

Instructions E-commerce Fraud Detection Execution

CS555: Big Data Computing Lab

31st August 2021

1. Install Maven

- a. Open the terminal and type:

sudo apt-get install maven

2. create project directory : (Fraudcustomer)

- a. Browse to home directory

cd /home/iitp

- b. Create project directory

mkdir Fraudcustomer

3. Copy files with directory structure from local system to VM:

- a. Copy the source code files directory

**scp -r /home/iitp/CS-555-Lab-2021/Lab-V/Fraudcustomer/src/
iitp@172.16.27.166:/home/iitp/Fraudcustomer**

- b. Copy the inputdata directory with input file

**scp -r /home/iitp/CS-555-Lab-2021/Lab-V/Fraudcustomer/inputdata/
iitp@172.16.27.166:/home/iitp/Fraudcustomer**

- c. Copy the buildfile pom.xml

**scp -r /home/iitp/CS-555-Lab-2021/Lab-V/Fraudcustomer/pom.xml
iitp@172.16.27.166:/home/iitp/Fraudcustomer**

4. Compile the java source files

- a. Browse to the Fraudcustomer directory

cd Fraudcustomer

- b. Compile source files and create jar file

mvn clean && mvn compile && maven package

5. Start all hadoop services

- a. Browse to hadoop installation sbin sub-directory

```
cd /home/iitp/hadoop-2.6.0/sbin
```

- b. start all services

```
./start-all.sh
```

Note:- Enter password when prompted

6. Create input directory on HDFS

- a. browse to hadoop installation bin folder

```
cd /home/iitp/hadoop-2.6.0/bin
```

- b. create directory (**Fraudcustomer**)

```
./hadoop fs -mkdir Fraudcustomer
```

- c. create directory (**inputdata**) inside Fraudcustomer directory on HDFS

```
./hadoop fs -mkdir Fraudcustomer/inputdata
```

7. Copy the input text file from local directory to HDFS

- a. browse to hadoop installation bin folder

```
cd /home/iitp/hadoop-2.6.0/bin
```

- b. Copy from Local

```
./hadoop dfs -put /home/iitp/Fraudcustomer/inputdata/fraud.txt  
Fraudcustomer/inputdata
```

8. Running the program

- a. browse to the bin directory of hadoop installation

```
cd /home/iitp/hadoop-2.6.0/bin
```

- b. Running in terminal

```
./hadoop jar /home/iitp/Fraudcustomer/target/FraudDetect-1.0.0.jar  
FraudCustomerECommerce Fraudcustomer/inputdata/ Fraudcustomer/outputdata
```

- c. Finding outputs

```
./hadoop dfs -cat Fraudcustomer/outputdata/part-r-00000
```

```
ltp@ltp-virtual-machine: ~/hadoop-2.6.0/bin
File Input Format Counters
  Bytes Read=28266
File Output Format Counters
  Bytes Written=698
ltp@ltp-virtual-machine:~/hadoop-2.6.0/bin$ ./hadoop dfs -cat Fraudcustomer/outputdata/part-r-00000
DEPRECATED: Use of this script to execute hdfs command is deprecated.
Instead use the hdfs command for it.
KEE0169154EJ  Nicholas 13
RTUG988381UW  Cristobal 13
BHHE999914ED  Ana 12
CCM0777171WT  Arthur 12
GGY2333519YS  Allison 12
RHMx673369MP  Isidore 12
UAYD782137YM  Rebekah 12
WAWV324118WZ  Jeanne 12
ZBDA786958DU  Odette 12
BGHV284294HR  Josephine 11
IYDK857199DA  Junko 11
KWV0274304YI  Isaac 11
QCAN136317AD  Rose 11
RLGJ429440GN  Juan 11
TGMV698581WY  Olga 11
CUIY0477759YX  Dean 10
YHER865929EF  Irene 10
YYXE546657XB  Nate 10
RZMY426113MN  Isabel 2
GFKE380824KM  Rene 1
HKV2815386VC  Jerry 1
RRBQ596528BO  Omar 1
SMNU471252NK  Dennis 1
WLUR292384UB  Chris 1
ZOCQ693818CO  Van 1
ZYJX950683JJ  Joyce 1
BPLA457037LB  Alex 0
FJCH868412CB  Ivan 0
HFFA883113FR  Nadine 0
JENA254815NF  Otto 0
ORXR744391XK  Jose 0
YQTD373114TQ  Danny 0
ltp@ltp-virtual-machine:~/hadoop-2.6.0/bin$
```