CSE488: Big Data Analytics
[SPRING 2023]

Assignment 2

How to install cloudera in virtual machine and finally run a Hadoop-MapReduce program

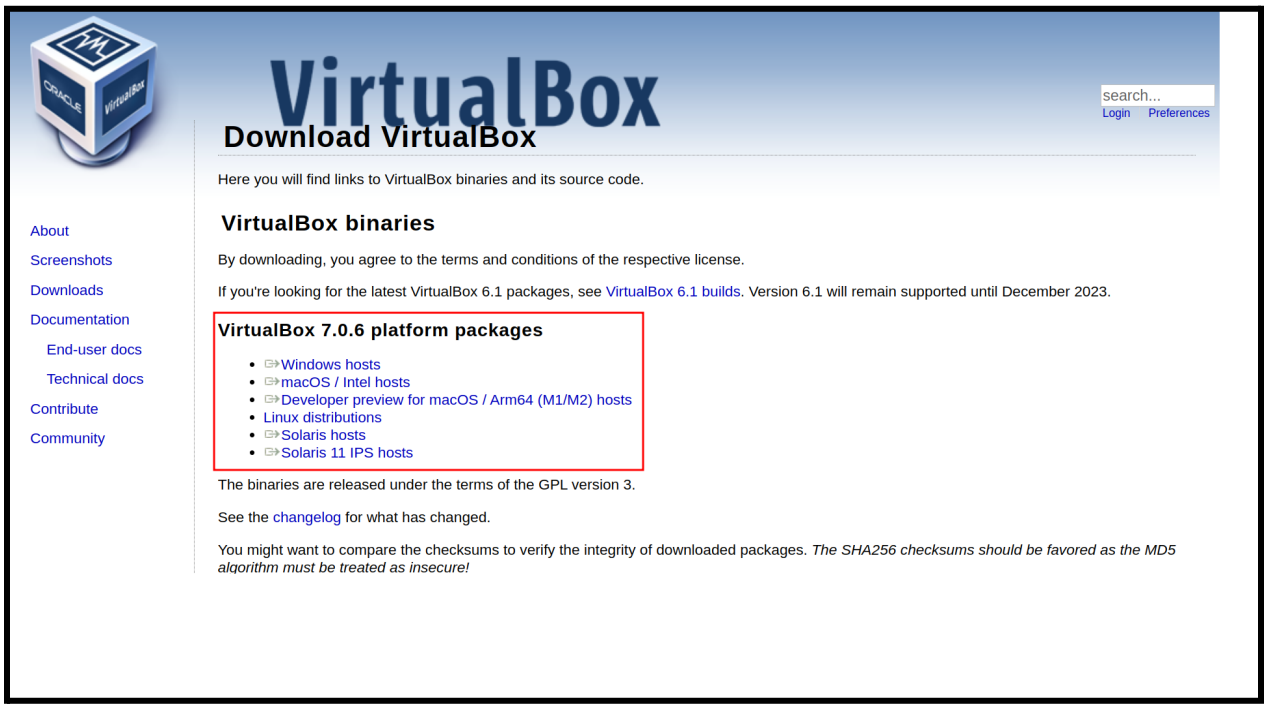
Submitted by:

Student ID: 2020-1-60-215
Student Name: Md. Abdul Ahad Rifat

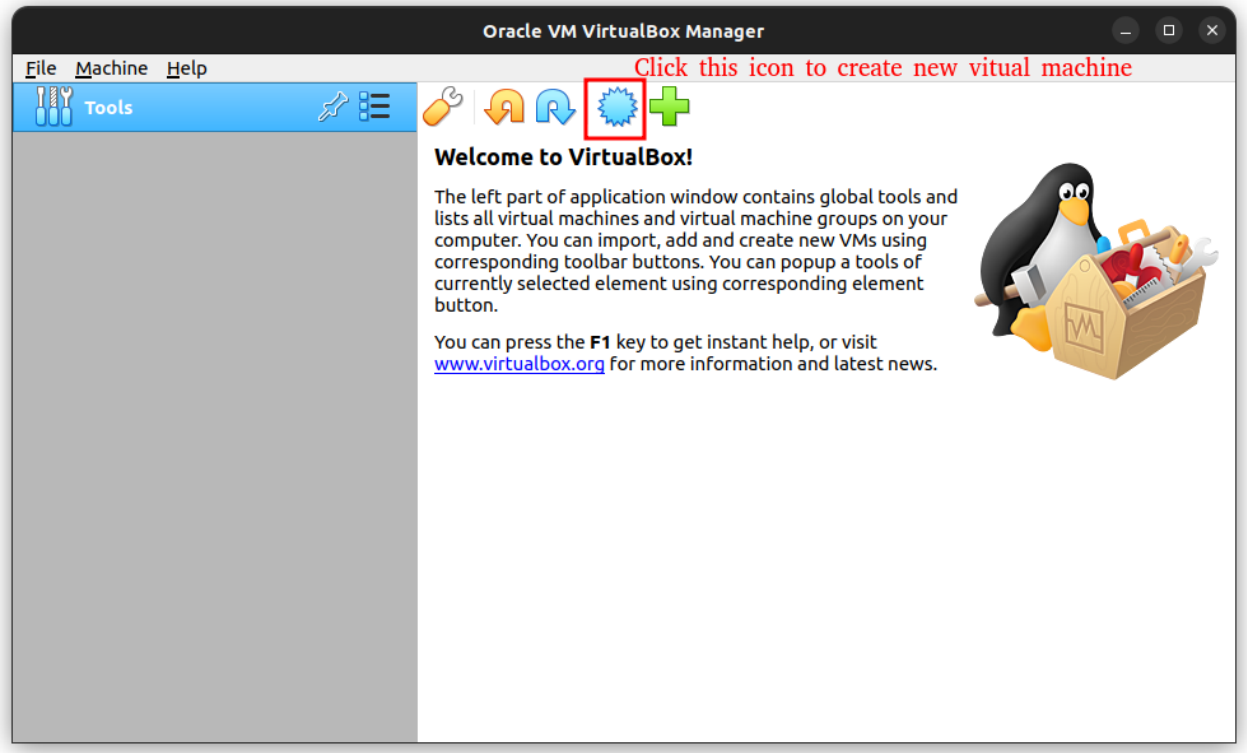
Step 1 :

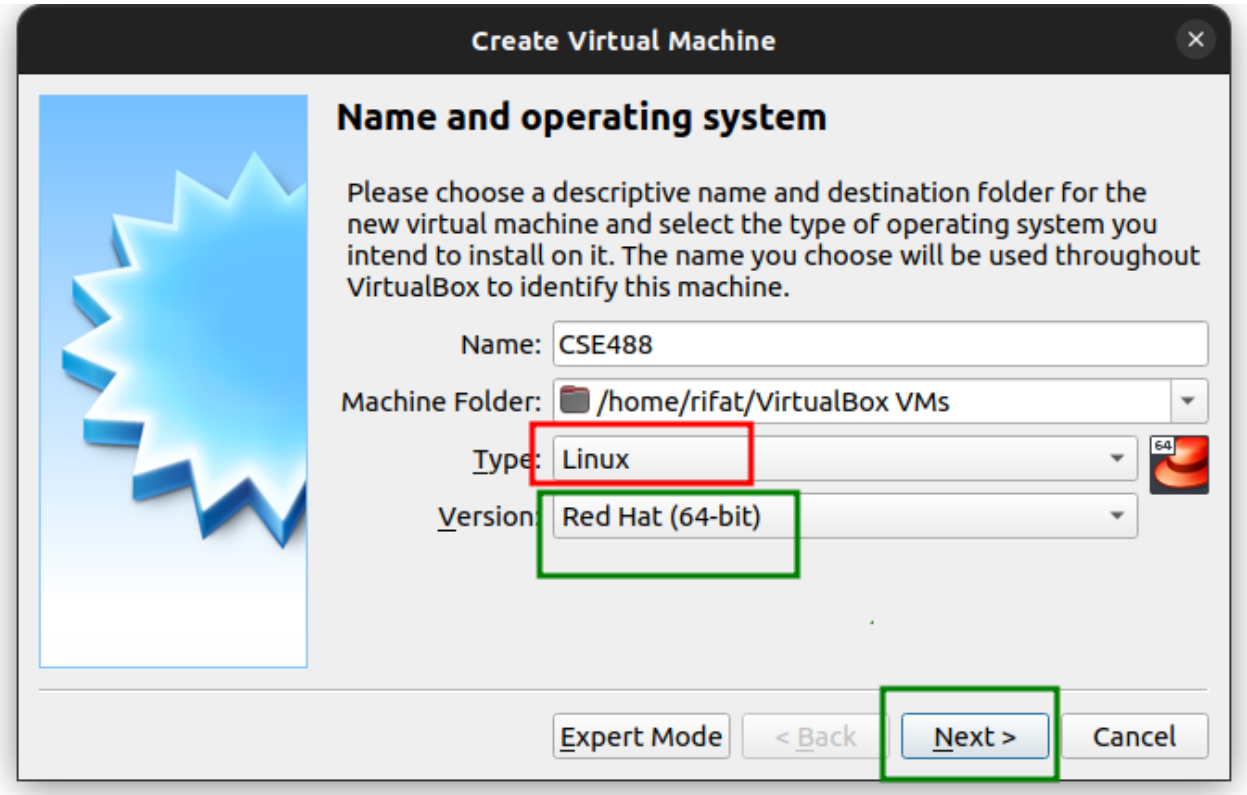
Download and Installation Process of Virtual Machine and Cloudera

1. **First we have to download a virtual machine just like Virtual Box on our local machine.**

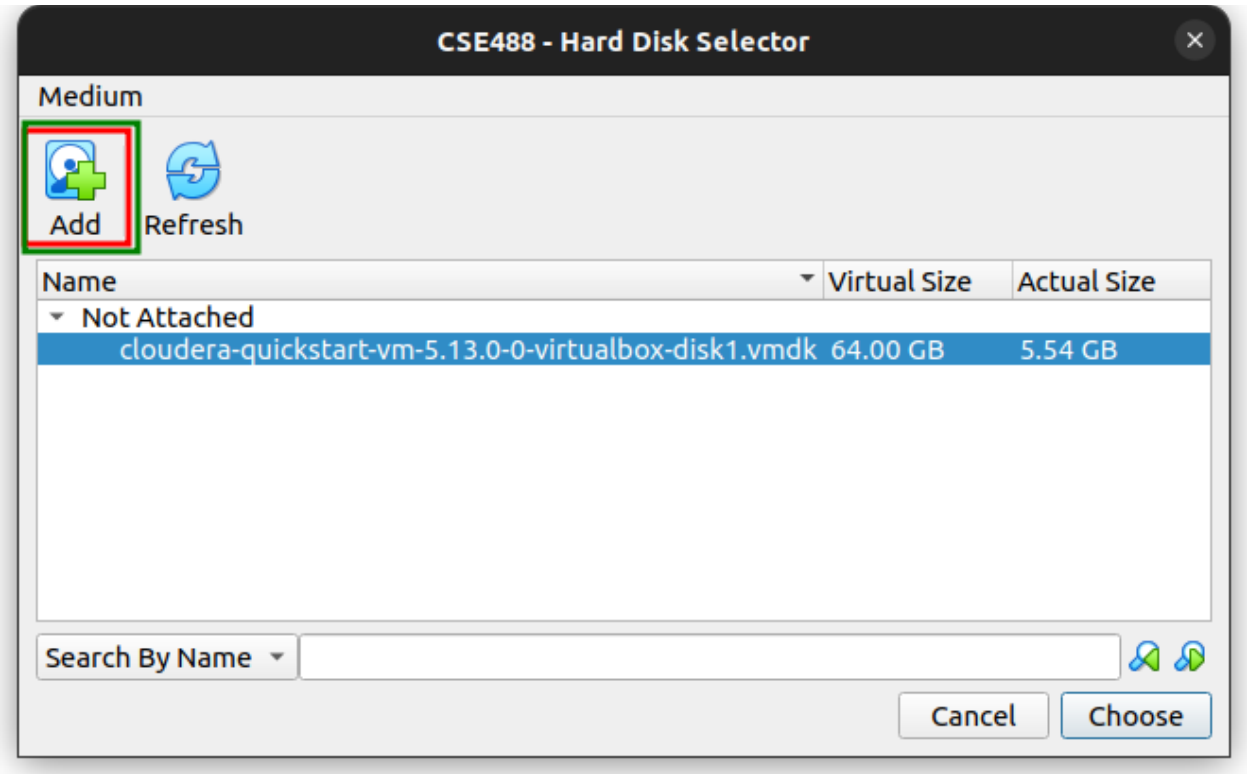


2. **Virtual Box download link https://www.virtualbox.org/wiki/Downloads**
3. **Here we download which one our operating system recommends and after that install it.**
4. **Cloudera download link https://downloads.cloudera.com/demo_vm/virtualbox/cloudera-quickstart-vm-5.13.0-0-virtualbox.zip**
5. **After finishing the download of cloudera we will extract the zip file so we can we can use it**
6. **Now we opening our virtual box and install our cloudera operating system as a guest operating system**

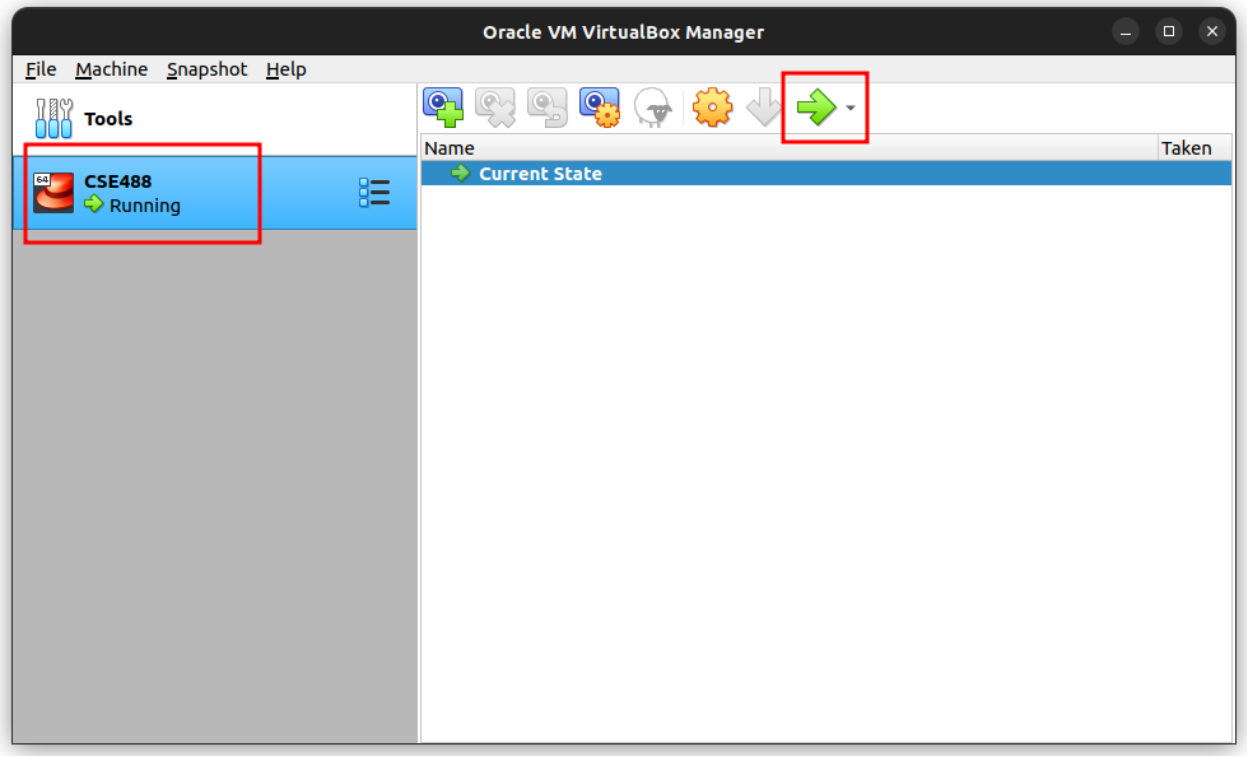

Oracle VM VirtualBox Manager
File Machine Help
Click this icon to create new vitual machine
Tools
Welcome to VirtualBox!
The left part of application window contains global tools and lists all virtual machines and virtual machine groups on your computer. You can import, add and create new VMs using corresponding toolbar buttons. You can popup a tools of currently selected element using corresponding element button.
You can press the F1 key to get instant help, or visit www.virtualbox.org for more information and latest news.

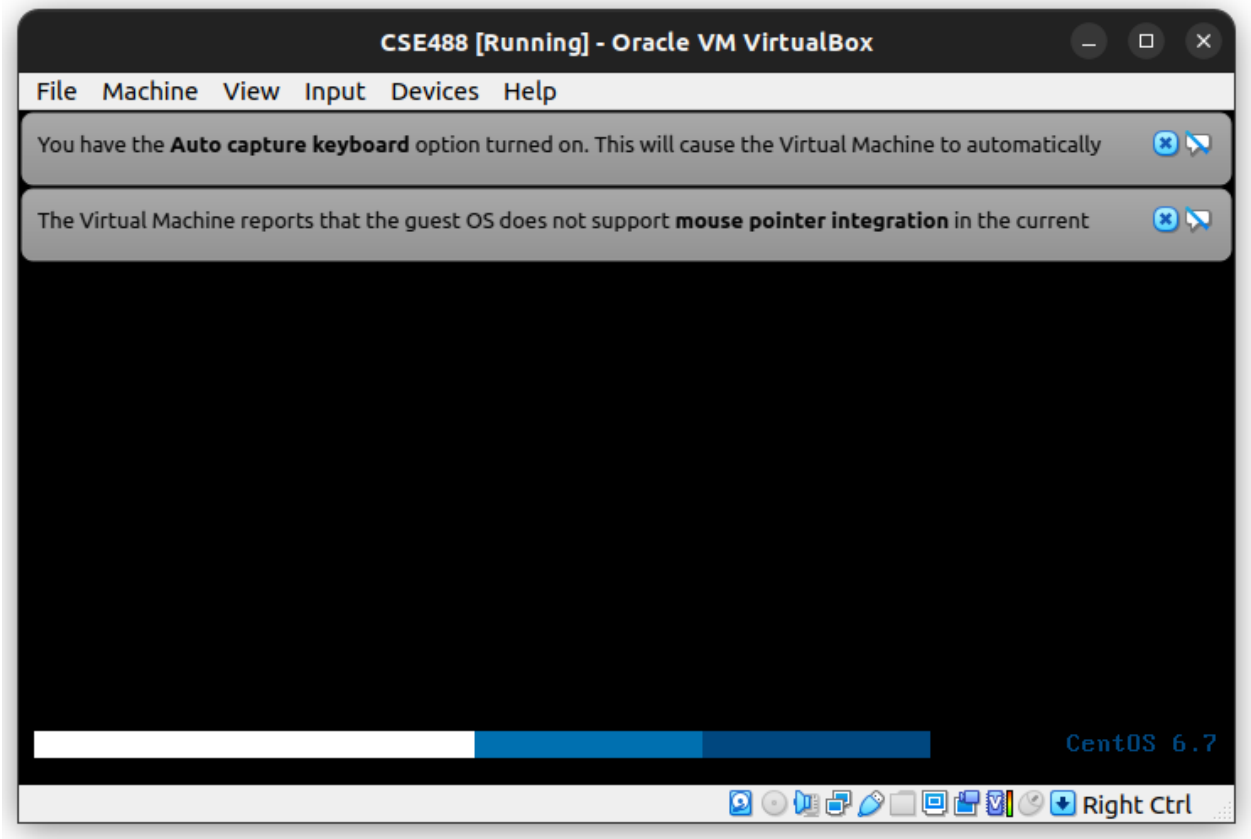

Create Virtual Machine
Name and operating system
Please choose a descriptive name and destination folder for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.
Name: CSE488
Machine Folder: /home/rifat/VirtualBox VMs
Type: Linux
Version: Red Hat (64-bit)
Expert Mode
< Back
Next >
Cancel


Create Virtual Machine
Hard disk
If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.
If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.
The recommended size of the hard disk is 8.00 GB.
Do not add a virtual hard disk
Create a virtual hard disk now
Use an existing virtual hard disk file
Empty
< Back
Create
Cancel

