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Last login: Thu Nov 26 22:45:17 on ttys001
(base) lejiahu@a-10-27-20-110 \sim % ssh -Y lh2514@dumbo.es.its.nyu.edu
Password:
Last login: Thu Nov 26 22:45:39 2020 from a-10-27-20-110.dynapool.vpn.nyu.edu
Rocks 6.2 (SideWinder)
Profile built 16:54 24-Aug-2015
Kickstarted 16:58 24-Aug-2015
       THIS NYU-OPERATED FACILITY MAY BE ACCESSED ONLY BY AUTHORIZED USERS.
           UNAUTHORIZED PERSONS ... TYPE 'exit' NOW
See https://wikis.nyu.edu/display/NYUHPC/NYU+HPC+Access+Policy for details
of the access policy. Questions regarding the access policy should be
directed (by e-mail) to security@nyu.edu or (by phone) to 212-998-3333
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https://wikis.nyu.edu/display/NYUHPC/Clusters+-+Dumbo
[lh2514@login-2-1 ~]$ vi DualCrime.java
[lh2514@login-2-1 ~]$ vi DualCrimeMapper.java
[lh2514@login-2-1 ~]$ javac -classpath "$(yarn classpath)" -d . DualCrimeMapper.
[lh2514@login-2-1 ~]$ javac -classpath "$(yarn classpath)" -d . IntSumReducer.ja
[lh2514@login-2-1 ~]$ javac -classpath "$(yarn classpath)":. -d . DualCrime.java
[lh2514@login-2-1 ~]$ jar -cvf DualCrime.jar *.class
added manifest
adding: Airbnb.class(in = 1428) (out= 789)(deflated 44%)
adding: AirbnbMapper.class(in = 2269) (out= 1047)(deflated 53%)
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[lh2514@login-2-1 ~]\$ javac -classpath "\$(yarn classpath)":. -d . DualCri [lh2514@login-2-1 ~]\$ jar -cvf DualCrime.jar *.class added manifest adding: Airbnb.class(in = 1428) (out= 789)(deflated 44%) adding: AirbnbMapper.class(in = 2269) (out= 1047)(deflated 53%) adding: AirbnbReducer.class(in = 1694) (out= 714)(deflated 57%) adding: CrimeCountMapper.class(in = 1743) (out= 735)(deflated 57%) adding: CrimesCountRunner.class(in = 1416) (out= 777)(deflated 45%) adding: DualCrime.class(in = 1437) (out= 794)(deflated 44%) adding: DualCrimeMapper.class(in = 2850) (out= 1449)(deflated 49%) adding: IntSumReducer.class(in = 1694) (out= 714)(deflated 57%) adding: LineCountMapper.class(in = 1478) (out= 596)(deflated 59%)

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adding: LinesCountRunner.class(in = 1374) (out= 755)(deflated 45%)
adding: Main.class(in = 1461) (out= 872)(deflated 40%)
adding: SelectFieldsMapper.class(in = 255) (out= 198)(deflated 22%)
adding: SelectFieldsReducer.class(in = 258) (out= 196)(deflated 24%)
adding: SelectFieldsRunner.class(in = 1765) (out= 933)(deflated 47%)
adding: WordCount.class(in = 1440) (out= 789)(deflated 45%)
adding: WordCountMapper.class(in = 2096) (out= 962)(deflated 54%)
adding: WordCountReducer.class(in = 1700) (out= 717)(deflated 57%)
[lh2514@login-2-1 ~]$ hadoop jar DualCrime.jar DualCrime /user/lh2514/class1/NYC
cleaned.csv /user/lh2514/class1/NYC output42
20/11/26 23:16:41 WARN mapreduce.JobResourceUploader: Hadoop command-line option
 parsing not performed. Implement the Tool interface and execute your applicatio
n with ToolRunner to remedy this.
