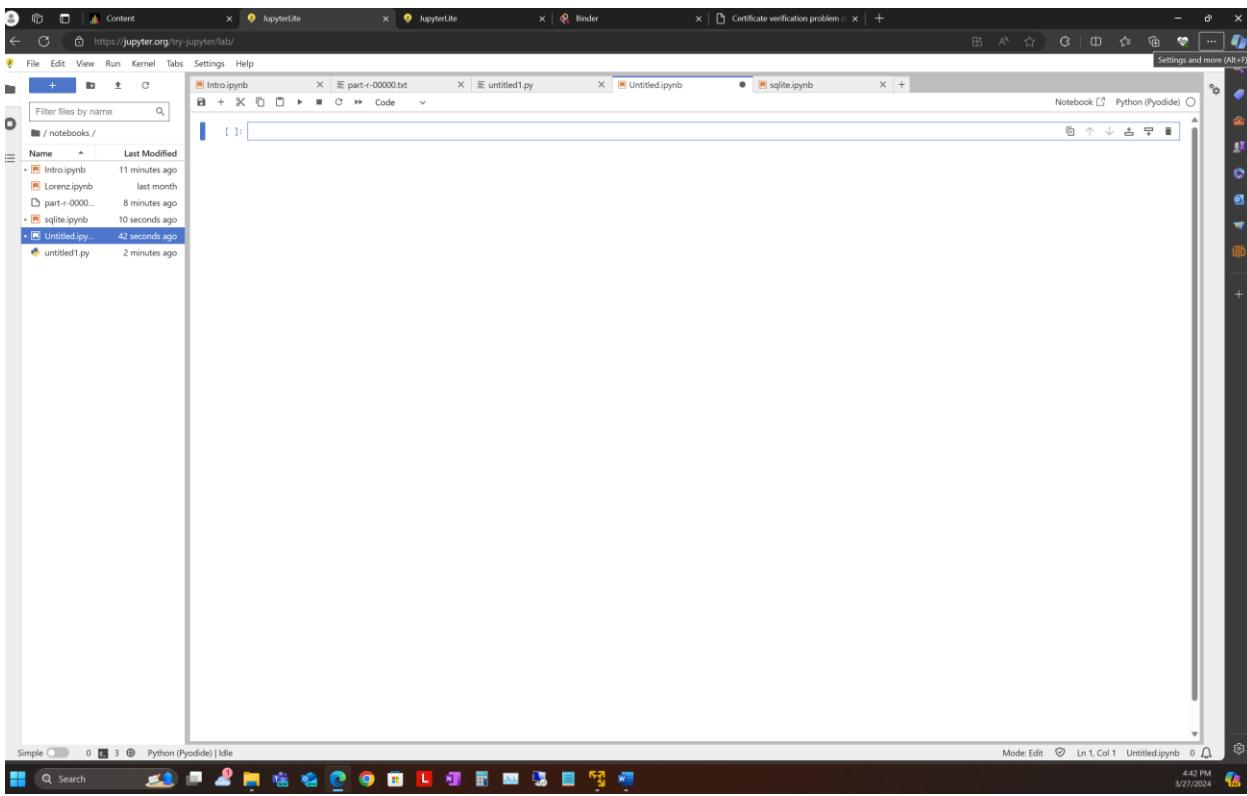
[training@localhost Downloads]$ cd /
[training@localhost /]$ sudo hdfs dfs -get /Sentiment_Analysis_Shubham_Ralli/Analyzed_Tweets/part-r-00000 /
[training@localhost /]$ ls
bin   etc        lib      media    part-r-00000  sbin      sys   var
boot Flume_Shubham_Ralli lib64    mnt      proc      selinux  tmp
dev   home       lost+found opt      root      srv      usr