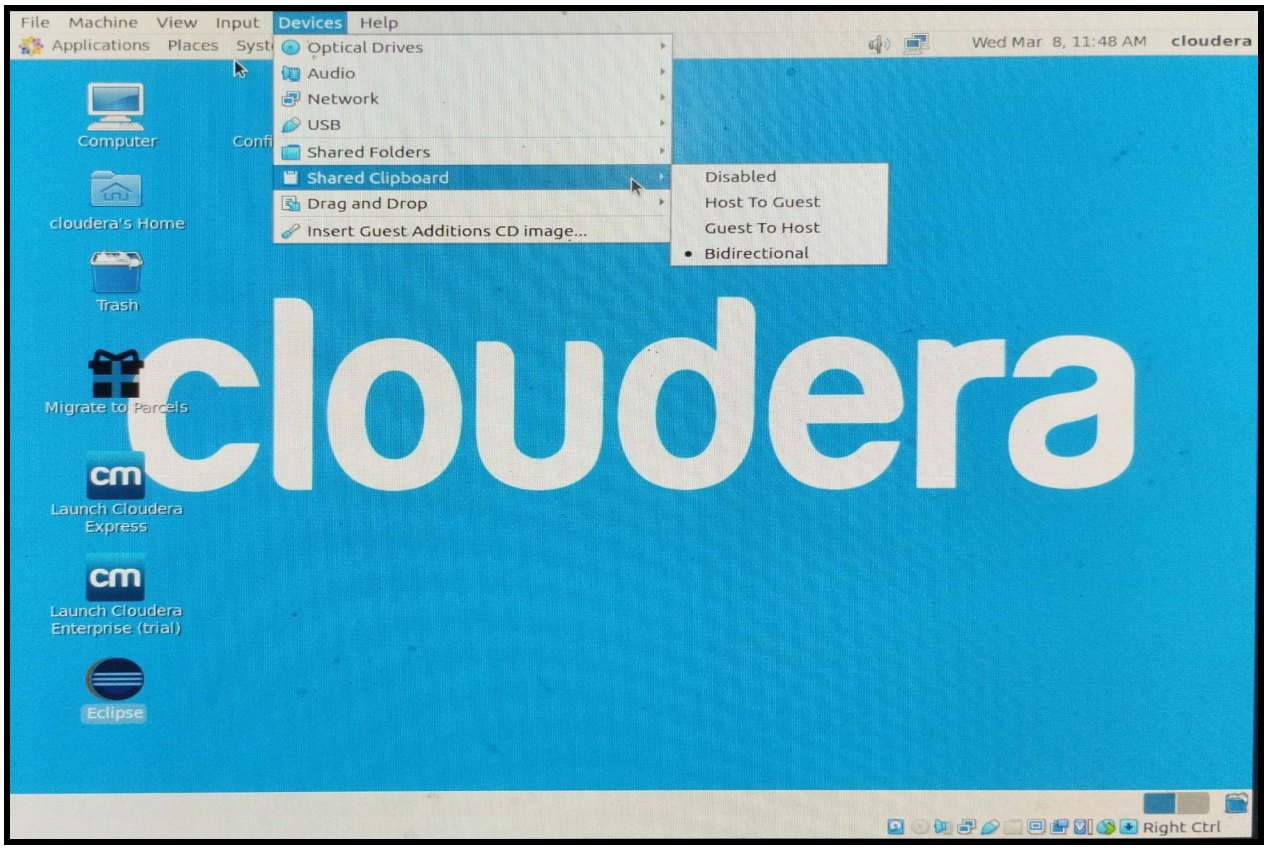

CSE488 - Hard Disk Selector
Medium
Add
Refresh
Name
Virtual Size
Actual Size
Not Attached
cloudera-quickstart-vm-5.13.0-0-virtualbox-disk1.vmdk
64.00 GB
5.54 GB
Search By Name
Cancel
Choose


Create Virtual Machine
Hard disk
If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.
If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.
The recommended size of the hard disk is 8.00 GB.
Do not add a virtual hard disk
Create a virtual hard disk now
Use an existing virtual hard disk file
cloudera-quickstart-vm-5.13.0-0-virtualbox-disk1.vmdk
< Back
Create
Cancel

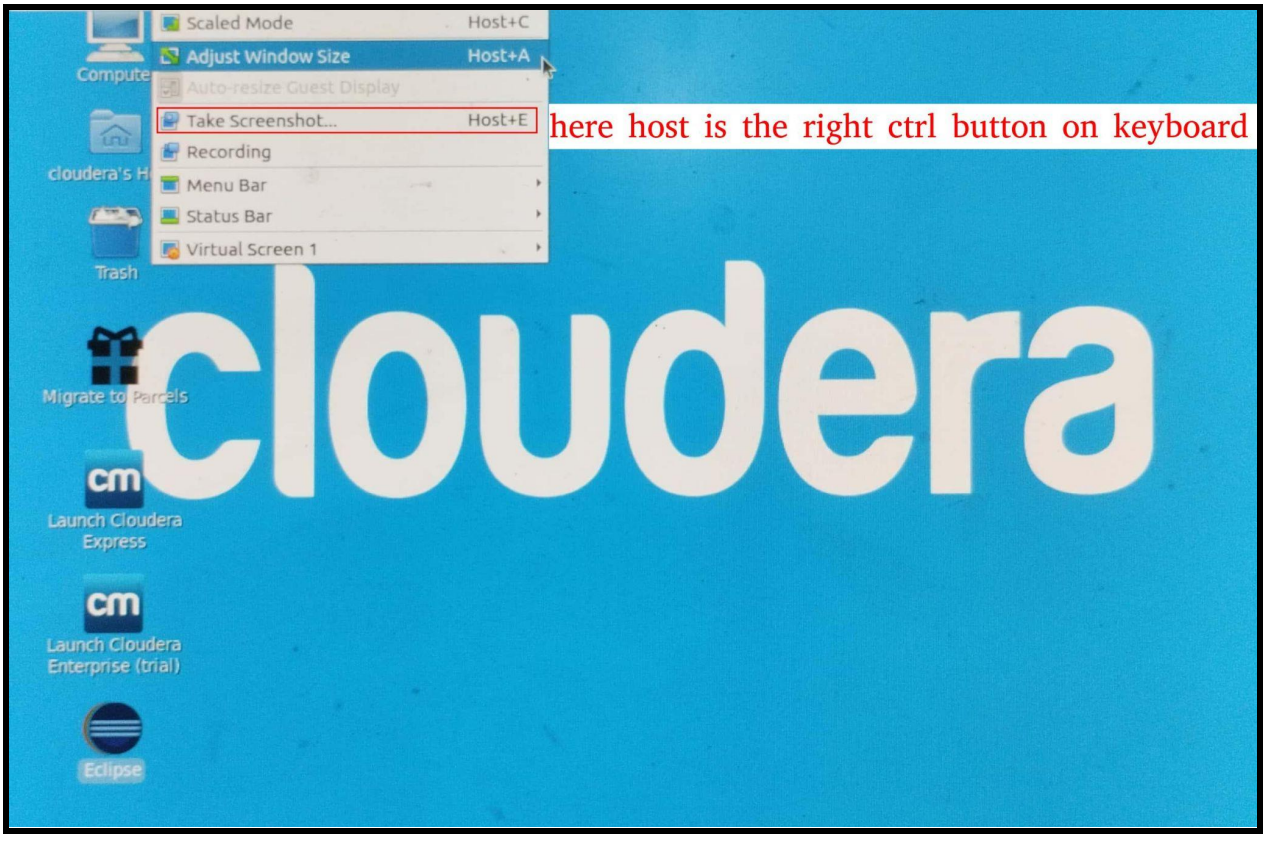

Oracle VM VirtualBox Manager
File
Machine
Snapshot
Help
Tools
CSE488
Running
Name
Taken
Current State


CSE488 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
You have the Auto capture keyboard option turned on. This will cause the Virtual Machine to automatically
The Virtual Machine reports that the guest OS does not support mouse pointer integration in the current
CentOS 6.7
Right Ctrl


Applications Places System
Wed Mar 8, 10:01 AM cloudera
Computer
Configure Kerberos
cloudera's Home
Trash
Migrate to Parcels
Launch Cloudera Express
Launch Cloudera Enterprise (trial)
Eclipse
cloudera



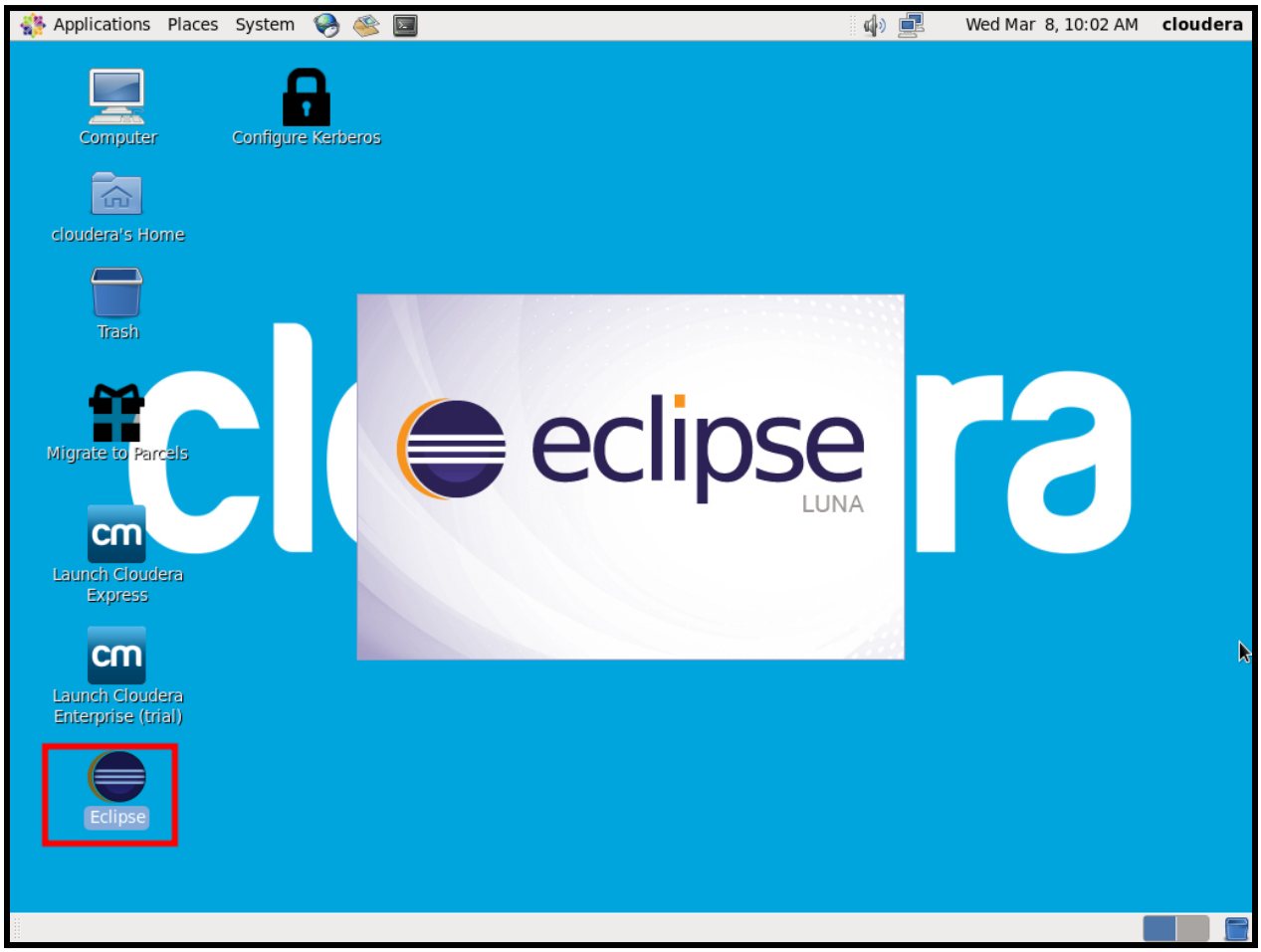
7. **If we select bidirectional in a shared clipboard then we can copy and paste guest OS to host Os vice versa. Also drag and drop is the same feature.**

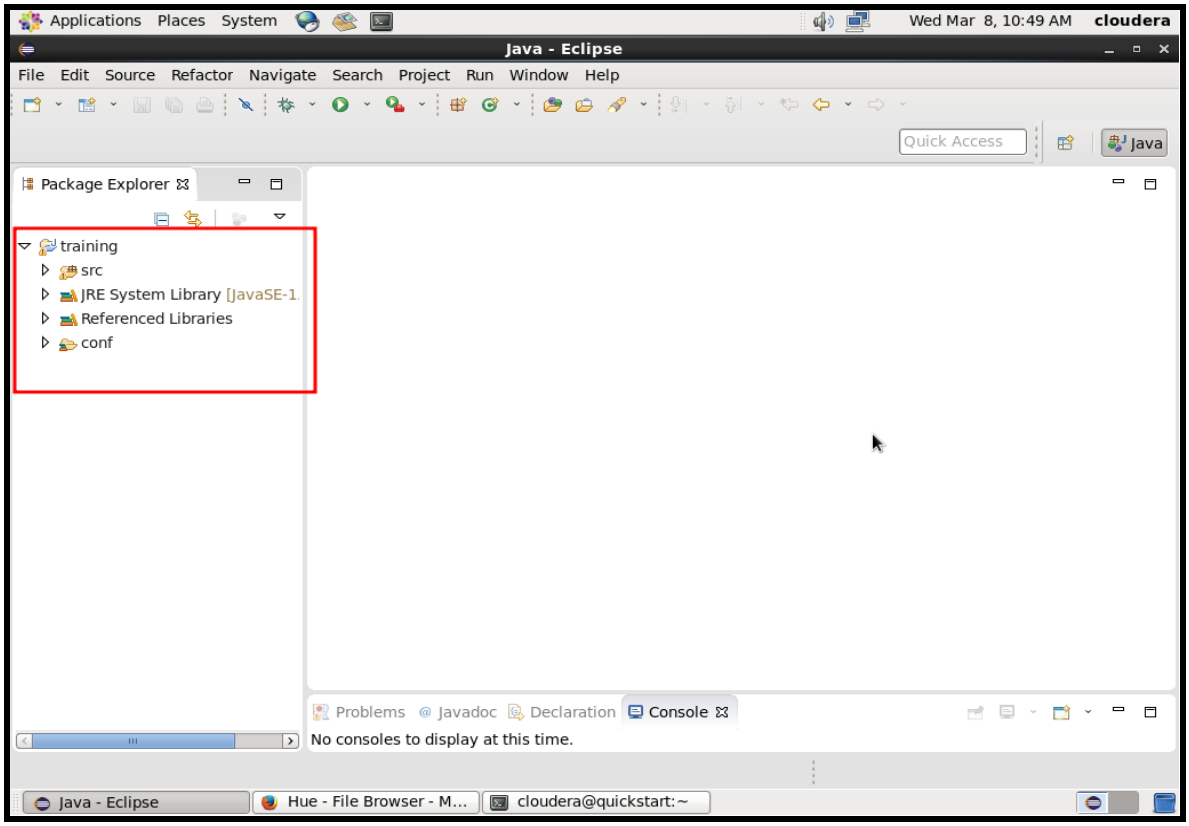


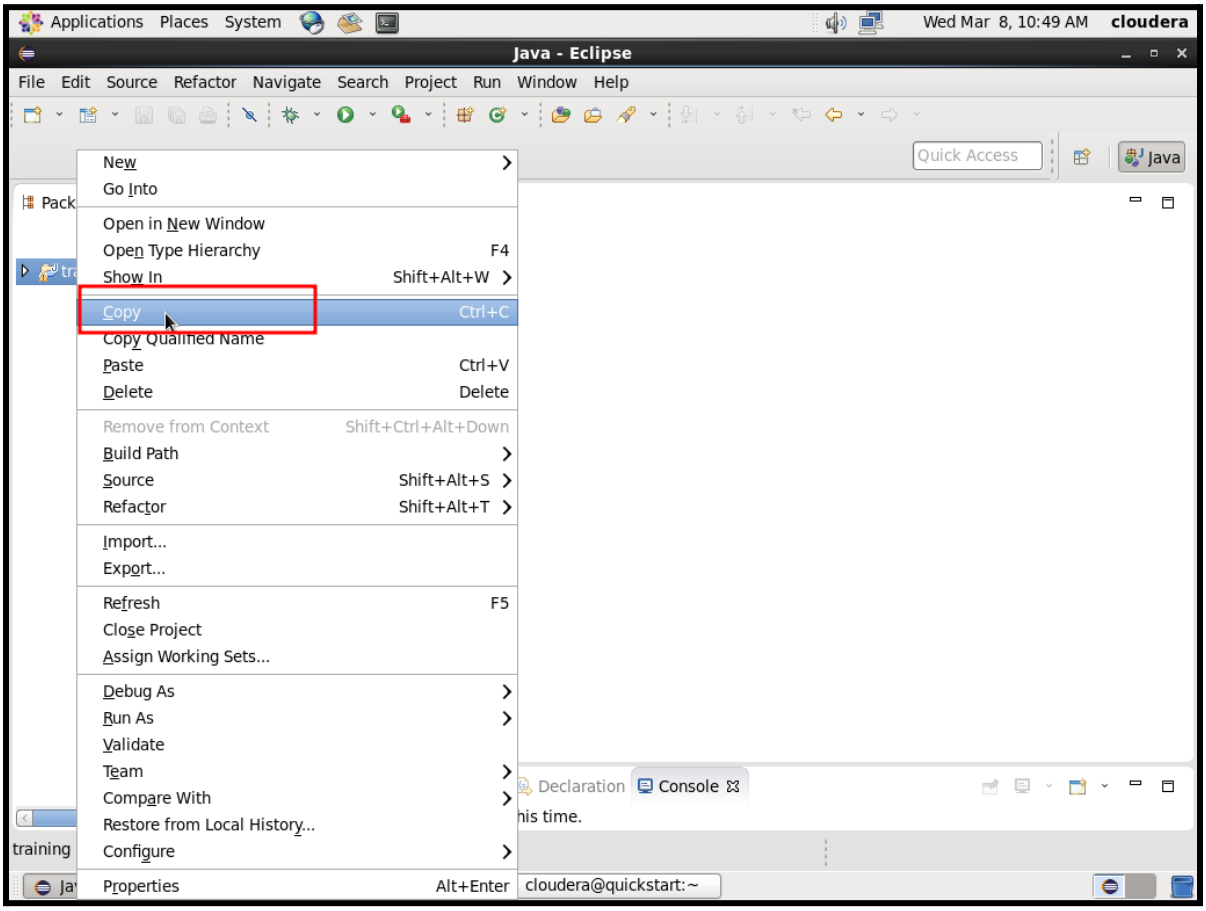
Step 2 :

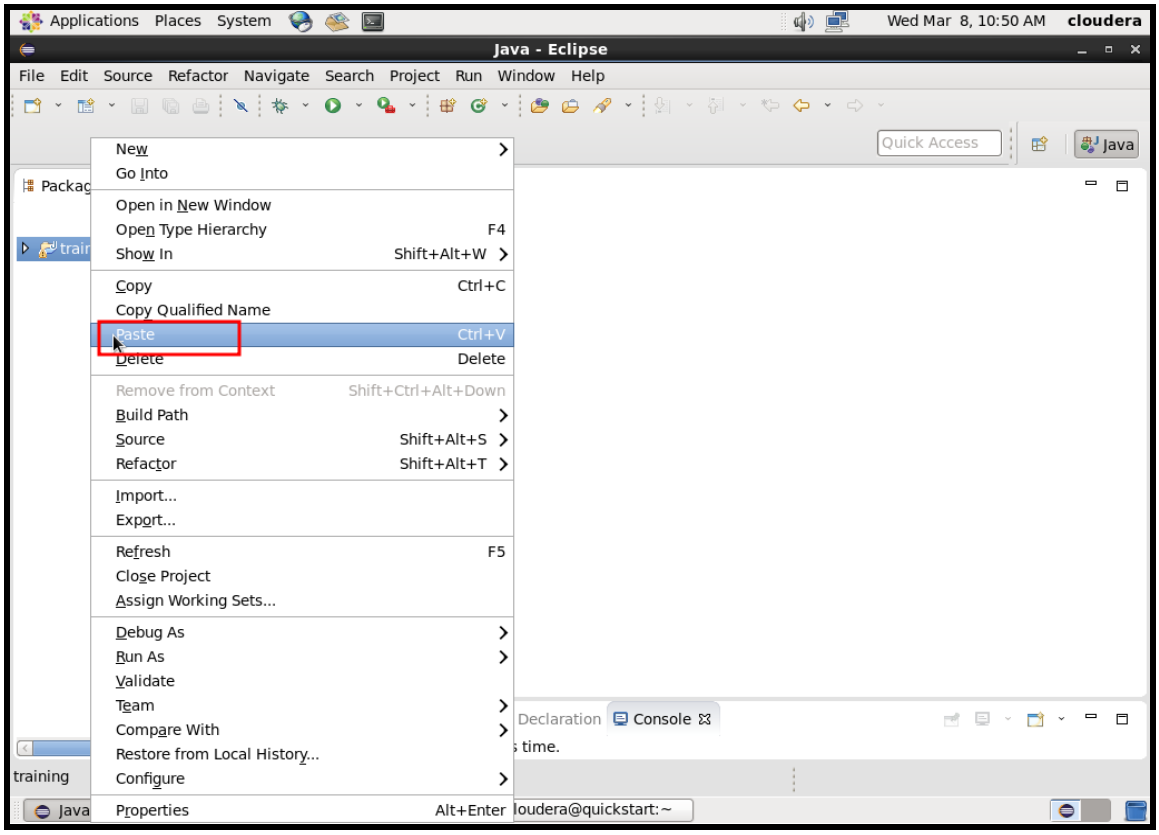
Hadoop Map-Reduce Program

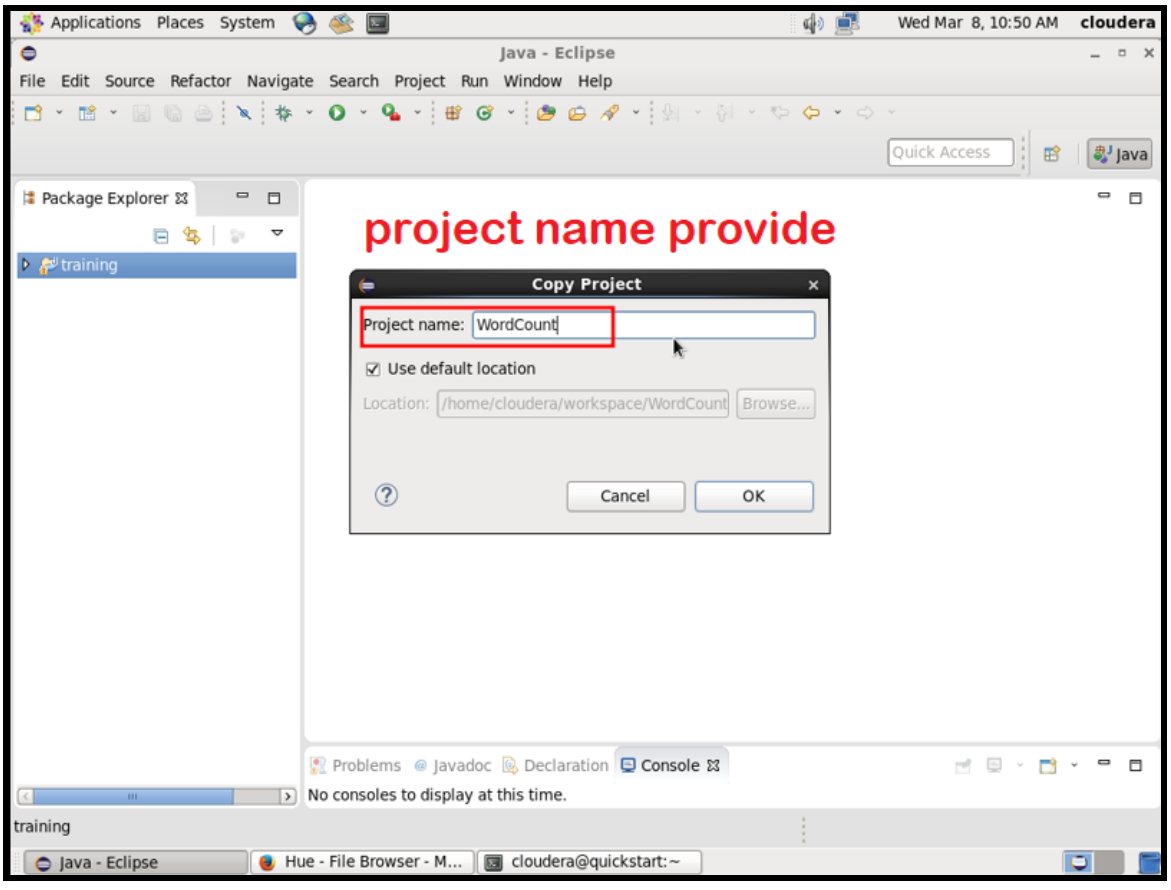
1. **Opening eclipse ide for written java code for our Hadoop Map-reduce program and follow the instructions which are provide into the images**