20/11/26 23:16:42 INFO input.FileInputFormat: Total input paths to process : 1
20/11/26 23:16:42 INFO mapreduce.JobSubmitter: number of splits:1
20/11/26 23:16:42 INFO mapreduce. JobSubmitter: Submitting tokens for job: job 16
04346392376_4848
20/11/26 23:16:43 INFO impl. YarnClientImpl: Submitted application application_16
04346392376 4848
20/11/26 23:16:43 INFO mapreduce. Job: The url to track the job: http://babar.es.
its.nyu.edu:8088/proxy/application_1604346392376_4848/
20/11/26 23:16:43 INFO mapreduce.Job: Running job: job_1604346392376_4848
20/11/26 23:16:48 INFO mapreduce.Job: Job job_1604346392376_4848 running in uber
 mode : false
20/11/26 23:16:48 INFO mapreduce.Job: map 0% reduce 0%
20/11/26 23:16:54 INFO mapreduce.Job:
                                       map 100% reduce 0%
20/11/26 23:16:59 INFO mapreduce.Job: map 100% reduce 100%
20/11/26 23:17:00 INFO mapreduce.Job: Job job_1604346392376_4848 completed succe
ssfully
20/11/26 23:17:00 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=2502
                FILE: Number of bytes written=313681
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=41156268
                HDFS: Number of bytes written=6666
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Data-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=16952
                Total time spent by all reduces in occupied slots (ms)=14370
                Total time spent by all map tasks (ms)=4238
                Total time spent by all reduce tasks (ms)=2395
                Total vcore-milliseconds taken by all map tasks=4238
                Total vcore-milliseconds taken by all reduce tasks=2395
                Total megabyte-milliseconds taken by all map tasks=17358848
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Total megabyte-milliseconds taken by all reduce tasks=14714880
        Map-Reduce Framework
                Map input records=1048576
                Map output records=1005318
                Map output bytes=25694653
                Map output materialized bytes=2498
                Input split bytes=111
                Combine input records=1005318
                Combine output records=252
                Reduce input groups=252
                Reduce shuffle bytes=2498
                Reduce input records=252
                Reduce output records=252
                Spilled Records=504
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=408
                CPU time spent (ms)=10310
                Physical memory (bytes) snapshot=1486221312
                Virtual memory (bytes) snapshot=7473483776
                Total committed heap usage (bytes)=2778202112
        Shuffle Errors
                BAD ID=0
                CONNECTION=0
                IO ERROR=0
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG REDUCE=0
        File Input Format Counters
                Bytes Read=41156157
        File Output Format Counters
                Bytes Written=6666
[lh2514@login-2-1 ~]$ hdfs dfs -cat /user/lh2514/class1/NYC_output42/part-r-0000
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                                         7792
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                                 10
                                         8994
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                                         12356
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CRIMINAL TRESPASS 12 1036 CRIMINAL TRESPASS 2 911 CRIMINAL TRESPASS 3 975 CRIMINAL TRESPASS 4 880 CRIMINAL TRESPASS 5 760 CRIMINAL TRESPASS 6 709 CRIMINAL TRESPASS 7 679 CRIMINAL TRESPASS 9 698 DANGEROUS DRUGS 1 3987 DANGEROUS DRUGS 1 3987 DANGEROUS DRUGS 1 5962 DANGEROUS DRUGS 11 5962 DANGEROUS DRUGS 12 4701 DANGEROUS DRUGS 2 4114 DANGEROUS DRUGS 3 4755 DANGEROUS DRUGS 4 4707 DANGEROUS DRUGS 5 4698 DANGEROUS DRUGS 7 4825 DANGEROUS DRUGS 8 5046 DANGEROUS WEAPONS 1 1797 DANGEROUS WEAPONS 10 1922 DANGEROUS WEAPONS 11 2536 DANGEROUS WEAPONS 12 1957	CRIMINAL	TRESPASS	10	818	
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CRIMINAL TRESPASS 9 698 DANGEROUS DRUGS 1 3987 DANGEROUS DRUGS 10 4838 DANGEROUS DRUGS 11 5962 DANGEROUS DRUGS 12 4701 DANGEROUS DRUGS 2 4114 DANGEROUS DRUGS 3 4755 DANGEROUS DRUGS 4 4707 DANGEROUS DRUGS 5 4698 DANGEROUS DRUGS 6 4400 DANGEROUS DRUGS 7 4825 DANGEROUS DRUGS 8 5046 DANGEROUS DRUGS 9 4835 DANGEROUS WEAPONS 1 1797 DANGEROUS WEAPONS 10 1922 DANGEROUS WEAPONS 11 2536 DANGEROUS WEAPONS 12 1957 DANGEROUS WEAPONS 12 1957 DANGEROUS WEAPONS 2 1534	CRIMINAL	TRESPASS	7	679	