[training@localhost /]$
```



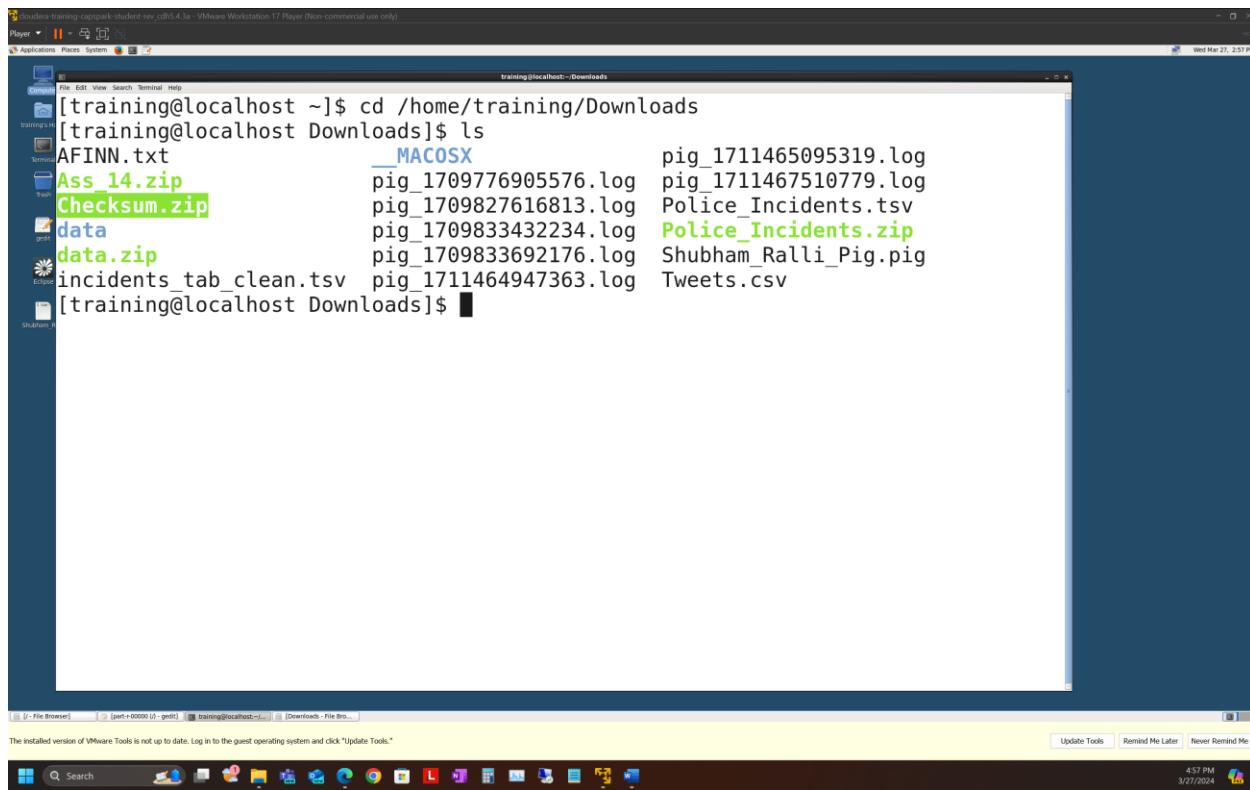
A screenshot of a web browser displaying the "JupyterLab" interface at https://jupyter.org/try/jupyter/lab/. The interface includes a left sidebar for file management, a central notebook workspace, and a right sidebar for user profile and settings. The notebook workspace shows a single open notebook titled "intro.ipynb" with the title "Introduction to the JupyterLab and Jupyter Notebooks". The notebook content includes a short introduction, a warning about experimental nature, and sections on "JupyterLab" and "Jupyter Notebooks". It also contains a code cell for generating and visualizing random data using NumPy and Matplotlib. The browser's taskbar and system tray are visible at the bottom.





Some inferences that could be made from the histogram are as follows:

1. Most tweets convey positive sentiments, indicating a generally favorable outlook among users toward discussing the demonetization of currencies.
2. Positive sentiment may reflect a positive reception of people towards a specific event or individual, as Kejriwal mentioned in their tweets.
3. The second highest sentiment was at -2, indicating some people were negative about demonetization. The scarcity of neutral or negative sentiments suggests that the topic evokes strong positive emotions among Twitter users.
4. Alternatively, the imbalance in sentiment distribution could stem from biases in data collection, such as sampling primarily from users with a history of expressing positive sentiments or from limitations in the sentiment analysis algorithm, possibly favoring positive interpretations.



The screenshot shows a terminal window titled "training@localhost:~> Downloads" running on a Linux desktop. The terminal displays the following command and its output:

```
[training@localhost ~]$ cd /home/training/Downloads
[training@localhost Downloads]$ ls
AFINN.txt          _MACOSX           pig_1711465095319.log
Ass_14.zip         pig_1709776905576.log  pig_1711467510779.log
Checksum.zip       pig_1709827616813.log  Police_Incidents.tsv
data              pig_1709833432234.log  Police_Incidents.zip
data.zip          pig_1709833692176.log  Shubham_Ralli_Pig.pig
incidents_tab_clean.tsv  pig_1711464947363.log Tweets.csv
[training@localhost Downloads]$
```

The terminal window is part of a desktop environment with a dark blue theme. Below the terminal, the desktop taskbar shows several icons and a message about VMware Tools being out of date. The system tray indicates the date as March 21, 2024, and the time as 4:57 PM.