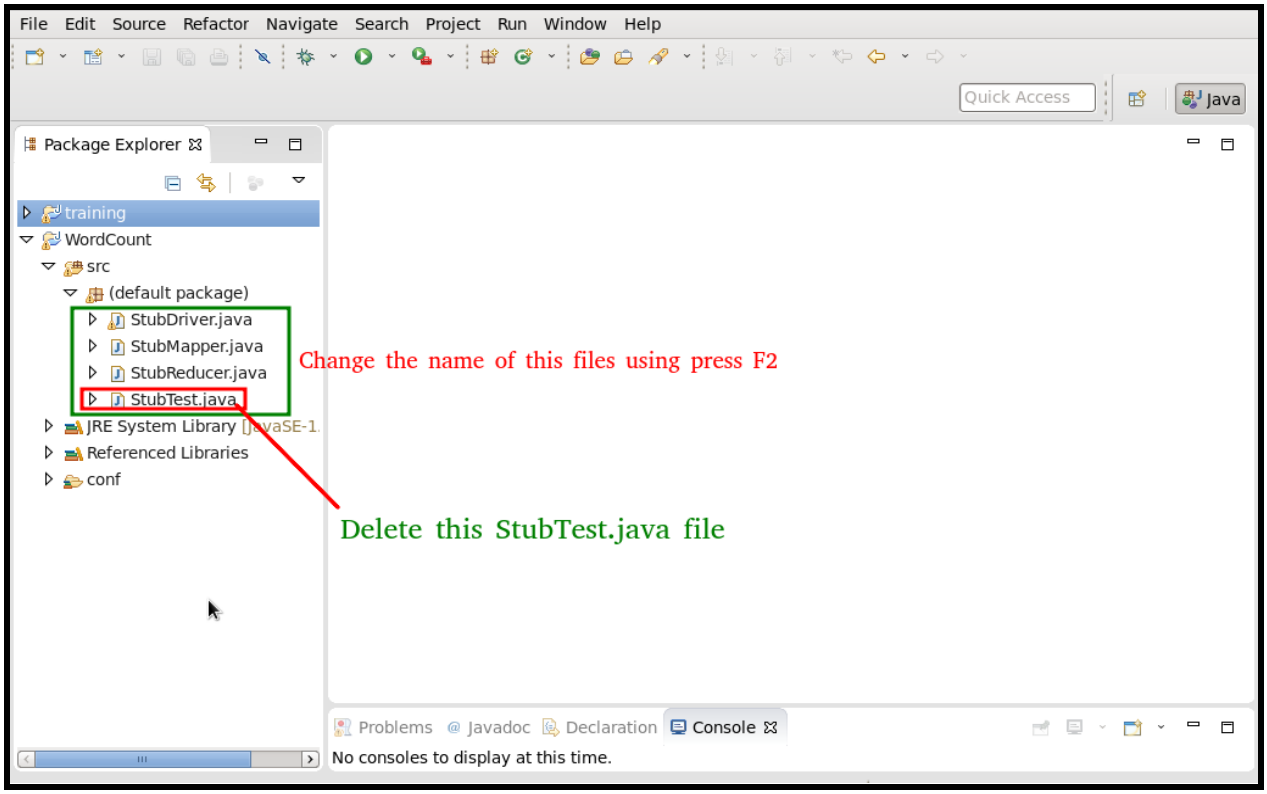


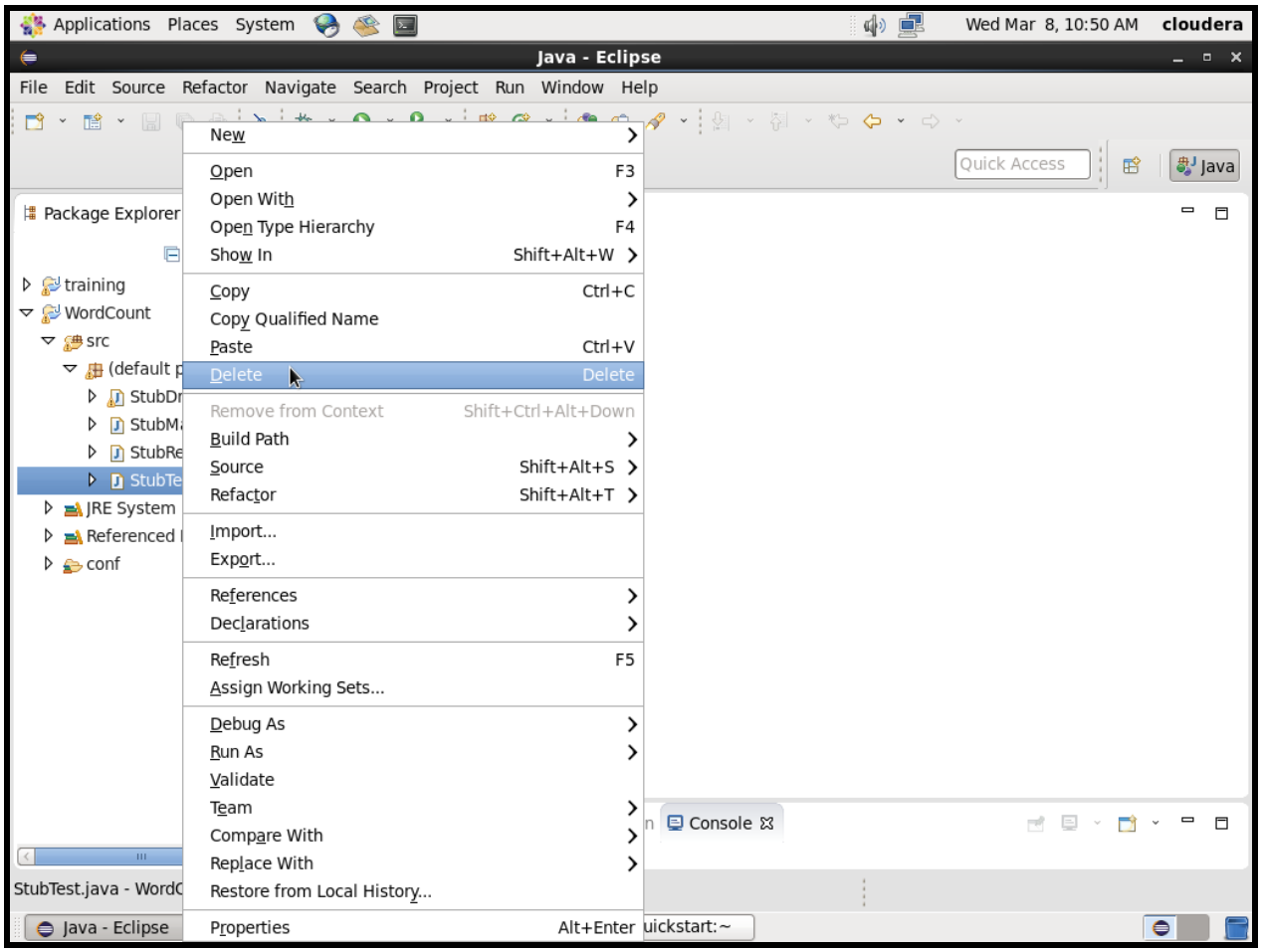

Applications Places System
Wed Mar 8, 10:49 AM cloudera
Java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
Package Explorer
training
src
JRE System Library [JavaSE-1.
Referenced Libraries
conf
Problems Javadoc Declaration Console
No consoles to display at this time.
Java - Eclipse
Hue - File Browser - M...
cloudera@quickstart:~

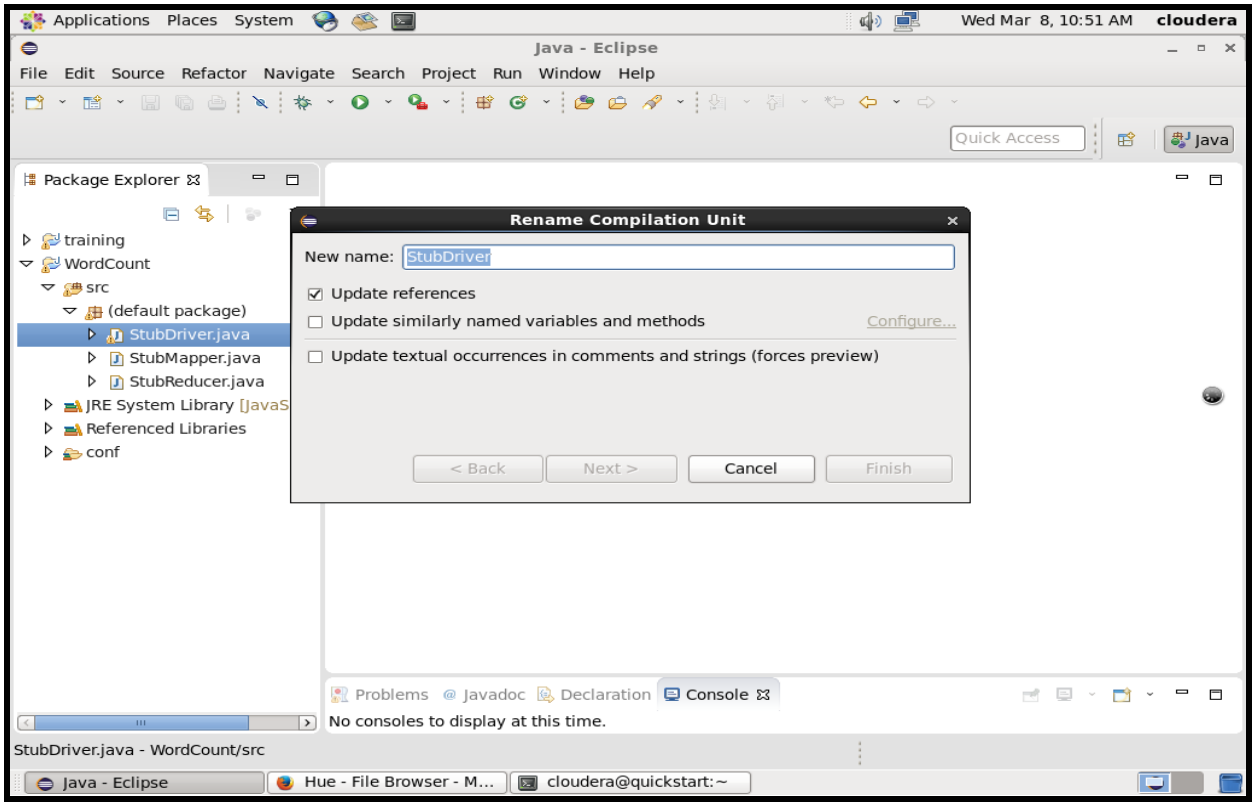

Applications Places System
Wed Mar 8, 10:49 AM cloudera
Java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
New
Go Into
Open in New Window
Open Type Hierarchy F4
Show In Shift+Alt+W
Copy Ctrl+C
Copy Qualified Name
Paste Ctrl+V
Delete Delete
Remove from Context Shift+Ctrl+Alt+Down
Build Path
Source Shift+Alt+S
Refactor Shift+Alt+T
Import...
Export...
Refresh F5
Close Project
Assign Working Sets...
Debug As
Run As
Validate
Team
Compare With
Restore from Local History...
Configure
Properties Alt+Enter
Declaration Console
training
cloudera@quickstart:~


Applications Places System
Wed Mar 8, 10:50 AM cloudera
Java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
New
Go Into
Open in New Window
Open Type Hierarchy F4
Show In Shift+Alt+W
Copy Ctrl+C
Copy Qualified Name
Paste Ctrl+V
Delete Delete
Remove from Context Shift+Ctrl+Alt+Down
Build Path
Source Shift+Alt+S
Refactor Shift+Alt+T
Import...
Export...
Refresh F5
Close Project
Assign Working Sets...
Debug As
Run As
Validate
Team
Compare With
Restore from Local History...
Configure
Properties Alt+Enter
Declaration Console
time.
training
Java
cloudera@quickstart:~

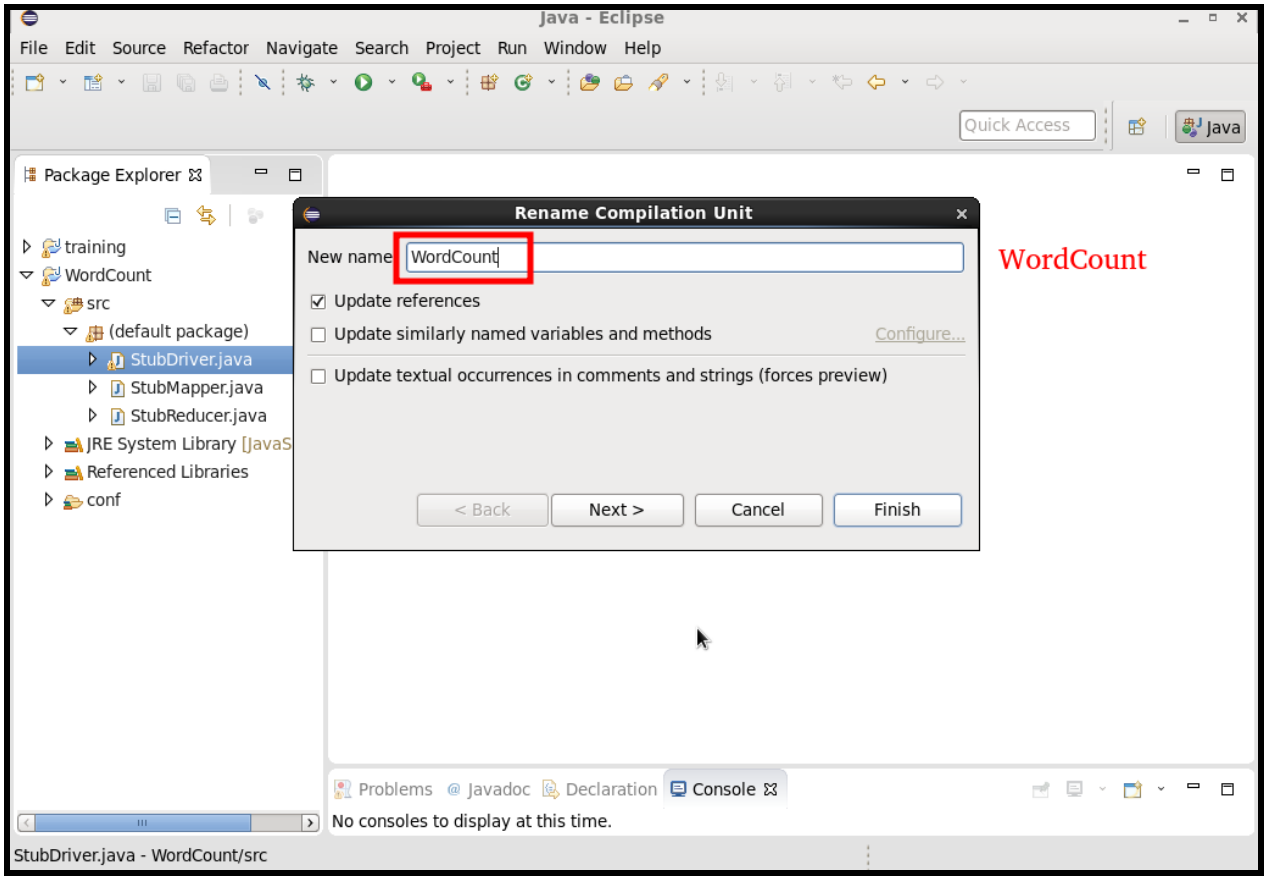

Applications Places System
Wed Mar 8, 10:50 AM cloudera
Java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
Package Explorer
training
project name provide
Copy Project
Project name: WordCount
Use default location
Location: /home/cloudera/workspace/WordCount
Browse...
Cancel
OK
Problems Javadoc Declaration Console
No consoles to display at this time.
training
Java - Eclipse
Hue - File Browser - M...
cloudera@quickstart:~

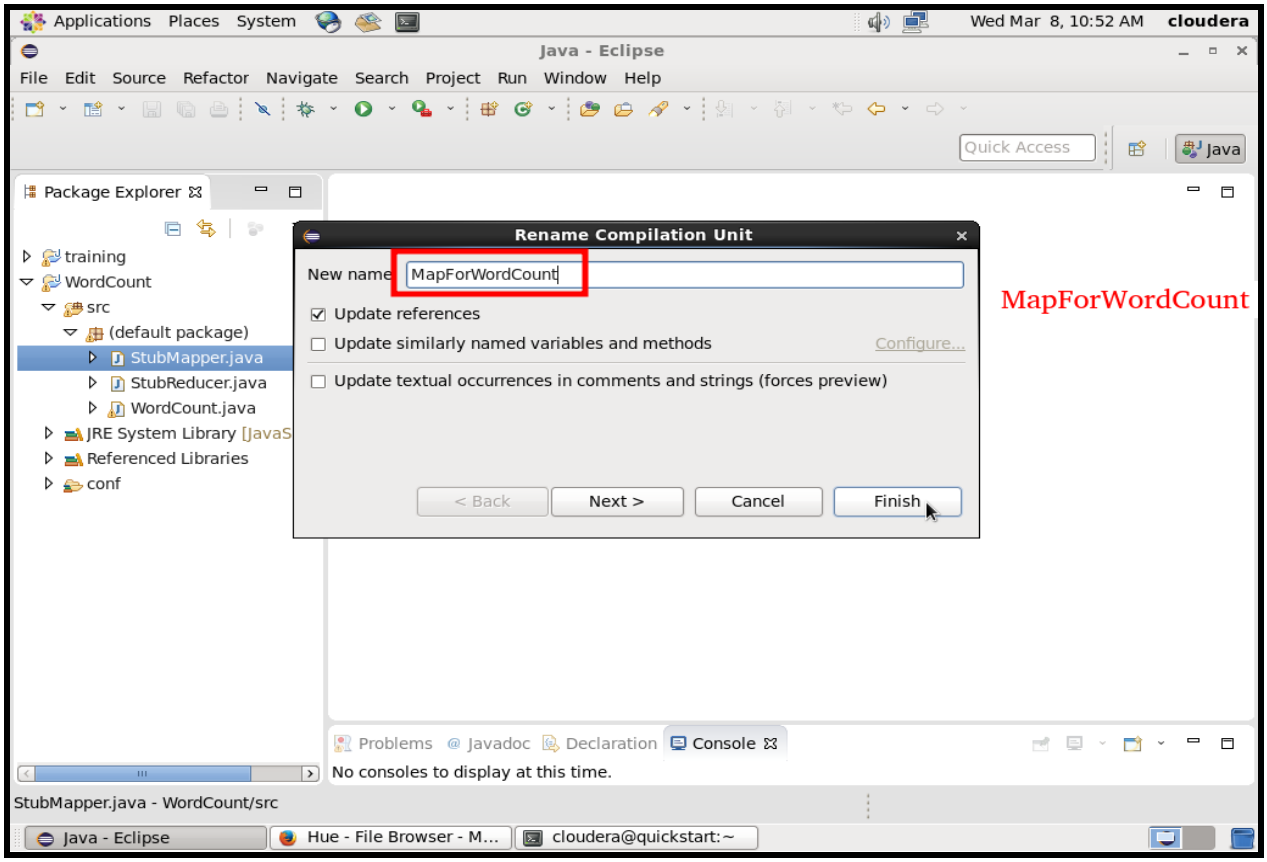

File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
Package Explorer
training
WordCount
src
(default package)
StubDriver.java
StubMapper.java
StubReducer.java
StubTest.java
JRE System Library
Referenced Libraries
conf
Change the name of this files using press F2
Delete this StubTest.java file
Problems
Javadoc
Declaration
Console
No consoles to display at this time.