DANGEROUS DRUGS 1 DANGEROUS DRUGS 10 DANGEROUS DRUGS 11 DANGEROUS DRUGS 11 DANGEROUS DRUGS 12 DANGEROUS DRUGS 2 DANGEROUS DRUGS 3 DANGEROUS DRUGS 3 DANGEROUS DRUGS 4 DANGEROUS DRUGS 5 DANGEROUS DRUGS 5 DANGEROUS DRUGS 6 DANGEROUS DRUGS 7 DANGEROUS DRUGS 7 DANGEROUS DRUGS 8 DANGEROUS DRUGS 8 DANGEROUS DRUGS 9 DANGEROUS DRUGS 9 DANGEROUS DRUGS 9 DANGEROUS DRUGS 9 DANGEROUS WEAPONS 1 DANGEROUS WEAPONS 11 DANGEROUS WEAPONS 12	CRIMINAL	TRESPASS	8	768	
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FELONY ASSAULT 3	3198			
FELONY ASSAULT 4	3207			
FELONY ASSAULT 5	3739			
FELONY ASSAULT 6	3707			
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GRAND LARCENY 1	6779			
GRAND LARCENY 10	8747			
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GRAND LARCENY 3	6643			
GRAND LARCENY 4	6873			
GRAND LARCENY 5	7456			
GRAND LARCENY 6	7658			
GRAND LARCENY 7	8108			
GRAND LARCENY 8	8210			
GRAND LARCENY 9	7904			
GRAND LARCENY OF MOTO		1	1114	
GRAND LARCENY OF MOTO		10	1392	
GRAND LARCENY OF MOTO		11	1826	
GRAND LARCENY OF MOTO		12	1799	
GRAND LARCENY OF MOTO		2	922	
GRAND LARCENY OF MOTO		3	1030	
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INTOXICATED &	IMPAIRED DR	IVING	2	1285
INTOXICATED &	IMPAIRED DR	IVING	3	1412
INTOXICATED &	IMPAIRED DR	IVING	4	1228
INTOXICATED &	IMPAIRED DR	IVING	5	1291
INTOXICATED &		IVING	6	1026
INTOXICATED &		IVING	7	1121
INTOXICATED &		IVING	8	1244
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MISCELLANEOUS			2474	
OFF. AGNST PU	3 ORD SENSBL	TY &	0	6
OFF. AGNST PU	B ORD SENSBL	TY &	1	3729
OFF. AGNST PU	B ORD SENSBL	TY &	10	3705
OFF. AGNST PU			11	5302
OFF. AGNST PUI			12	5064
OFF. AGNST PUI			2	3360
OFF. AGNST PUI			3	3916
OFF. AGNST PUI			4	3751
OFF. AGNST PUR			5	3251
OFF. AGNST PUL	3 ORD SENSBL	TY &	6	2800

```
OFF. AGNST PUB ORD SENSBLTY &
                                  7
                                           2864
OFF. AGNST PUB ORD SENSBLTY &
                                  8
                                           3440
OFF. AGNST PUB ORD SENSBLTY &
                                  9
                                           3584
                                  1
OFFENSES AGAINST PUBLIC ADMINI
                                           1383
OFFENSES AGAINST PUBLIC ADMINI
                                           1744
                                  10
OFFENSES AGAINST PUBLIC ADMINI
                                  11
                                           2291
OFFENSES AGAINST PUBLIC ADMINI
                                  12
                                           2062
OFFENSES AGAINST PUBLIC ADMINI
                                  2
                                           1320
OFFENSES AGAINST PUBLIC ADMINI
                                  3
                                           1674
OFFENSES AGAINST PUBLIC ADMINI
                                           1798
OFFENSES AGAINST PUBLIC ADMINI
                                           1907
OFFENSES AGAINST PUBLIC ADMINI
                                           1796
                                  6
OFFENSES AGAINST PUBLIC ADMINI
                                  7
                                           1882
OFFENSES AGAINST PUBLIC ADMINI
                                  8
                                           1820
OFFENSES AGAINST PUBLIC ADMINI
                                  9
                                           1676
PETIT LARCENY
                 0
                          17
PETIT LARCENY
                 1
                          12286
PETIT LARCENY
                 10
                          14980
                          20026
PETIT LARCENY
                 11
PETIT LARCENY
                 12
                          19822
PETIT LARCENY
                 2
                          10354
                 3
PETIT LARCENY
                          12776
PETIT LARCENY
                 4
                         13181
                 5
PETIT LARCENY
                          15110
PETIT LARCENY
                 6
                          14984
                 7
PETIT LARCENY
                         15787
PETIT LARCENY
                 8
                          16023
                 9
PETIT LARCENY
                          14900
ROBBERY 0
                 3
ROBBERY 1
                 2931
ROBBERY 10
                 3132
ROBBERY 11
                 4486
ROBBERY 12
                 4729
ROBBERY 2
                 2274
ROBBERY 3
                 2390
ROBBERY 4
                 2357
ROBBERY 5
                 2836
                 2596
ROBBERY 6
ROBBERY 7
                 2986