```
[training@localhost ~]$ cd /home/training/Downloads
[training@localhost Downloads]$ ls
AFINN.txt          _MACOSX             pig_1711465095319.log
Ass_14.zip         pig_1709776905576.log  pig_1711467510779.log
Checksum.zip      pig_1709827616813.log  Police_Incidents.tsv
data              pig_1709833432234.log  Police_Incidents.zip
data.zip          pig_1709833692176.log  Shubham_Ralli_Pig.pig
incidents_tab_clean.tsv  pig_1711464947363.log  Tweets.csv
[training@localhost Downloads]$ unzip Checksum.zip
Archive: Checksum.zip
  inflating: checksum.sh
replace _MACOSX/.checksum.sh? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
  inflating: _MACOSX/.checksum.sh
[training@localhost Downloads]$ ls
AFINN.txt          _MACOSX             pig_1711467510779.log
Ass_14.zip         pig_1709776905576.log  Police_Incidents.tsv
checksum.sh        pig_1709827616813.log  Police_Incidents.zip
Checksum.zip      pig_1709833432234.log  Shubham_Ralli_Pig.pig
data              pig_1709833692176.log  Tweets.csv
data.zip          pig_1711464947363.log
incidents_tab_clean.tsv  pig_1711465095319.log
[training@localhost Downloads]$
```

```
[training@localhost Downloads]$ ls
AFINN.txt          _MACOSX             pig_1711465095319.log
Ass_14.zip         pig_1709776905576.log  pig_1711467510779.log
Checksum.zip      pig_1709827616813.log  Police_Incidents.tsv
data              pig_1709833432234.log  Police_Incidents.zip
data.zip          pig_1709833692176.log  Shubham_Ralli_Pig.pig
incidents_tab_clean.tsv  pig_1711464947363.log  Tweets.csv
[training@localhost Downloads]$ unzip Checksum.zip
Archive: Checksum.zip
  inflating: checksum.sh
replace _MACOSX/.checksum.sh? [y]es, [n]o, [A]ll, [N]one, [r]ename: y
  inflating: _MACOSX/.checksum.sh
[training@localhost Downloads]$ ls
AFINN.txt          _MACOSX             pig_1711467510779.log
Ass_14.zip         pig_1709776905576.log  Police_Incidents.tsv
checksum.sh        pig_1709827616813.log  Police_Incidents.zip
Checksum.zip      pig_1709833432234.log  Shubham_Ralli_Pig.pig
data              pig_1709833692176.log  Tweets.csv
data.zip          pig_1711464947363.log
incidents_tab_clean.tsv  pig_1711465095319.log
[training@localhost Downloads]$ chmod 755 checksum.sh
[training@localhost Downloads]$ ./checksum.sh
793575cc1b4550006e0f1c6c29350653  output.txt
[training@localhost Downloads]$
```

The screenshot shows a terminal window titled "training@localhost:~/Downloads" running on a Linux system. The terminal displays the following command-line session:

```
inflating: __MACOSX/.checksum.sh
[training@localhost Downloads]$ ls
AFINN.txt
Ass_14.zip
checksum.sh
Checksum.zip
data
data.zip
incidents_tab_clean.tsv
__MACOSX
[training@localhost Downloads]$ chmod 755 checksum.sh
[training@localhost Downloads]$ ./checksum.sh
793575cc1b4550006e0f1c6c29350653  output.txt
[training@localhost Downloads]$ rm Checksum.zip checksum.sh output.txt
rm: remove regular file `Checksum.zip'? y
rm: remove regular file `checksum.sh'? y
rm: remove regular file `output.txt'? y
[training@localhost Downloads]$ ls
AFINN.txt
Ass_14.zip
data
data.zip
incidents_tab_clean.tsv
__MACOSX
[training@localhost Downloads]$
```

The terminal window is part of a desktop environment with a blue header bar. The desktop icons include "File Browser", "[path+00000 (.) - gedit]", "[training@localhost:~] - terminal", "[Downloads - File Bro...]", "Update Tools", "Remind Me Later", and "Never Remind Me". The date and time at the bottom right are "Wed Mar 27, 3:00 PM" and "3/27/2024".

Checksum Value: 793575cc1b4550006e0f1c6c29350653