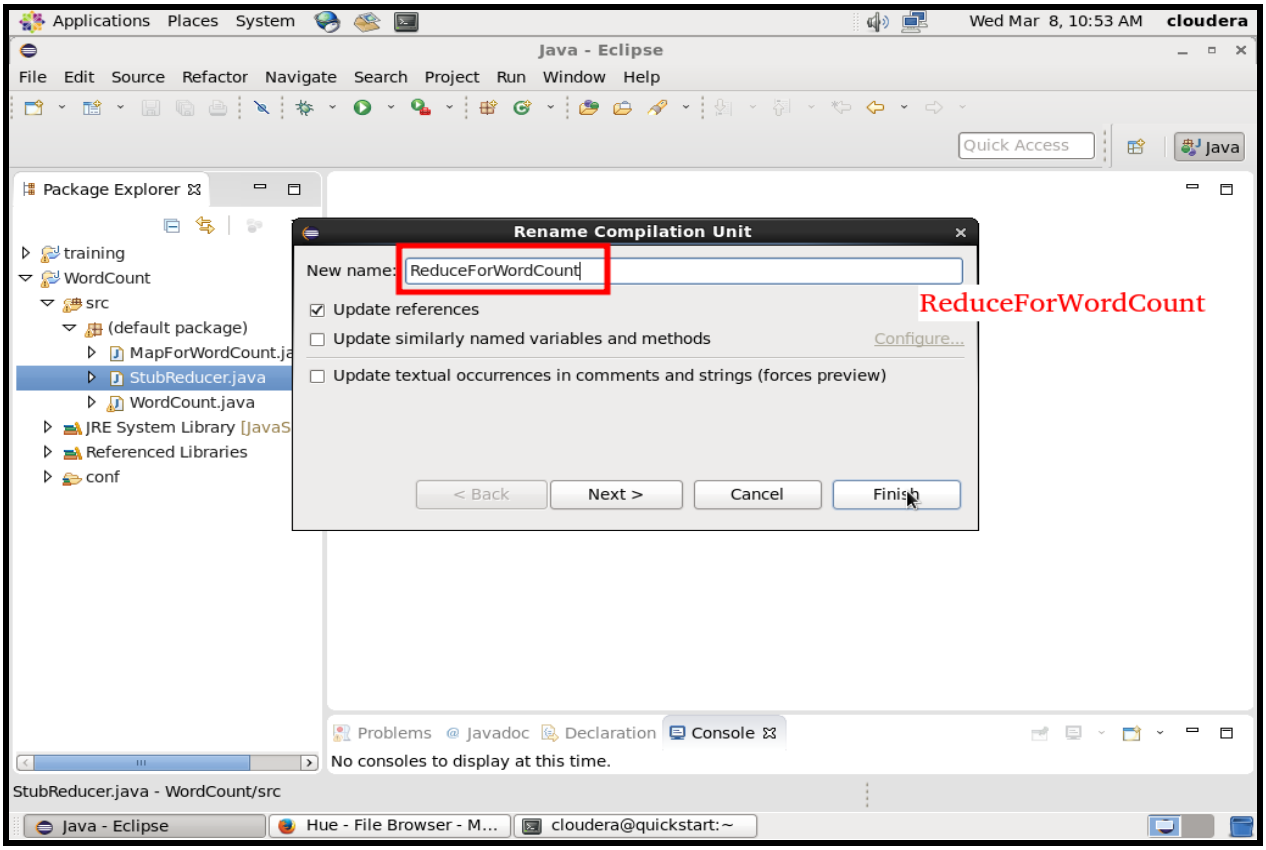

Applications Places System
Wed Mar 8, 10:50 AM cloudera
Java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
Package Explorer
training
WordCount
src
JRE System
Referenced
conf
New
Open F3
Open With
Open Type Hierarchy F4
Show In Shift+Alt+W
Copy Ctrl+C
Copy Qualified Name
Paste Ctrl+V
Delete Delete
Remove from Context Shift+Ctrl+Alt+Down
Build Path
Source Shift+Alt+S
Refactor Shift+Alt+T
Import...
Export...
References
Declarations
Refresh F5
Assign Working Sets...
Debug As
Run As
Validate
Team
Compare With
Replace With
Restore from Local History...
Properties Alt+Enter
Console
StubTest.java - WordC
Java - Eclipse
uickstart:~



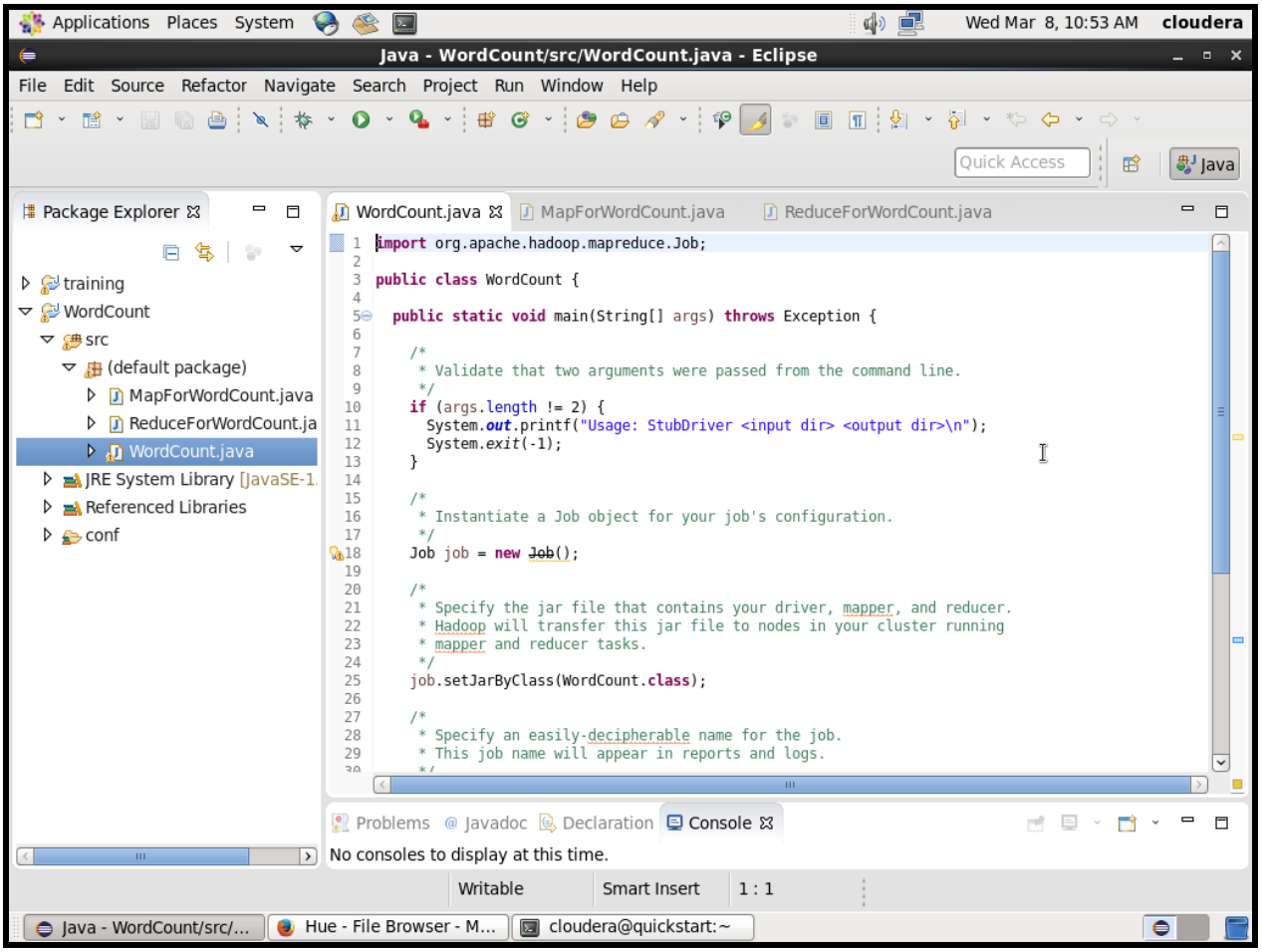
2. Rename The Files



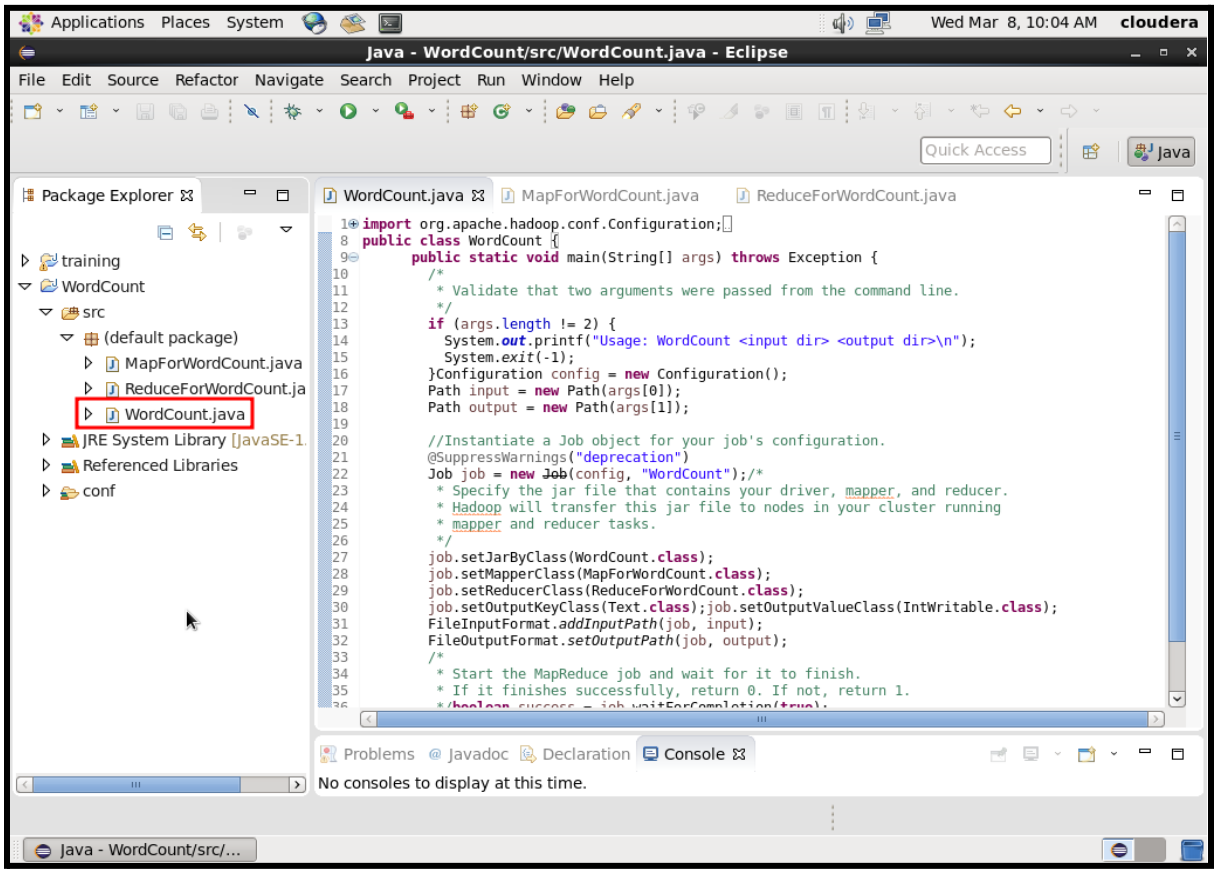

Applications Places System
Wed Mar 8, 10:52 AM cloudera
Java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
Package Explorer
training
WordCount
src
(default package)
StubMapper.java
StubReducer.java
WordCount.java
JRE System Library [JavaS
Referenced Libraries
conf
Rename Compilation Unit
New name: MapForWordCount
Update references
Update similarly named variables and methods
Configure...
Update textual occurrences in comments and strings (forces preview)
< Back
Next >
Cancel
Finish
MapForWordCount
Problems Javadoc Declaration Console
No consoles to display at this time.
StubMapper.java - WordCount/src
Java - Eclipse
Hue - File Browser - M...
cloudera@quickstart:~


Applications Places System
Wed Mar 8, 10:53 AM cloudera
Java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
Java
Package Explorer
training
WordCount
src
(default package)
MapForWordCount.ja
StubReducer.java
WordCount.java
JRE System Library [JavaS
Referenced Libraries
conf
Rename Compilation Unit
New name: ReduceForWordCount
Update references
Update similarly named variables and methods
Configure...
Update textual occurrences in comments and strings (forces preview)
< Back
Next >
Cancel
Finish
ReduceForWordCount
Problems Javadoc Declaration Console
No consoles to display at this time.
StubReducer.java - WordCount/src
Java - Eclipse
Hue - File Browser - M...
cloudera@quickstart:~

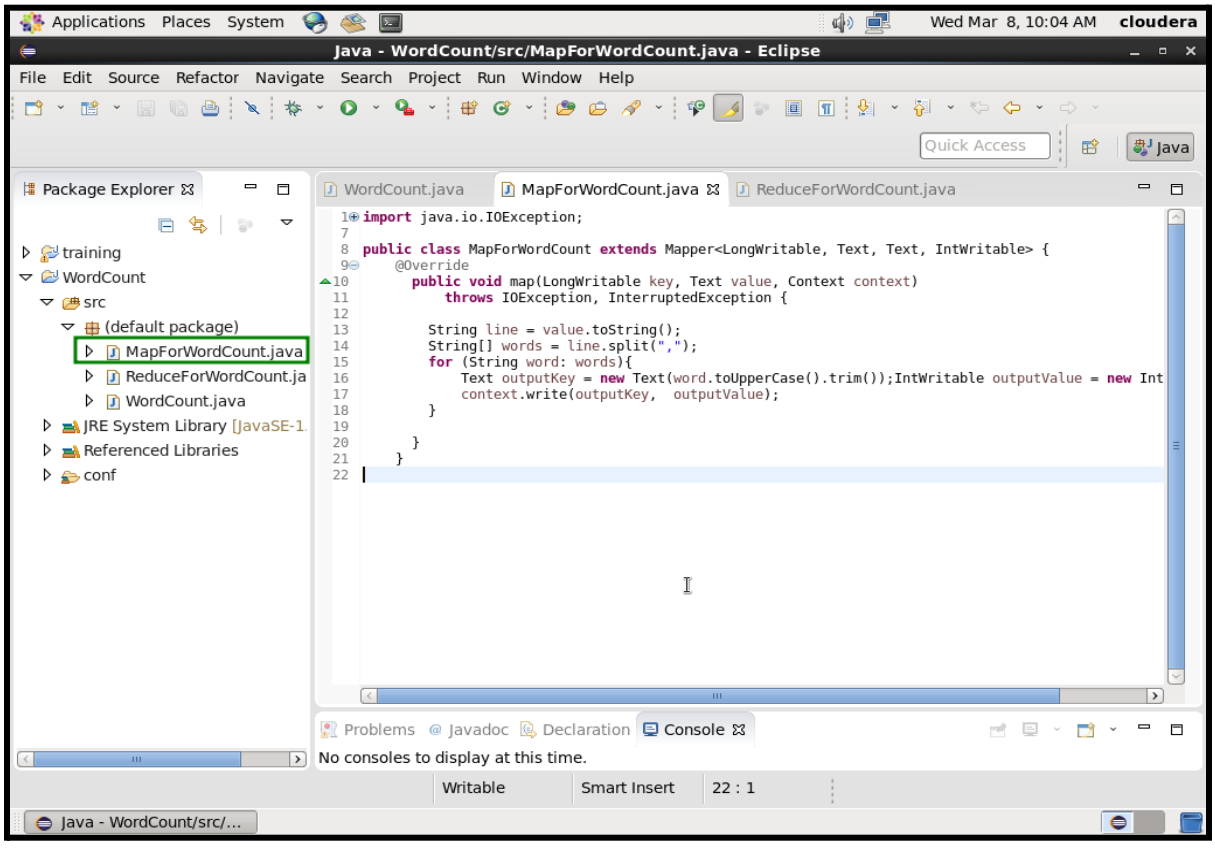
3. The StubDriver.java, StubMapper.java and StubReducer.java files must be renamed WordCount.java, MapForWordCount.java and ReduceForWordCount.java respectively and the required codes must be written or copy