                 3137
ROBBERY 8
                 2944
ROBBERY 9
SEX CRIMES
                 0
                          1
                 1
SEX CRIMES
                          1077
SEX CRIMES
                 10
                          951
SEX CRIMES
                 11
                          1163
                 12
SEX CRIMES
                          1086
                 2
SEX CRIMES
                          722
                 3
SEX CRIMES
                          863
SEX CRIMES
                 4
                          827
                 5
SEX CRIMES
                          955
                          997
SEX CRIMES
                 6
                 7
SEX CRIMES
                          1060
```

```
SEX CRIMES
                8
                        1050
                9
SEX CRIMES
                        1028
THEFT-FRAUD
                1
                        931
THEFT-FRAUD
                10
                        931
THEFT-FRAUD
                11
                        967
                12
THEFT-FRAUD
                        891
THEFT-FRAUD
                2
                        852
THEFT-FRAUD
                3
                        1045
THEFT-FRAUD
                4
                        960
                5
THEFT-FRAUD
                        811
THEFT-FRAUD
                6
                        749
                7
THEFT-FRAUD
                        778
                8
THEFT-FRAUD
                        741
THEFT-FRAUD
                9
                        816
VEHICLE AND TRAFFIC LAWS
                                         1
                                         878
VEHICLE AND TRAFFIC LAWS
                                 1
VEHICLE AND TRAFFIC LAWS
                                 10
                                         1102
VEHICLE AND TRAFFIC LAWS
                                 11
                                         1505
VEHICLE AND TRAFFIC LAWS
                                 12
                                         1474
VEHICLE AND TRAFFIC LAWS
                                 2
                                         769
VEHICLE AND TRAFFIC LAWS
                                 3
                                         955
VEHICLE AND TRAFFIC LAWS
                                 4
                                         939
VEHICLE AND TRAFFIC LAWS
                                 5
                                         1112
VEHICLE AND TRAFFIC LAWS
                                 6
                                         1104
VEHICLE AND TRAFFIC LAWS
                                 7
                                         1118
VEHICLE AND TRAFFIC LAWS
                                 8
                                         1095
                                 9
VEHICLE AND TRAFFIC LAWS
                                         998
[lh2514@login-2-1 ~]$ vi DualCrimeMapper.java
[lh2514@login-2-1 ~]$ javac -classpath "$(yarn classpath)" -d . DualCrimeMapper.
[lh2514@login-2-1 ~]$ javac -classpath "$(yarn classpath)":. -d . DualCrime.java
[lh2514@login-2-1 ~]$ jar -cvf DualCrime.jar *.class
added manifest
adding: Airbnb.class(in = 1428) (out= 789)(deflated 44%)
adding: AirbnbMapper.class(in = 2269) (out= 1047)(deflated 53%)
adding: AirbnbReducer.class(in = 1694) (out= 714)(deflated 57%)
adding: CrimeCountMapper.class(in = 1743) (out= 735)(deflated 57%)
adding: CrimesCountRunner.class(in = 1416) (out= 777)(deflated 45%)
adding: DualCrime.class(in = 1437) (out= 794)(deflated 44%)
adding: DualCrimeMapper.class(in = 2850) (out= 1449)(deflated 49%)
adding: IntSumReducer.class(in = 1694) (out= 714)(deflated 57%)
adding: LineCountMapper.class(in = 1478) (out= 596)(deflated 59%)
adding: LinesCountRunner.class(in = 1374) (out= 755)(deflated 45%)
adding: Main.class(in = 1461) (out= 872)(deflated 40\%)
adding: SelectFieldsMapper.class(in = 255) (out= 198)(deflated 22%)
adding: SelectFieldsReducer.class(in = 258) (out= 196)(deflated 24%)
adding: SelectFieldsRunner.class(in = 1765) (out= 933)(deflated 47%)
adding: WordCount.class(in = 1440) (out= 789)(deflated 45%)
adding: WordCountMapper.class(in = 2096) (out= 962)(deflated 54%)
adding: WordCountReducer.class(in = 1700) (out= 717)(deflated 57%)
[lh2514@login-2-1 ~]$ hadoop jar DualCrime.jar DualCrime /user/lh2514/class1/NYC
cleaned.csv /user/lh2514/class1/NYC_output43
```

```
20/11/26 23:19:34 WARN mapreduce.JobResourceUploader: Hadoop command-line option
 parsing not performed. Implement the Tool interface and execute your applicatio
n with ToolRunner to remedy this.