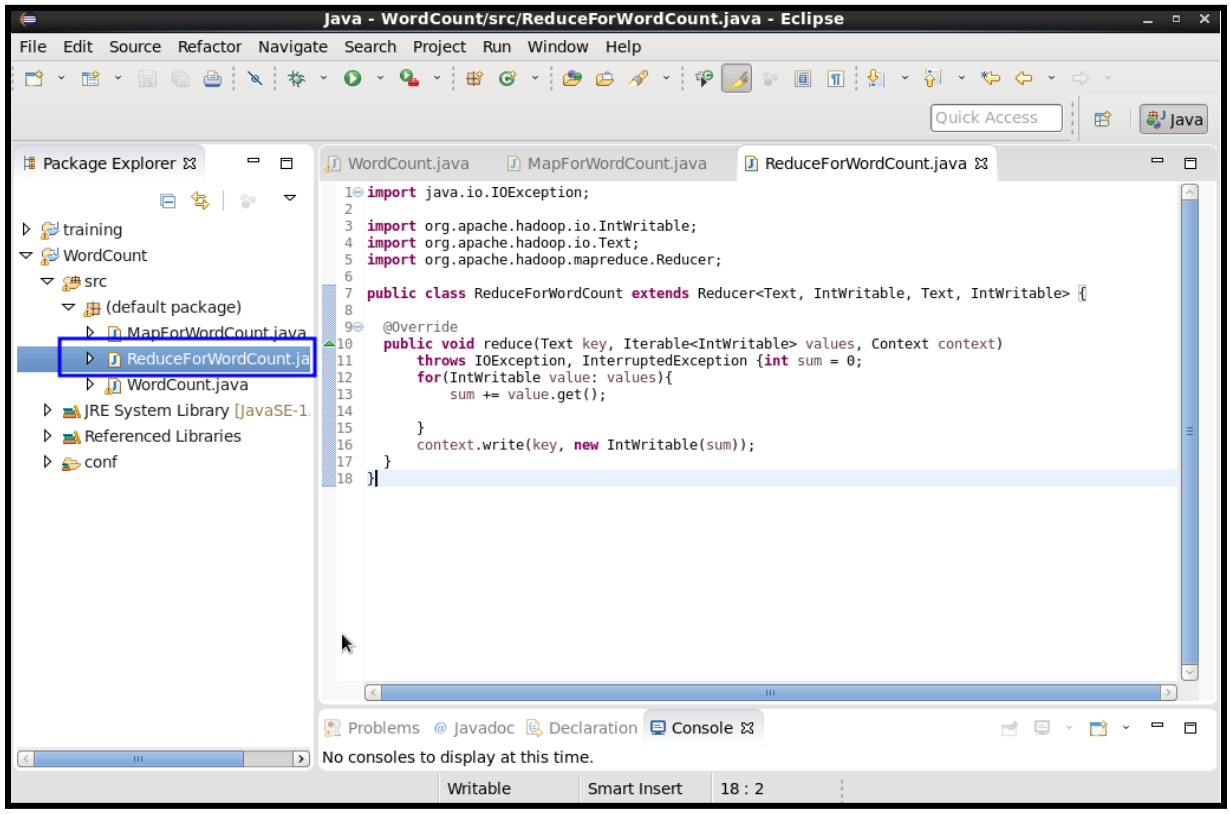
WordCount.java



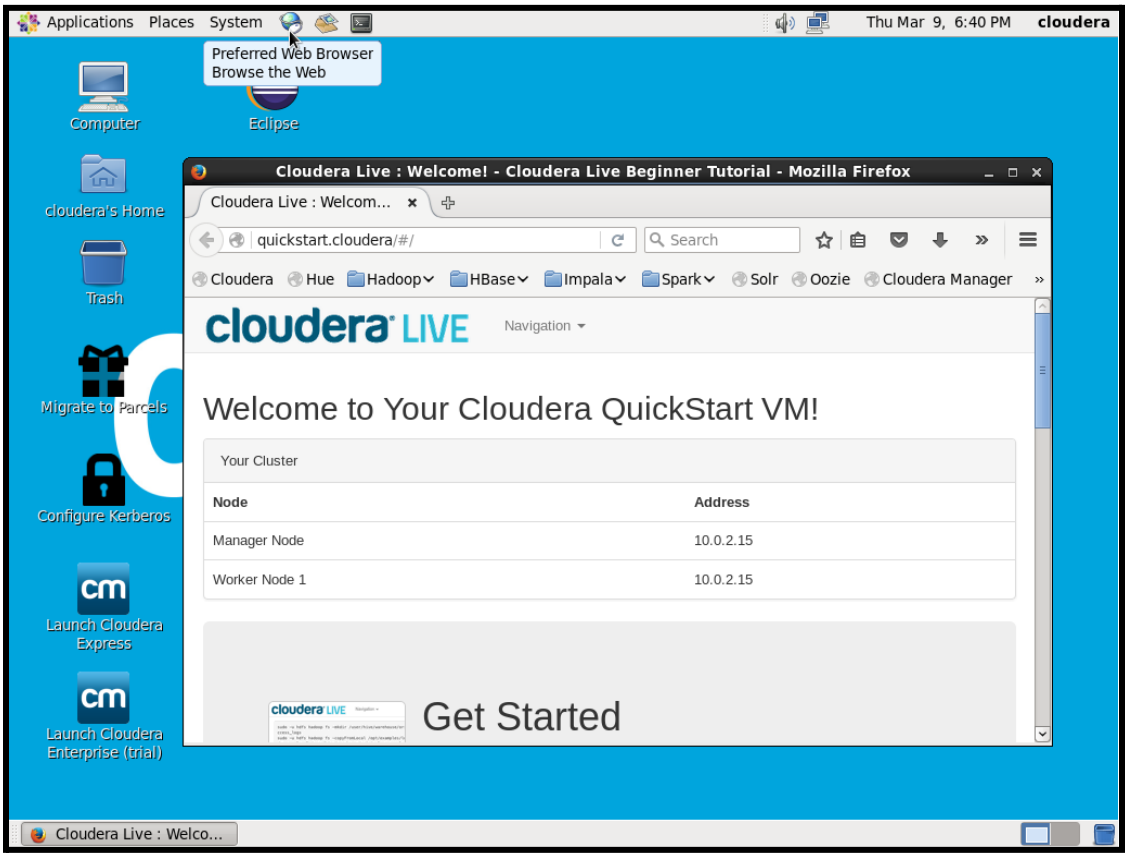
MapForWordCount.java

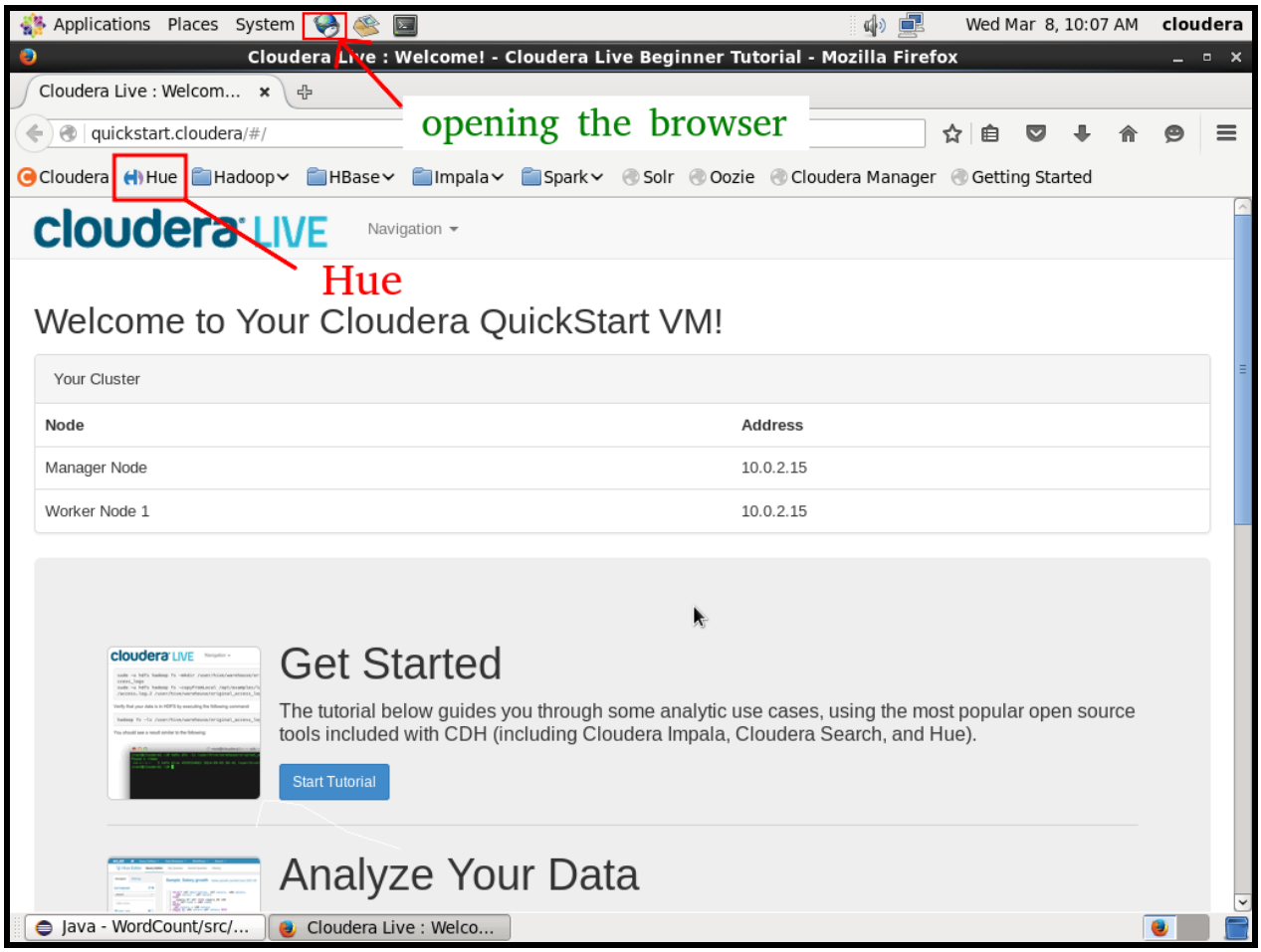


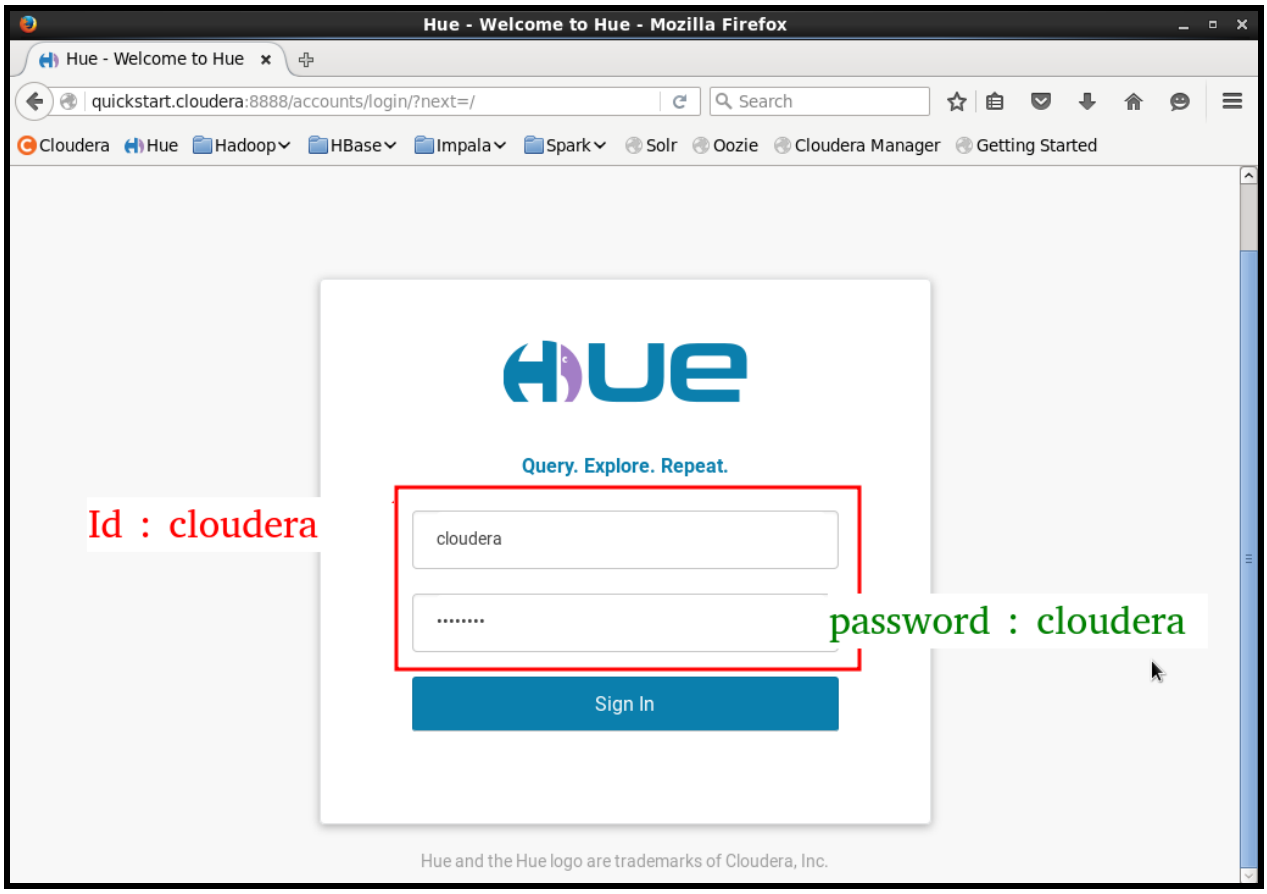
ReduceForWordCount.java

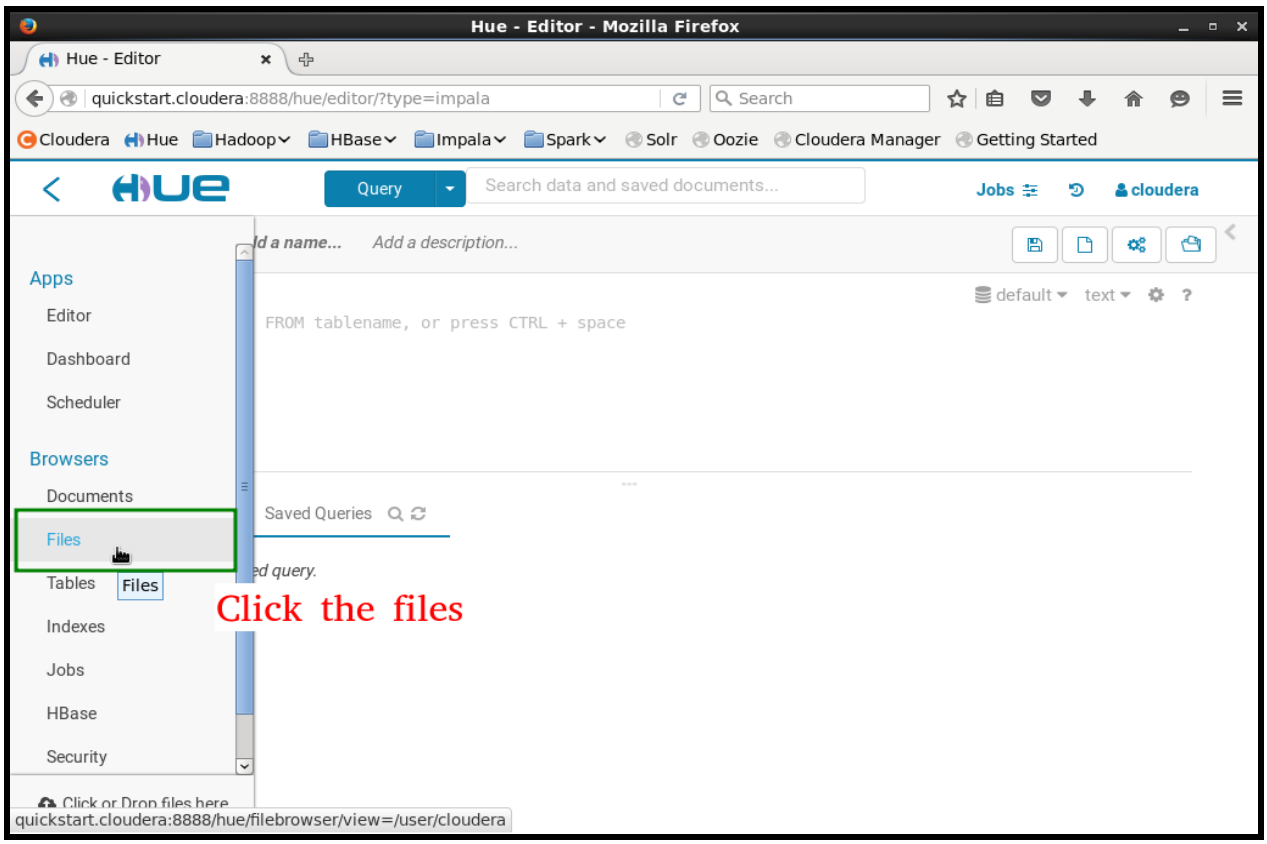


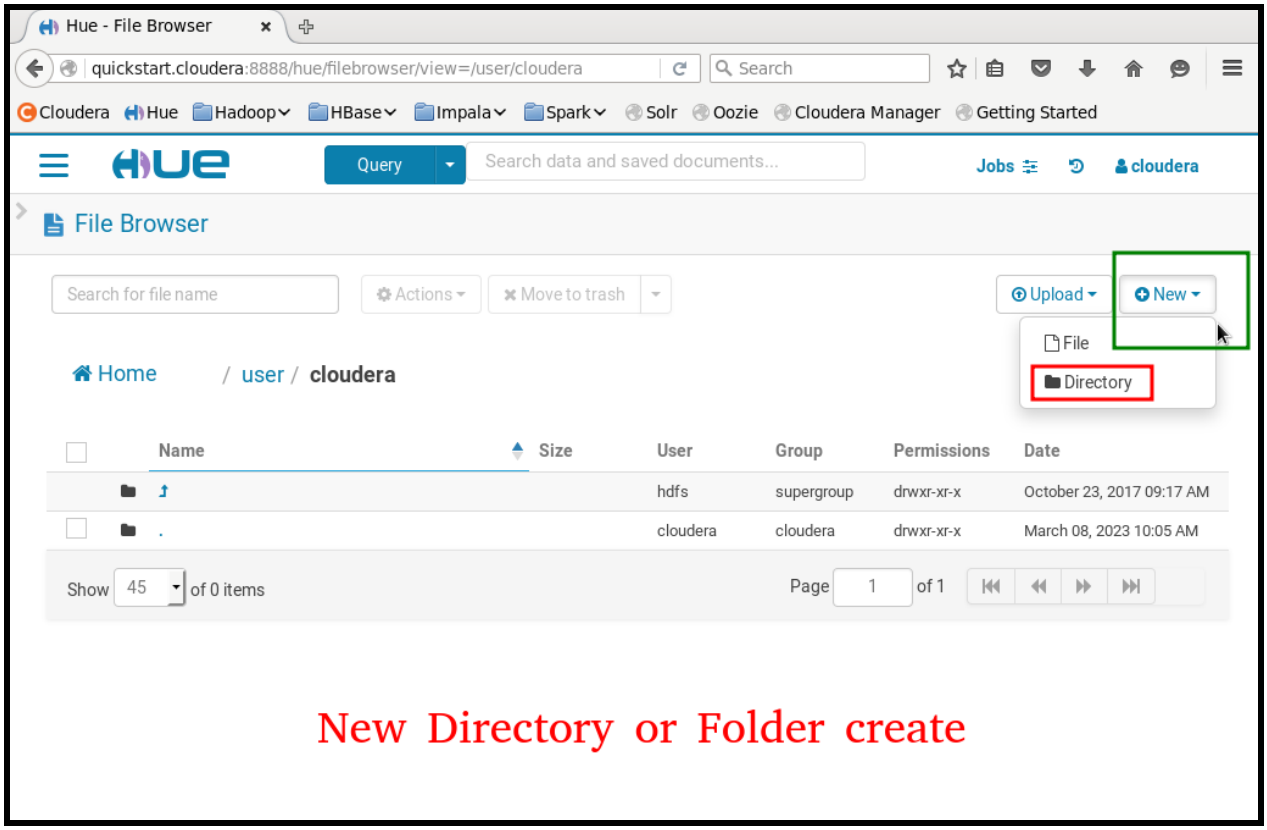
4. Getting to the Cloudera distributed systems and do the necessary steps



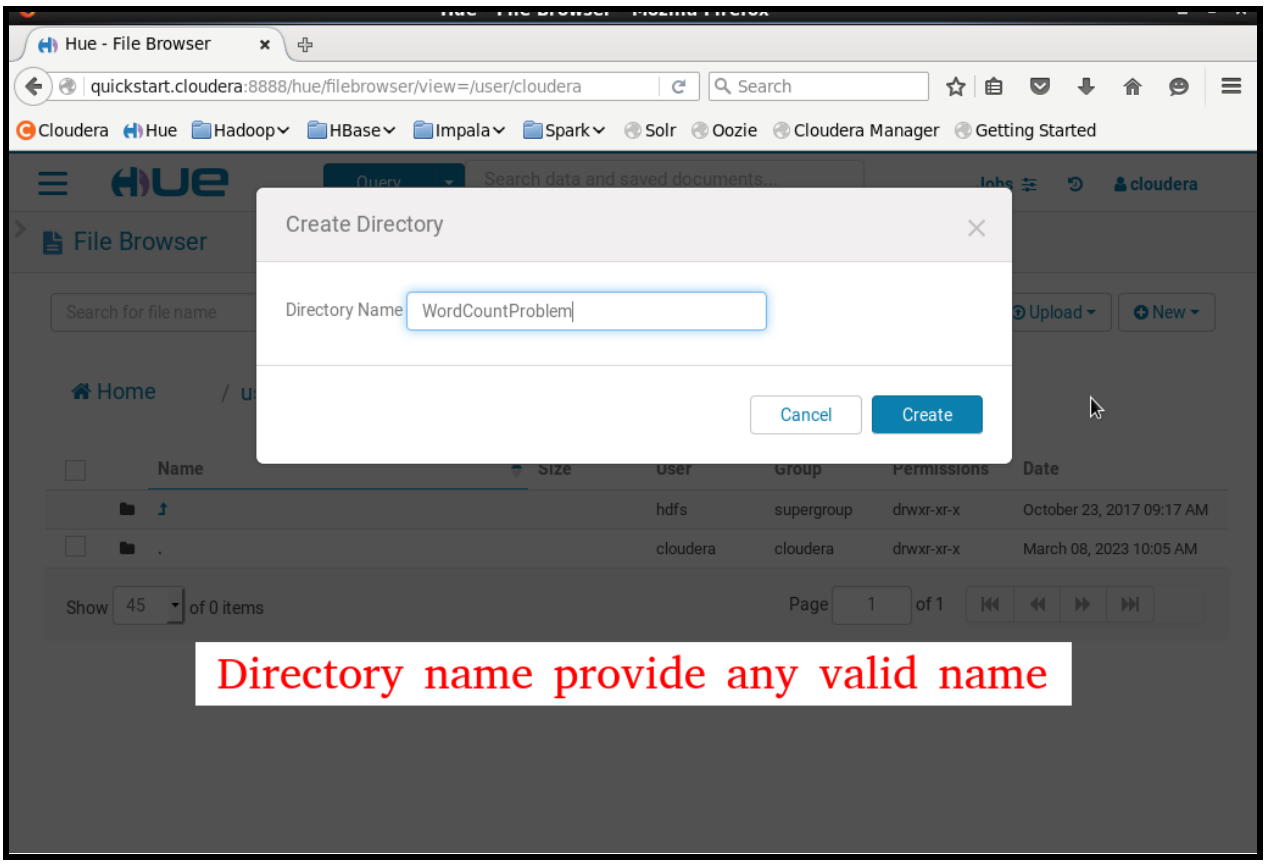

Applications Places System
Wed Mar 8, 10:07 AM cloudera
Cloudera Live : Welcome! - Cloudera Live Beginner Tutorial - Mozilla Firefox
Cloudera Live : Welcom...
quickstart.cloudera/#/
opening the browser
Cloudera Hue Hadoop HBase Impala Spark Solr Oozie Cloudera Manager Getting Started
cloudera LIVE
Navigation
Hue
Welcome to Your Cloudera QuickStart VM!
Your Cluster
Node
Address
Manager Node
10.0.2.15
Worker Node 1
10.0.2.15
Get Started
The tutorial below guides you through some analytic use cases, using the most popular open source tools included with CDH (including Cloudera Impala, Cloudera Search, and Hue).
Start Tutorial
Analyze Your Data
Java - WordCount/src/...
Cloudera Live : Welco...


Hue - Welcome to Hue - Mozilla Firefox
Hue - Welcome to Hue
quickstart.cloudera:8888/accounts/login/?next=/
Search
Cloudera
Hue
Hadoop
HBase
Impala
Spark
Solr
Oozie
Cloudera Manager
Getting Started
Query. Explore. Repeat.
Id : cloudera
cloudera
password : cloudera
Sign In
Hue and the Hue logo are trademarks of Cloudera, Inc.