20/11/26 23:19:35 INFO input.FileInputFormat: Total input paths to process: 1
20/11/26 23:19:37 INFO mapreduce. JobSubmitter: number of splits:1
20/11/26 23:19:37 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_16
04346392376 4853
20/11/26 23:19:37 INFO impl. YarnClientImpl: Submitted application application_16
04346392376 4853
20/11/26 23:19:37 INFO mapreduce. Job: The url to track the job: http://babar.es.
its.nyu.edu:8088/proxy/application_1604346392376_4853/
20/11/26 23:19:37 INFO mapreduce.Job: Running job: job_1604346392376 4853
20/11/26 23:19:42 INFO mapreduce.Job: Job job_1604346392376_4853 running in uber
mode : false
20/11/26 23:19:42 INFO mapreduce.Job: map 0% reduce 0%
20/11/26 23:19:48 INFO mapreduce.Job: map 100% reduce 0%
20/11/26 23:19:54 INFO mapreduce.Job: map 100% reduce 100%
20/11/26 23:19:55 INFO mapreduce.Job: Job job_1604346392376_4853 completed succe
ssfullv
20/11/26 23:19:55 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=491
                FILE: Number of bytes written=309659
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=41156268
                HDFS: Number of bytes written=553
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Data-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=16484
                Total time spent by all reduces in occupied slots (ms)=14430
                Total time spent by all map tasks (ms)=4121
                Total time spent by all reduce tasks (ms)=2405
                Total vcore-milliseconds taken by all map tasks=4121
                Total vcore-milliseconds taken by all reduce tasks=2405
                Total megabyte-milliseconds taken by all map tasks=16879616
                Total megabyte-milliseconds taken by all reduce tasks=14776320
        Map-Reduce Framework
                Map input records=1048576
                Map output records=1005318
                Map output bytes=25393725
                Map output materialized bytes=487
                Input split bytes=111
                Combine input records=1005318
                Combine output records=20
                Reduce input groups=20
```

```
Reduce input records=20
                Reduce output records=20
                Spilled Records=40
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=338
                CPU time spent (ms)=10090
                Physical memory (bytes) snapshot=1479376896
                Virtual memory (bytes) snapshot=7471403008
                Total committed heap usage (bytes)=2783969280
        Shuffle Errors
                BAD ID=0
                CONNECTION=0
                IO ERROR=0
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG REDUCE=0
        File Input Format Counters
                Bytes Read=41156157
        File Output Format Counters
                Bytes Written=553
[lh2514@login-2-1 ~]$ hdfs dfs -cat /user/lh2514/class1/NYC_output43/part-r-0000
ASSAULT 3 & RELATED OFFENSES
                                 0
                                         114430
BURGLARY
                0
CRIMINAL MISCHIEF & RELATED OF
                                         102771
                                 10292
CRIMINAL TRESPASS
                        0
DANGEROUS DRUGS 0
                        56868
DANGEROUS WEAPONS
                                 22953
FELONY ASSAULT
                        43921
FORGERY 0
                10591
GRAND LARCENY
                        96232
GRAND LARCENY OF MOTOR VEHICLE
                                         16223
HARRASSMENT 2
                0
                        133179
INTOXICATED & IMPAIRED DRIVING
                                         15169
MISCELLANEOUS PENAL LAW 0
                                 29221
OFF. AGNST PUB ORD SENSBLTY &
                                         44772
OFFENSES AGAINST PUBLIC ADMINI
                                         21353
PETIT LARCENY
                        180246
                0
ROBBERY 0
                36801
SEX CRIMES
                        11780
                        10472
THEFT-FRAUD
                0
VEHICLE AND TRAFFIC LAWS
                                 0
                                         13050
[lh2514@login-2-1 ~]$
```

Reduce shuffle bytes=487