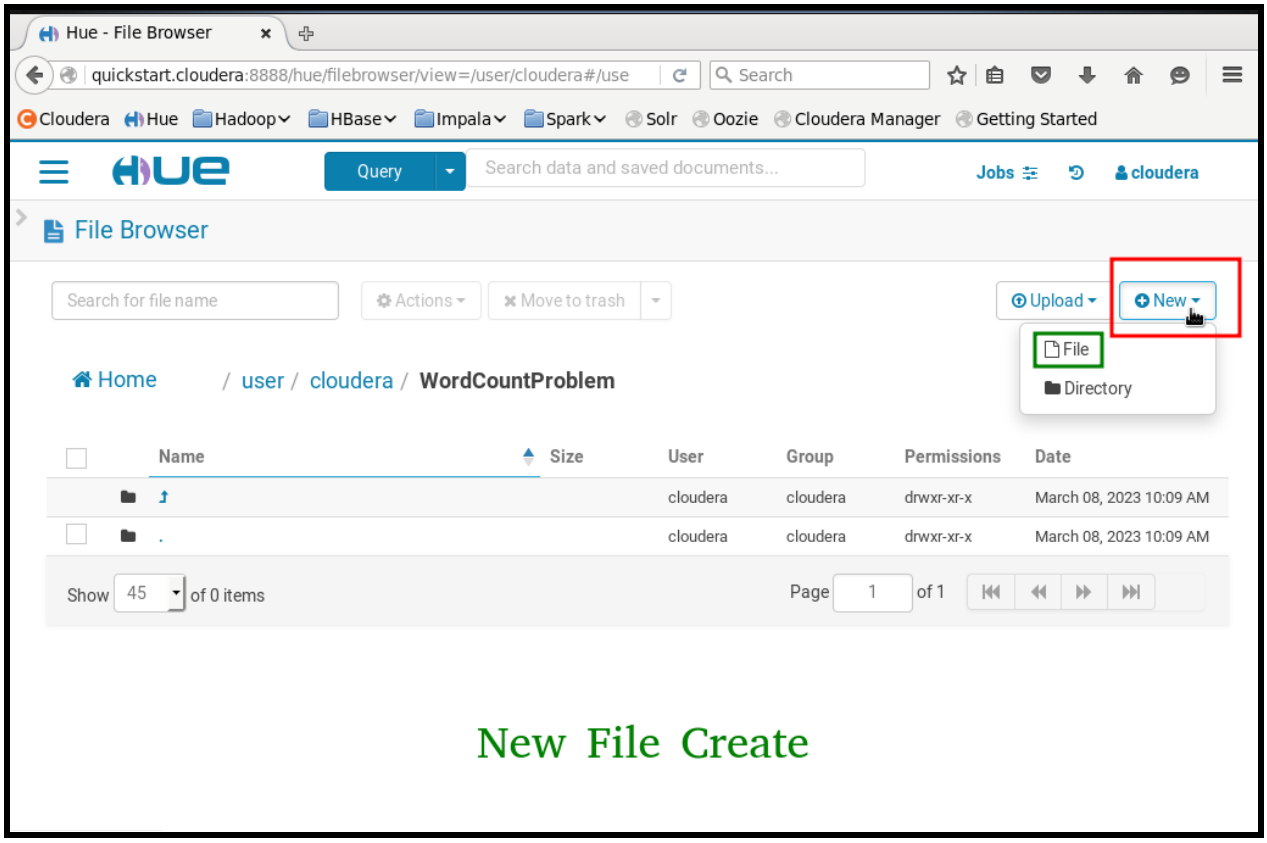

Hue - Editor - Mozilla Firefox
Hue - Editor
quickstart.cloudera:8888/hue/editor/?type=impala
Search
Cloudera
Hue
Hadoop
HBase
Impala
Spark
Solr
Oozie
Cloudera Manager
Getting Started
Query
Search data and saved documents...
Jobs
cloudera
Add a description...
Apps
Editor
Dashboard
Scheduler
Browsers
Documents
Files
Tables
Files
Indexes
Jobs
HBase
Security
default
text
FROM tablename, or press CTRL + space
Saved Queries
Click the files
Click or Drop files here
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera

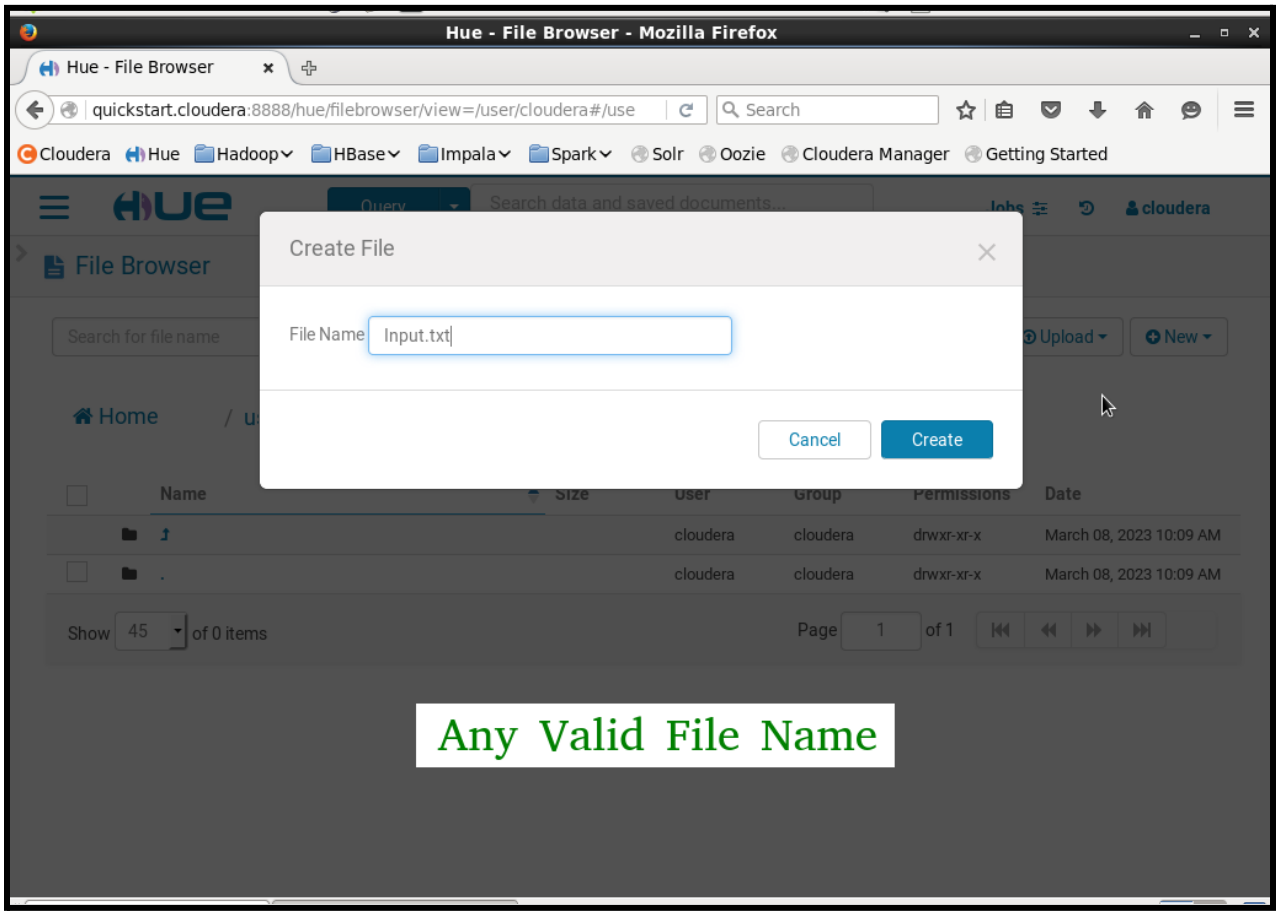


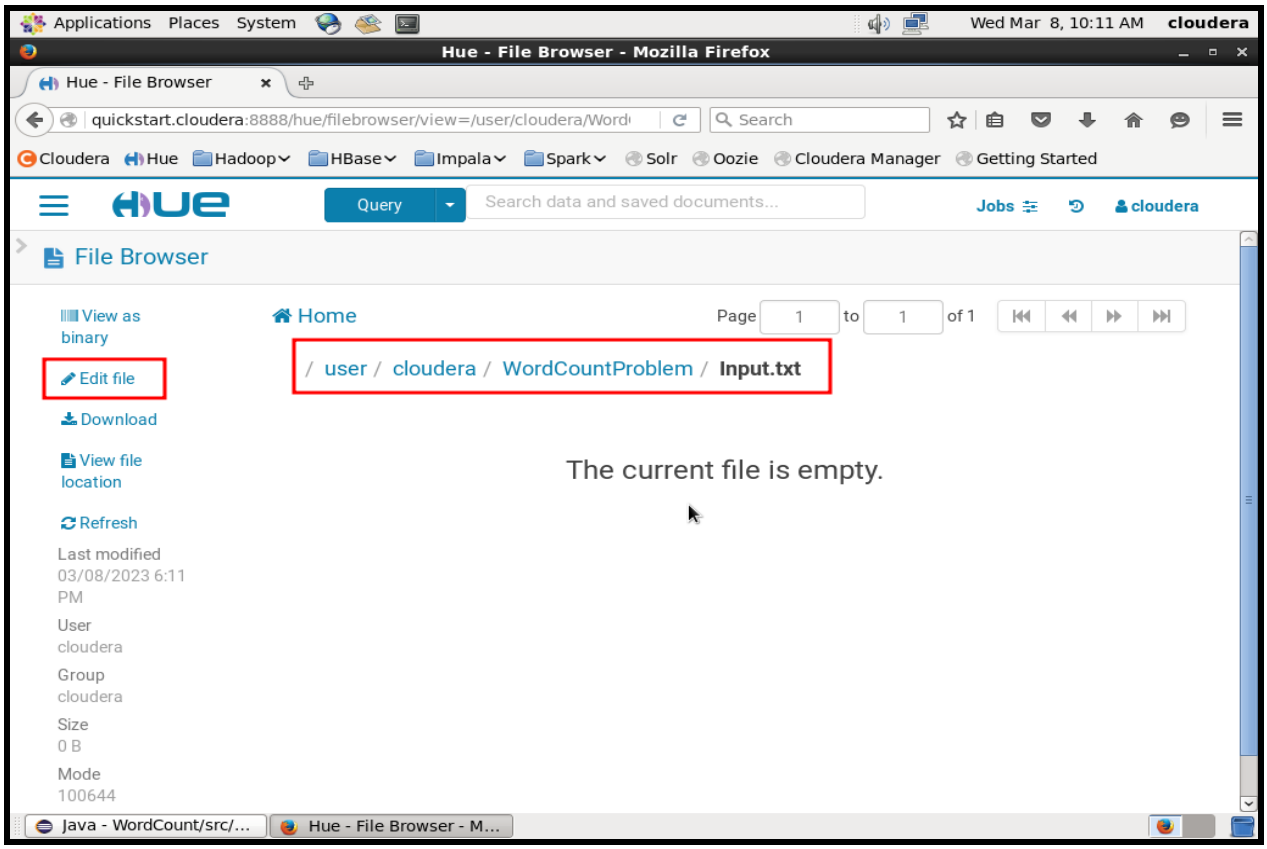
New Directory or Folder create

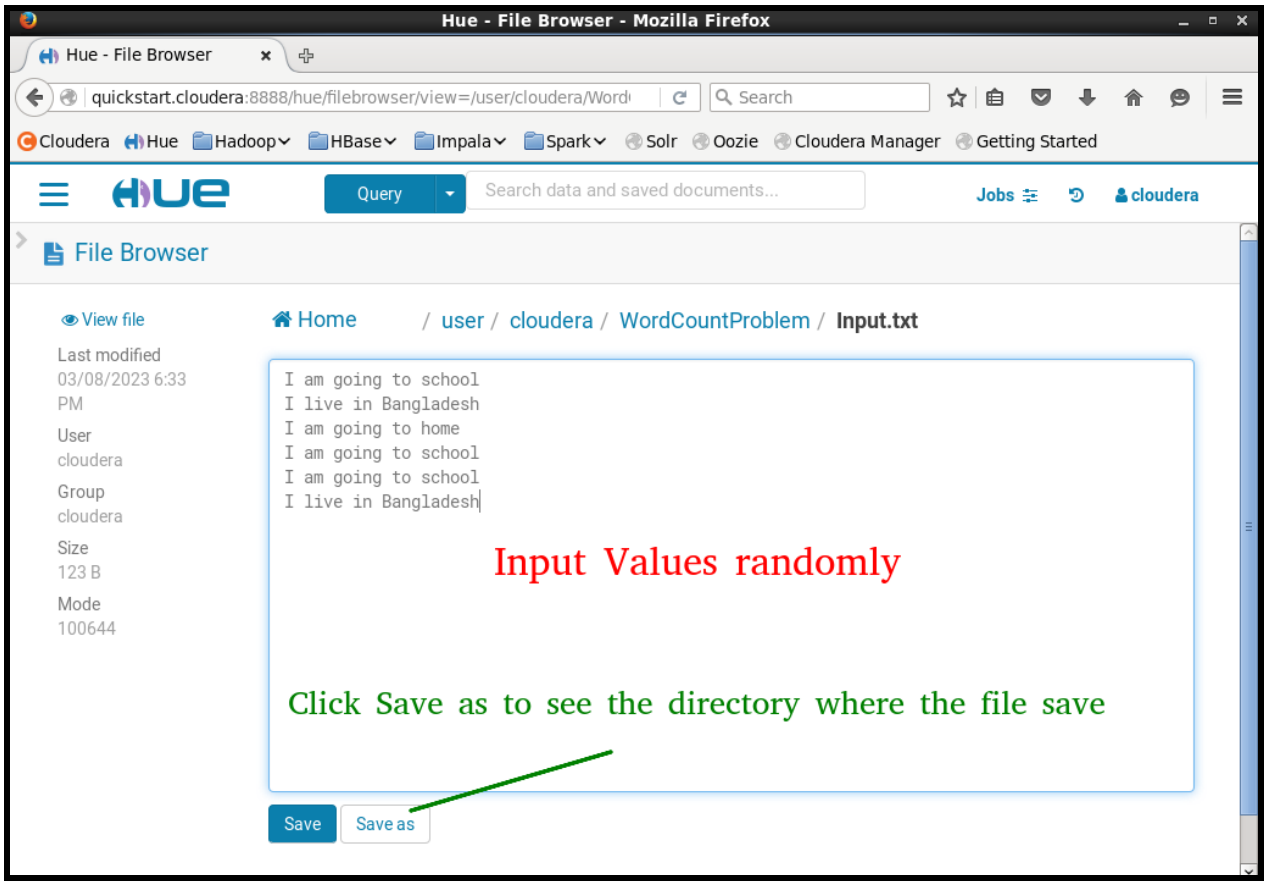


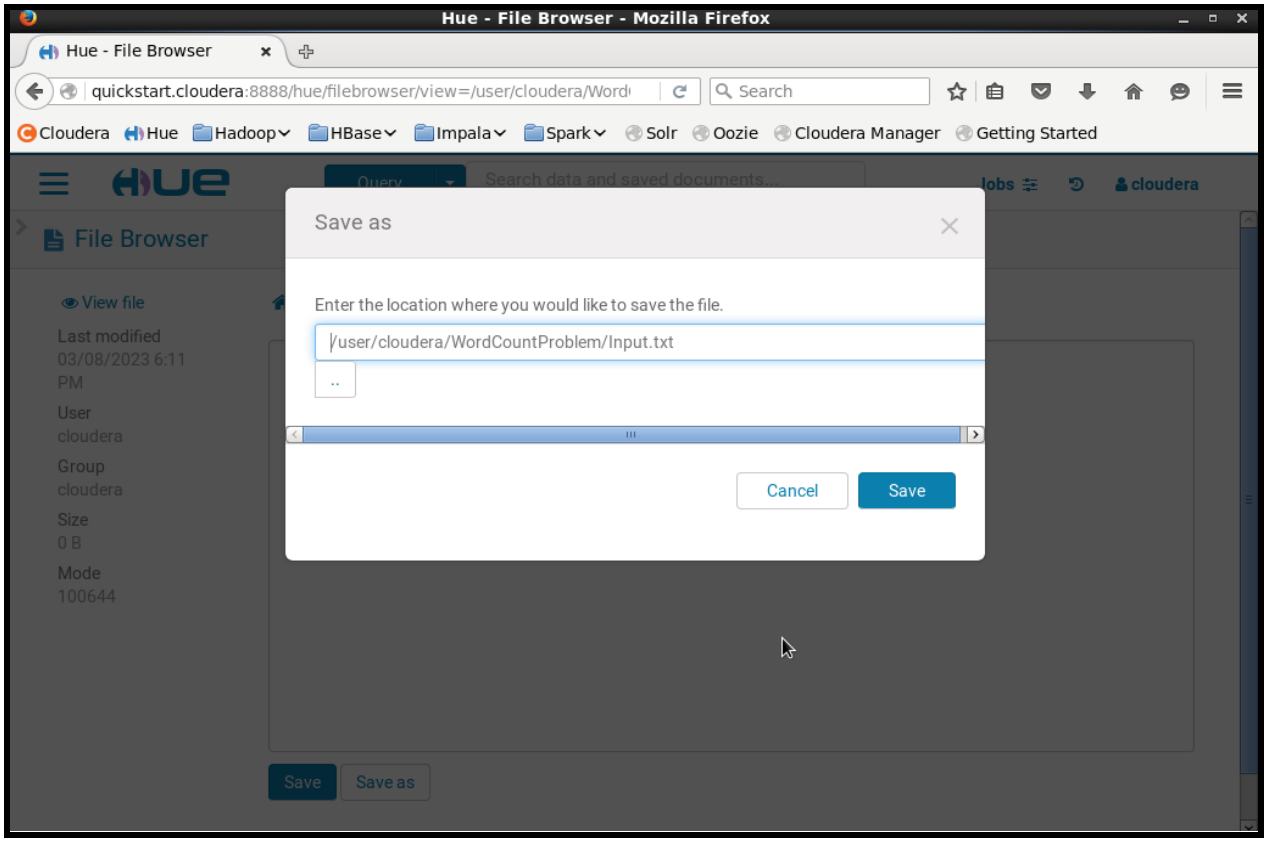
Directory name provide any valid name


Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera#/use
Search
Cloudera
Hue
Hadoop
HBase
Impala
Spark
Solr
Oozie
Cloudera Manager
Getting Started
Query
Search data and saved documents...
Jobs
cloudera
File Browser
Search for file name
Actions
Move to trash
Upload
New
File
Directory
Home / user / cloudera / WordCountProblem
Name
Size
User
Group
Permissions
Date
cloudera
cloudera
drwxr-xr-x
March 08, 2023 10:09 AM
Show 45 of 0 items
Page 1 of 1
New File Create

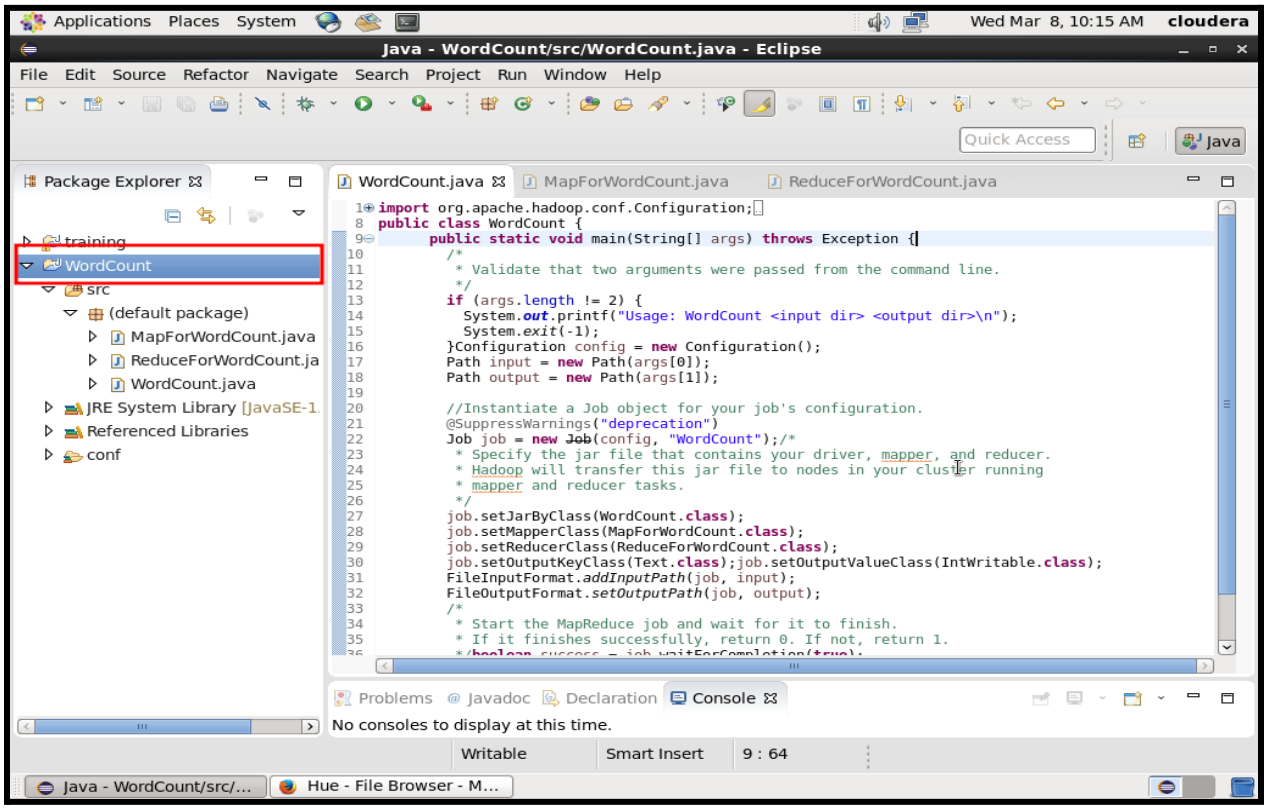

Hue - File Browser - Mozilla Firefox
Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera#/use
Search
Cloudera
Hue
Hadoop
HBase
Impala
Spark
Solr
Oozie
Cloudera Manager
Getting Started
Create File
File Name
Input.txt
Cancel
Create
File Browser
Upload
New
Home
Name
Size
User
Group
Permissions
Date
cloudera
cloudera
drwxr-xr-x
March 08, 2023 10:09 AM
Show 45 of 0 items
Page 1 of 1
Any Valid File Name

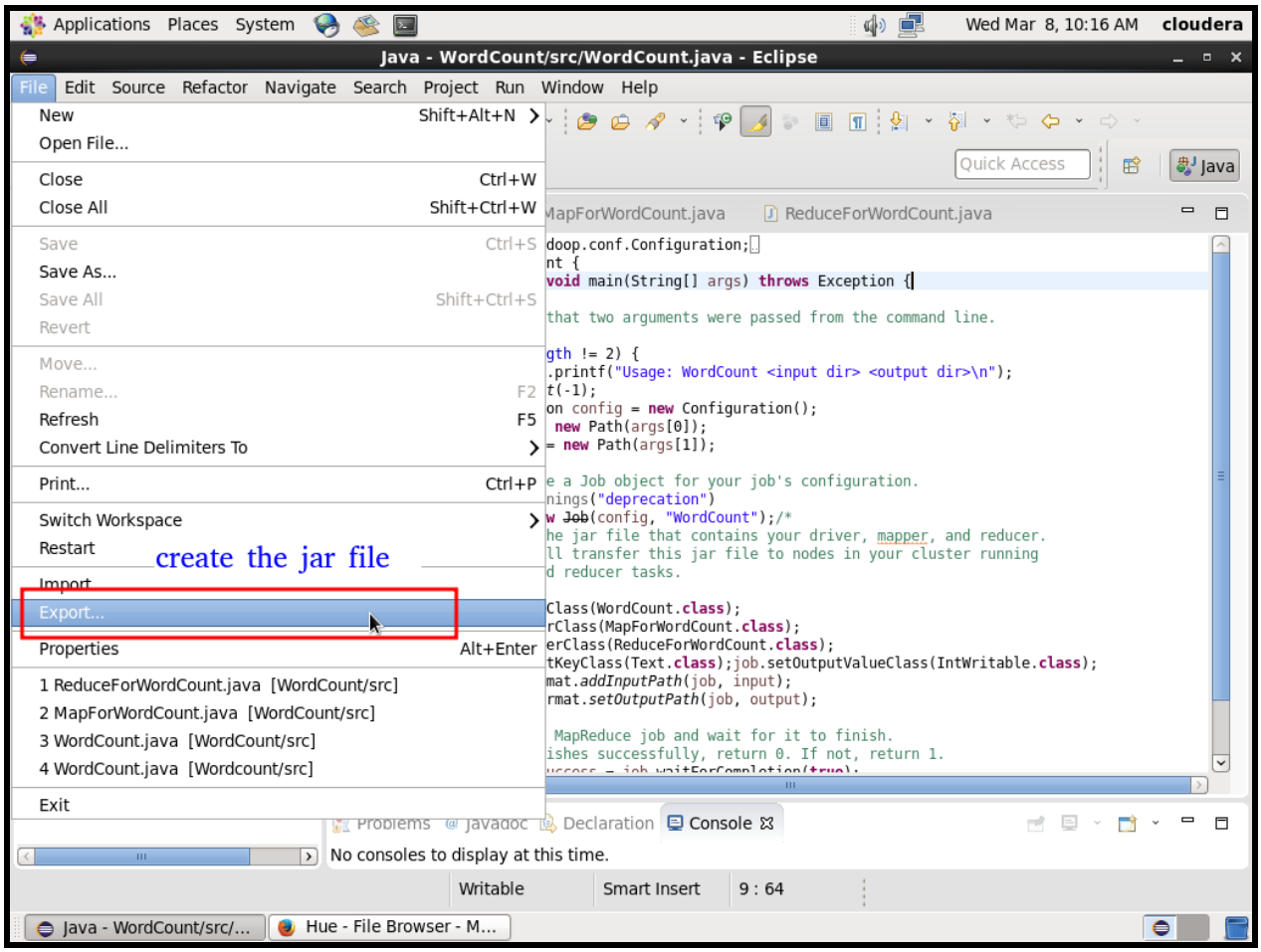

Applications Places System
Wed Mar 8, 10:11 AM cloudera
Hue - File Browser - Mozilla Firefox
Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera/Word
Search
Cloudera Hue Hadoop HBase Impala Spark Solr Oozie Cloudera Manager Getting Started
Query
Search data and saved documents...
Jobs
cloudera
File Browser
View as binary
Edit file
Download
View file location
Refresh
Last modified
03/08/2023 6:11 PM
User
cloudera
Group
cloudera
Size
0 B
Mode
100644
Home
Page 1 to 1 of 1
/ user / cloudera / WordCountProblem / Input.txt
The current file is empty.
Java - WordCount/src/...
Hue - File Browser - M...

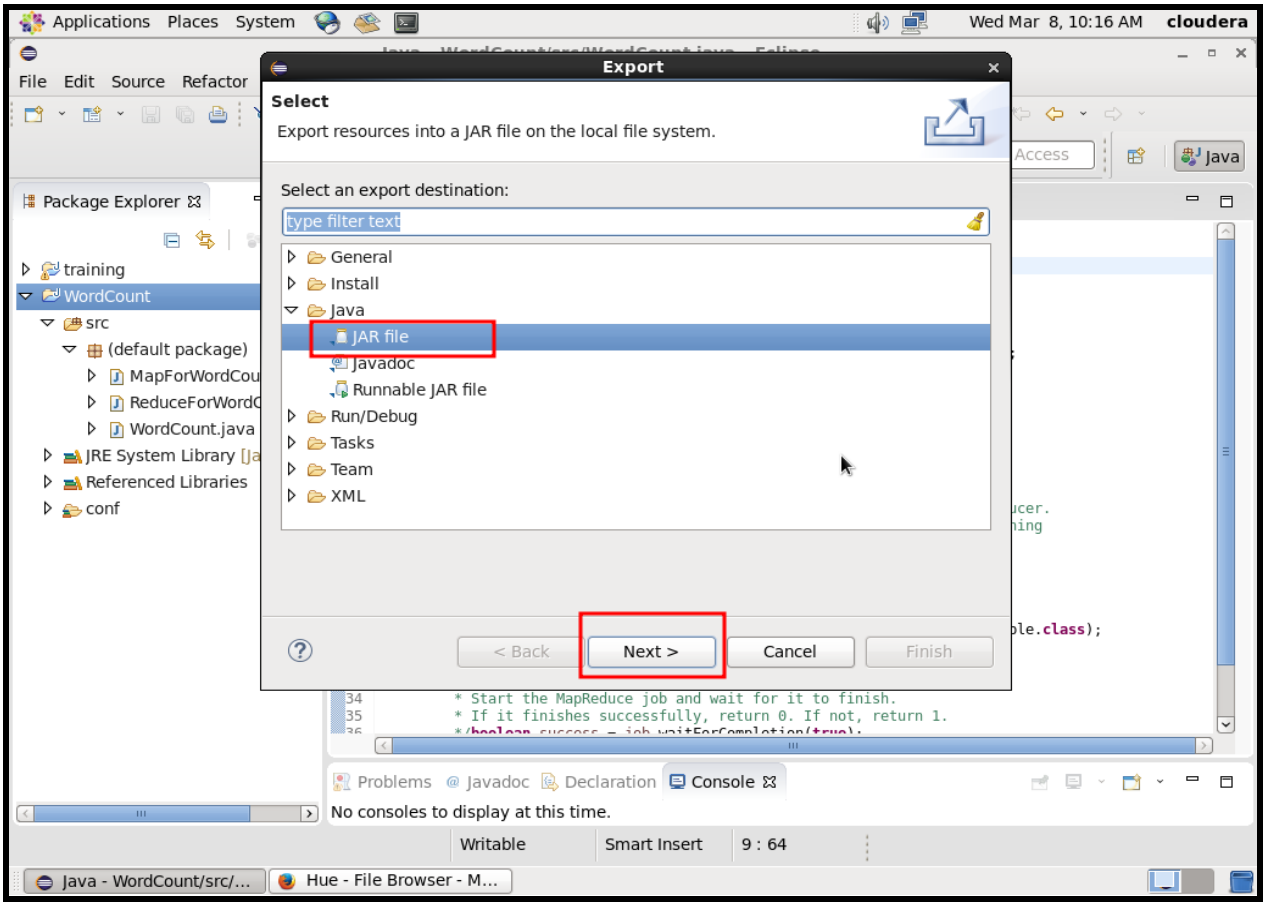

Hue - File Browser - Mozilla Firefox
Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera/Word
Search
Cloudera Hue Hadoop HBase Impala Spark Solr Oozie Cloudera Manager Getting Started
Query
Search data and saved documents...
Jobs
cloudera
File Browser
View file
Last modified
03/08/2023 6:33 PM
User
cloudera
Group
cloudera
Size
123 B
Mode
100644
Home / user / cloudera / WordCountProblem / Input.txt
I am going to school
I live in Bangladesh
I am going to home
I am going to school
I am going to school
I live in Bangladesh
Input Values randomly
Click Save as to see the directory where the file save
Save
Save as

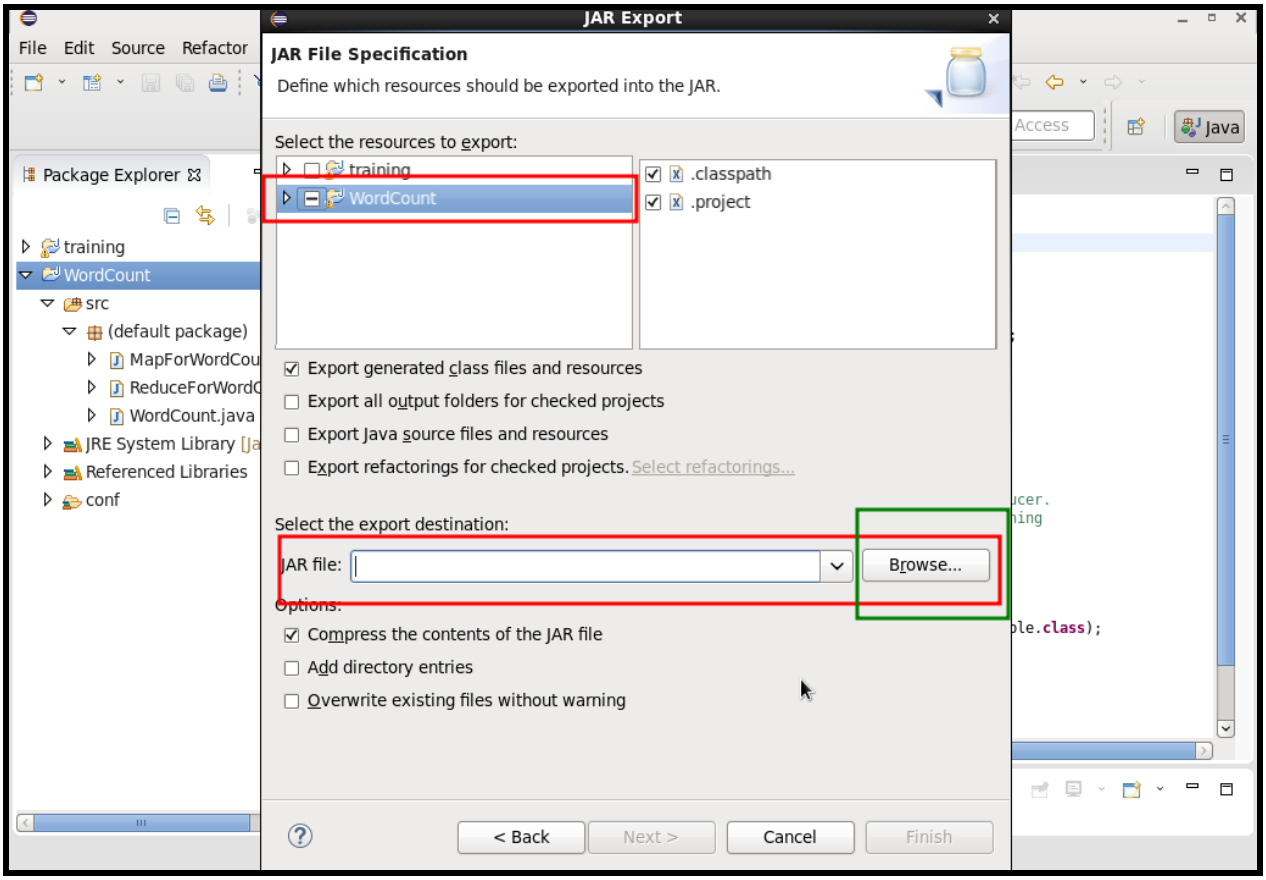


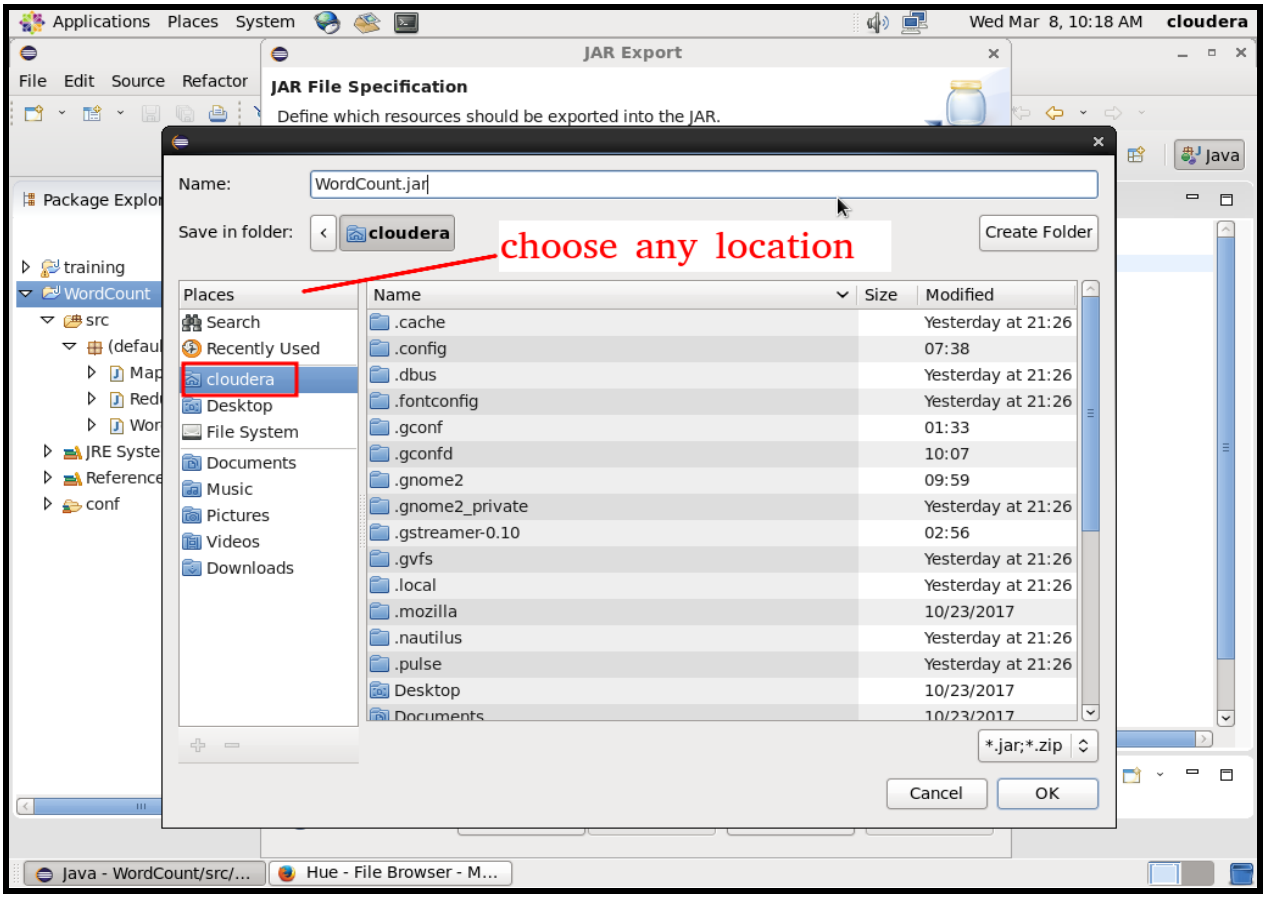
5. Jar file creation

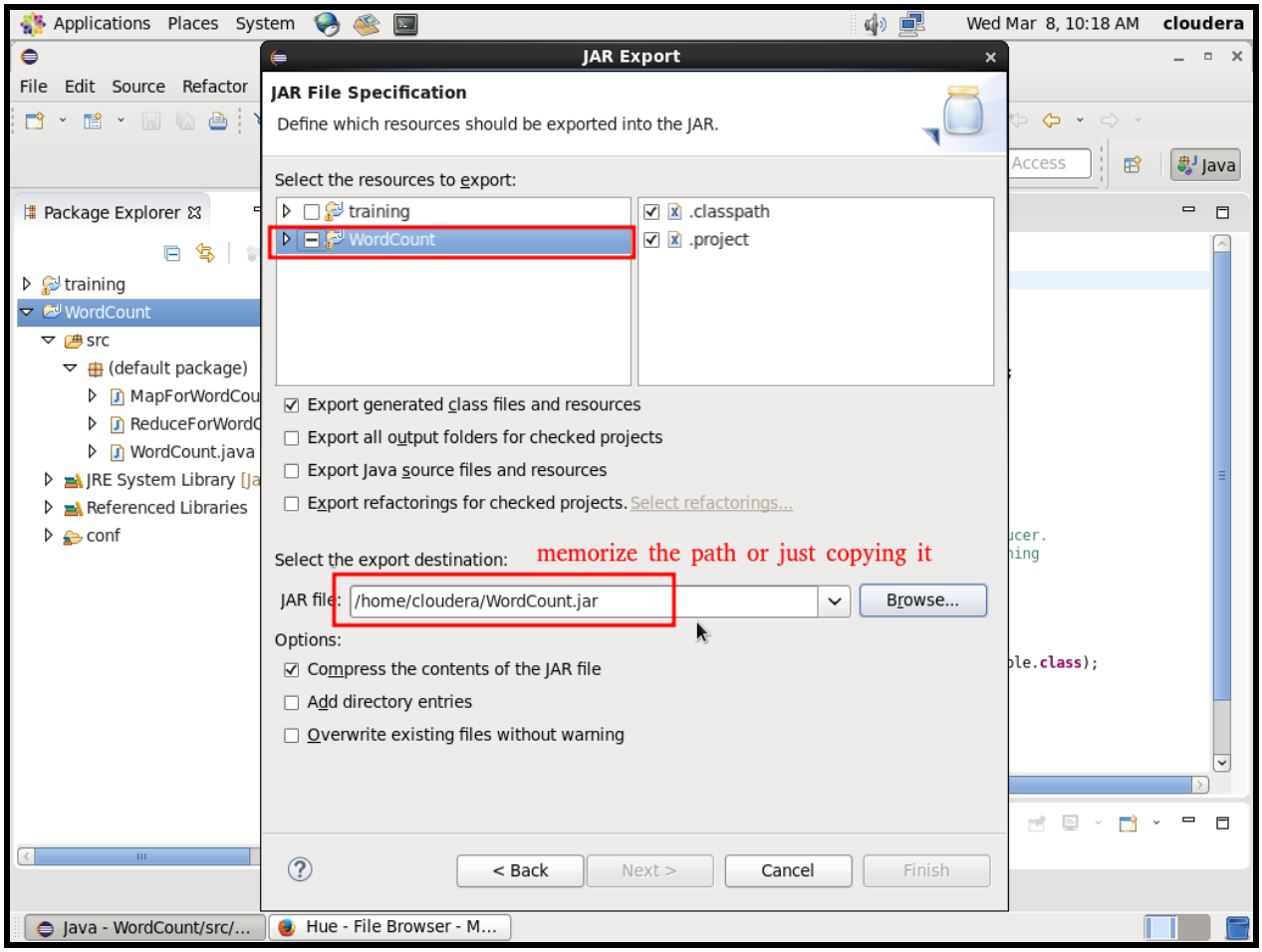



Applications Places System
Wed Mar 8, 10:16 AM cloudera
Java - WordCount/src/WordCount.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
New Shift+Alt+N
Open File...
Close Ctrl+W
Close All Shift+Ctrl+W
Save Ctrl+S
Save As...
Save All Shift+Ctrl+S
Revert
Move...
Rename... F2
Refresh F5
Convert Line Delimiters To
Print... Ctrl+P
Switch Workspace
Restart
Import
Export...
Properties Alt+Enter
1 ReduceForWordCount.java [WordCount/src]
2 MapForWordCount.java [WordCount/src]
3 WordCount.java [WordCount/src]
4 WordCount.java [Wordcount/src]
Exit
create the jar file
Quick Access
Java
MapForWordCount.java
ReduceForWordCount.java
Problems Javadoc Declaration Console
No consoles to display at this time.
Writable
Smart Insert
9 : 64
Java - WordCount/src/...
Hue - File Browser - M...

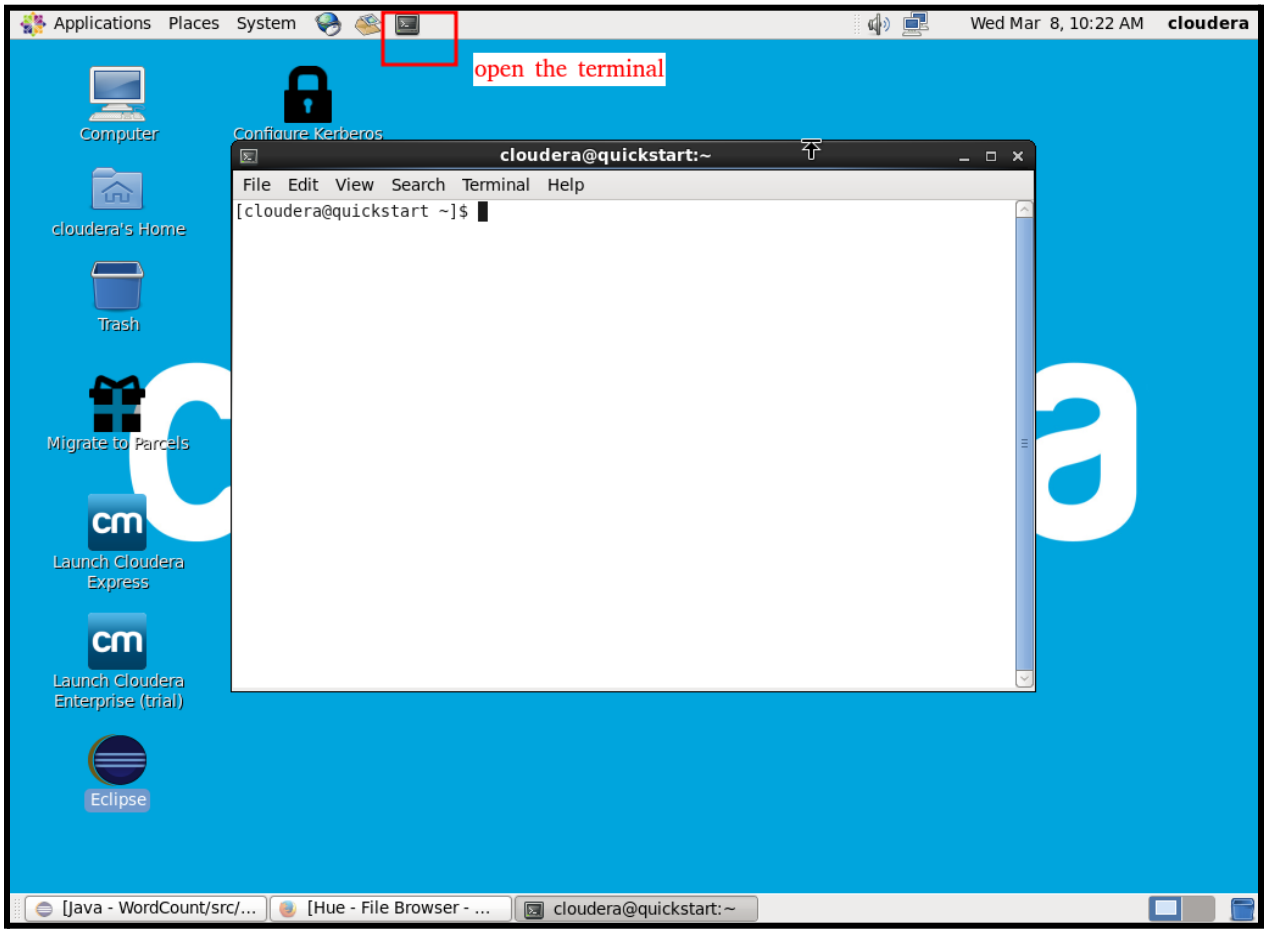

Applications Places System
Wed Mar 8, 10:16 AM cloudera
File Edit Source Refactor
Export
Select
Export resources into a JAR file on the local file system.
Select an export destination:
type filter text
General
Install
Java
JAR file
Javadoc
Runnable JAR file
Run/Debug
Tasks
Team
XML
< Back
Next >
Cancel
Finish
Package Explorer
training
WordCount
src
(default package)
MapForWordCou
ReduceForWordC
WordCount.java
JRE System Library [Ja
Referenced Libraries
conf
* Start the MapReduce job and wait for it to finish.
* If it finishes successfully, return 0. If not, return 1.
Problems Javadoc Declaration Console
No consoles to display at this time.
Writable
Smart Insert
9 : 64
Java - WordCount/src/...
Hue - File Browser - M...

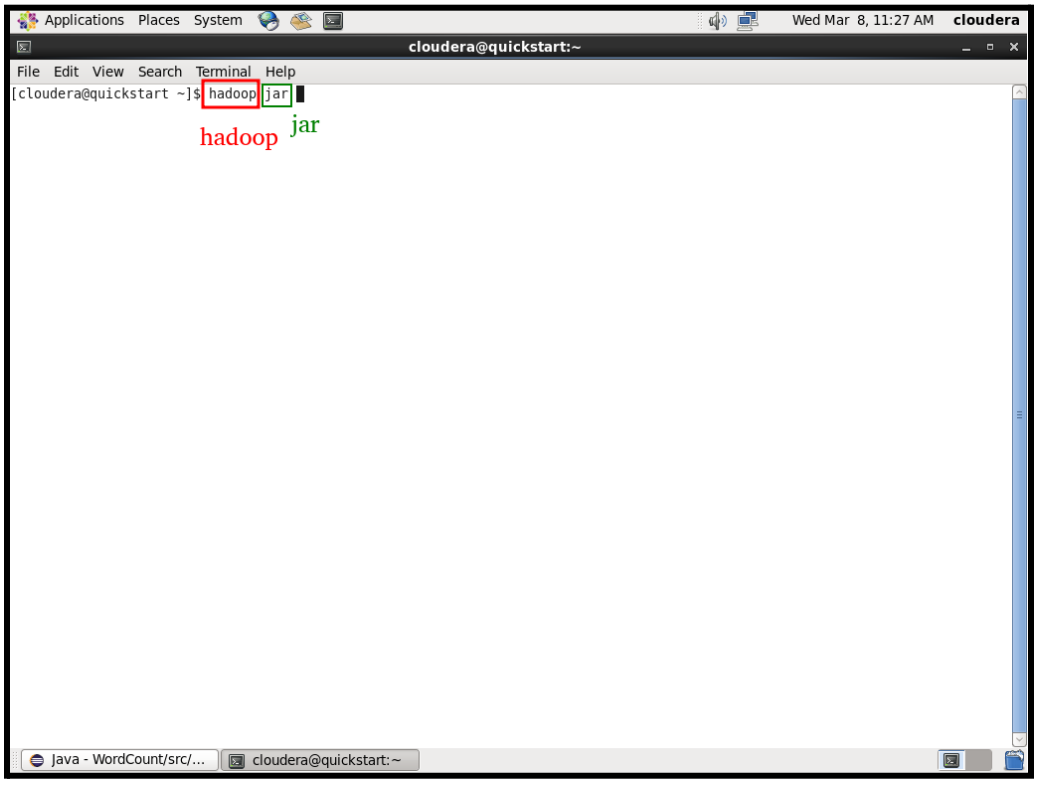

File Edit Source Refactor
JAR Export
JAR File Specification
Define which resources should be exported into the JAR.
Select the resources to export:
training
WordCount
.classpath
.project
Export generated class files and resources
Export all output folders for checked projects
Export Java source files and resources
Export refactorings for checked projects. Select refactorings...
Select the export destination:
JAR file:
Browse...
Options:
Compress the contents of the JAR file
Add directory entries
Overwrite existing files without warning
< Back
Next >
Cancel
Finish
Package Explorer
training
WordCount
src
(default package)
MapForWordCou
ReduceForWordC
WordCount.java
JRE System Library [Ja
Referenced Libraries
conf

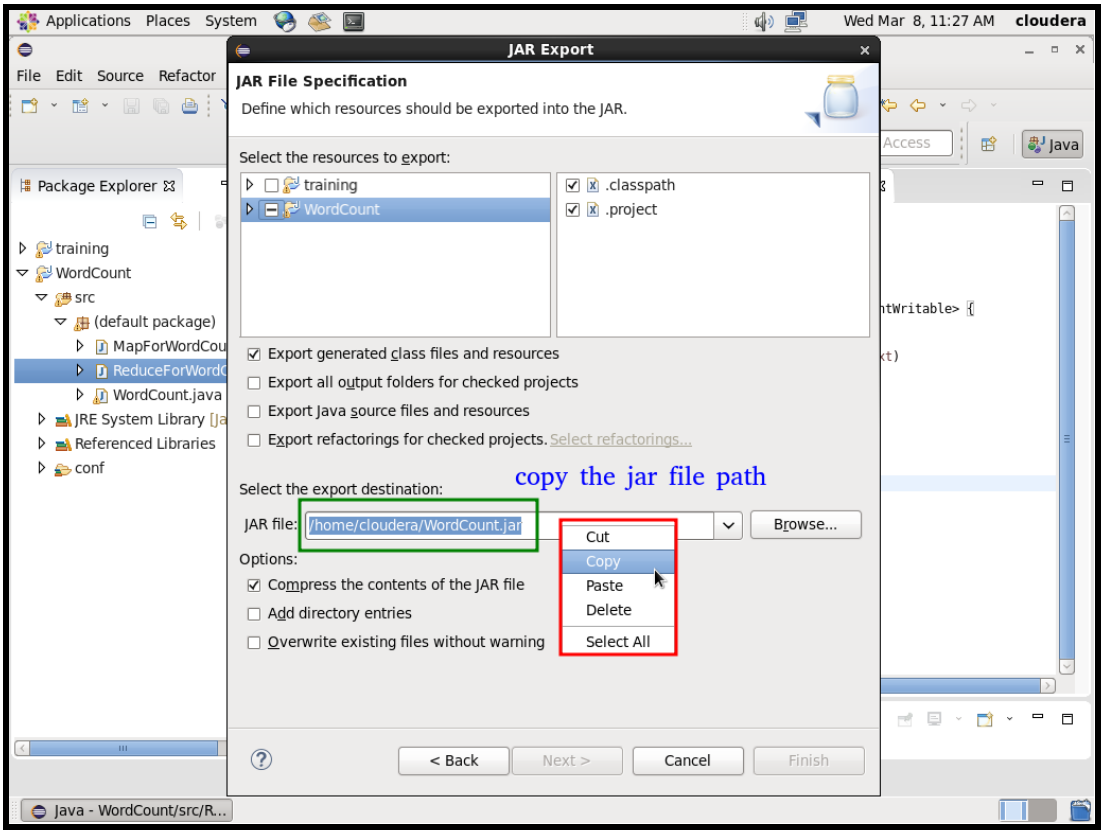

Applications Places System
Wed Mar 8, 10:18 AM cloudera
JAR Export
JAR File Specification
Define which resources should be exported into the JAR.
Name: WordCount.jar
Save in folder: cloudera
choose any location
Create Folder
Places
Search
Recently Used
cloudera
Desktop
File System
Documents
Music
Pictures
Videos
Downloads
Name
Size
Modified
.cache Yesterday at 21:26
.config 07:38
.dbus Yesterday at 21:26
.fontconfig Yesterday at 21:26
.gconf 01:33
.gconfd 10:07
.gnome2 09:59
.gnome2_private Yesterday at 21:26
.gstreamer-0.10 02:56
.gvfs Yesterday at 21:26
.local Yesterday at 21:26
.mozilla 10/23/2017
.nautilus Yesterday at 21:26
.pulse Yesterday at 21:26
Desktop 10/23/2017
.jar;.zip
Cancel
OK
Java - WordCount/src/...
Hue - File Browser - M...

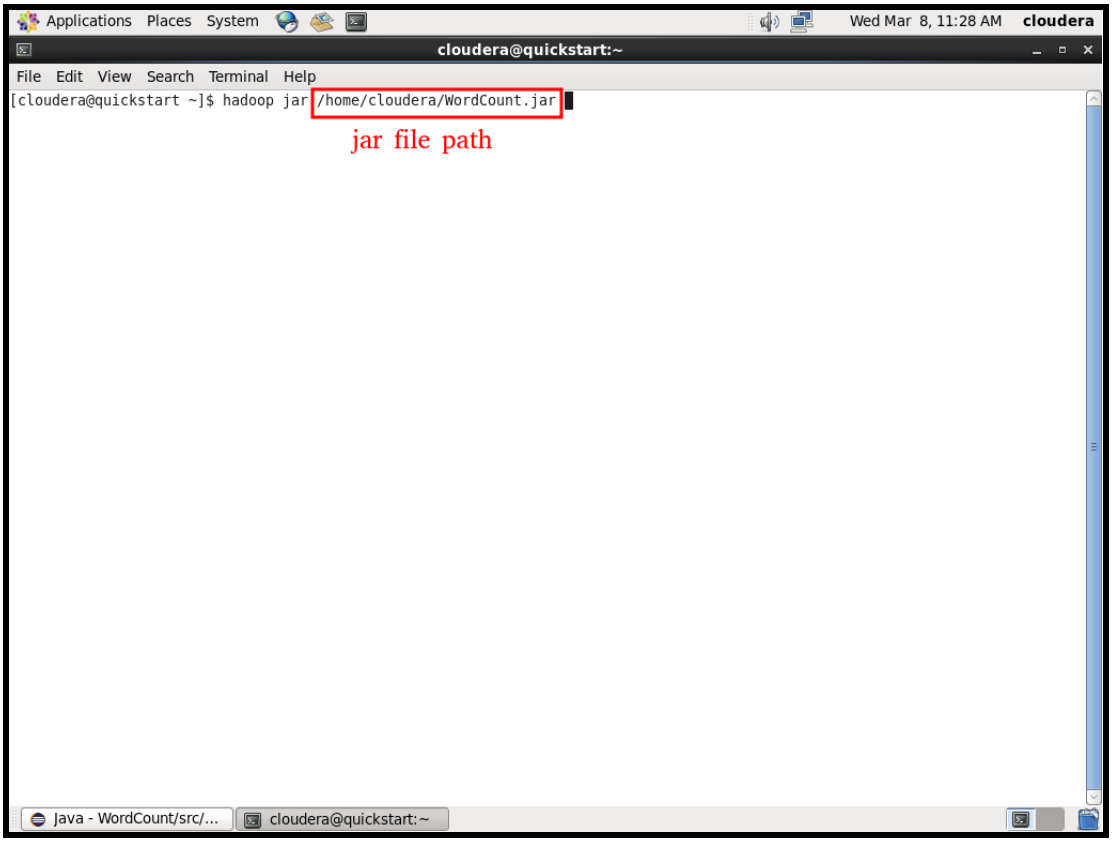

Applications Places System
Wed Mar 8, 10:18 AM cloudera
JAR Export
JAR File Specification
Define which resources should be exported into the JAR.
Select the resources to export:
training
WordCount
.classpath
.project
Export generated class files and resources
Export all output folders for checked projects
Export Java source files and resources
Export refactorings for checked projects. Select refactorings...
Select the export destination:
memorize the path or just copying it
JAR file: /home/cloudera/WordCount.jar
Browse...
Options:
Compress the contents of the JAR file
Add directory entries
Overwrite existing files without warning
< Back
Next >
Cancel
Finish
Package Explorer
training
WordCount
src
(default package)
MapForWordCou
ReduceForWordC
WordCount.java
JRE System Library [Ja
Referenced Libraries
conf
Java - WordCount/src/...
Hue - File Browser - M...

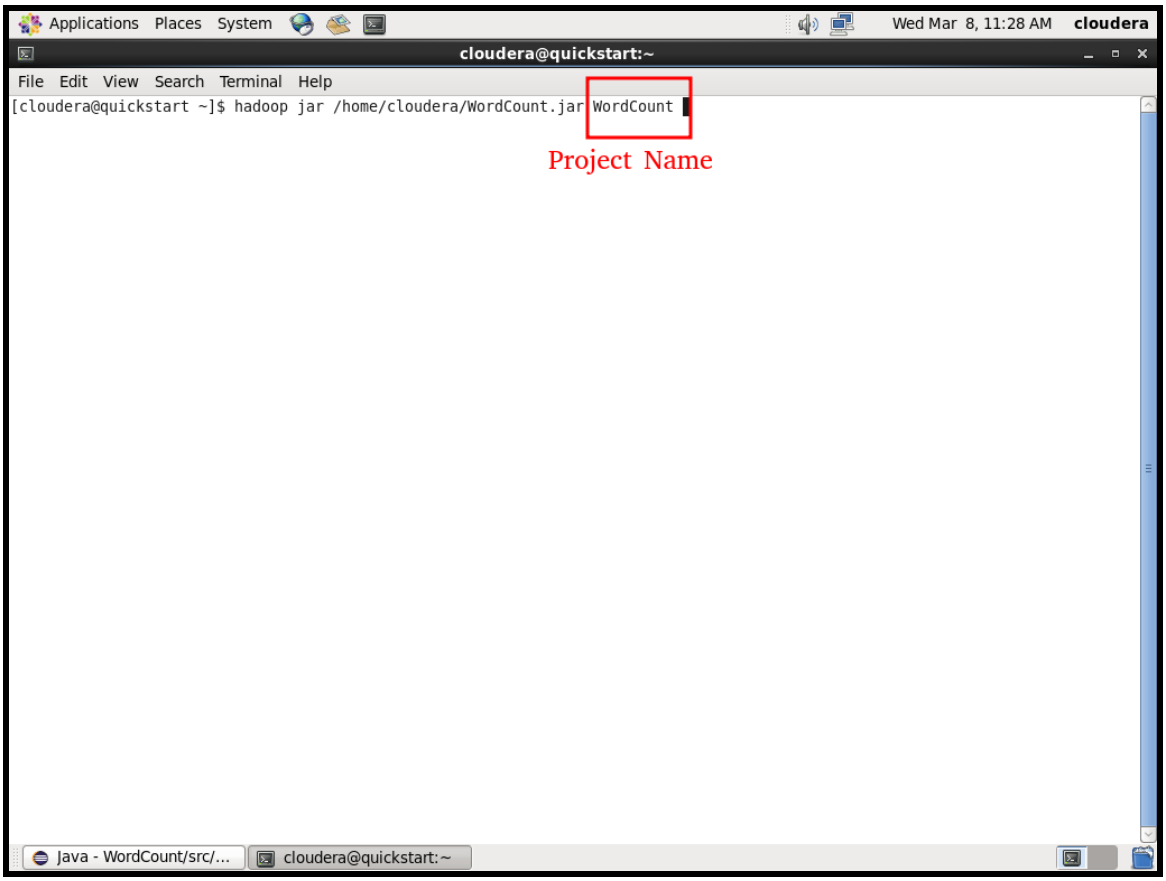
6. **Now it's time to opening the terminal and writing some commands to showing the Output for our Input.txt file**

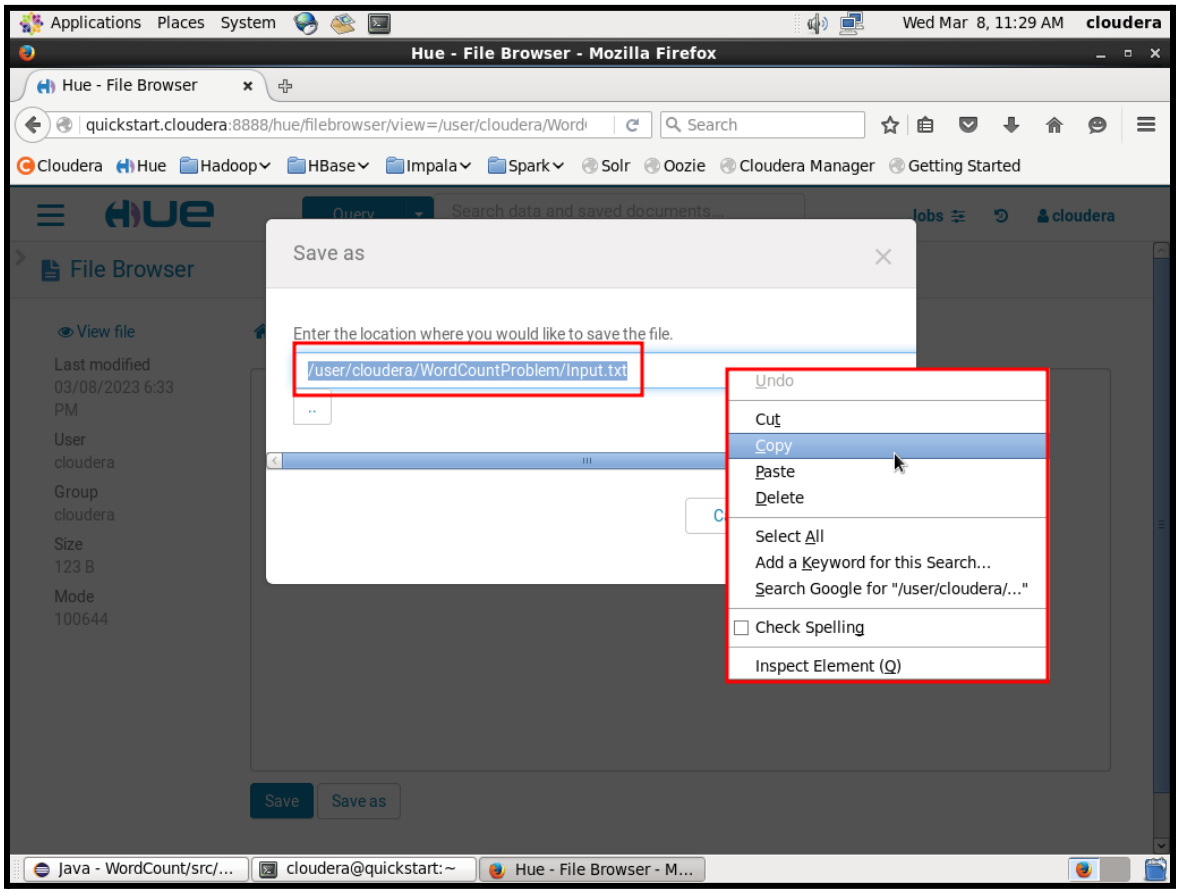


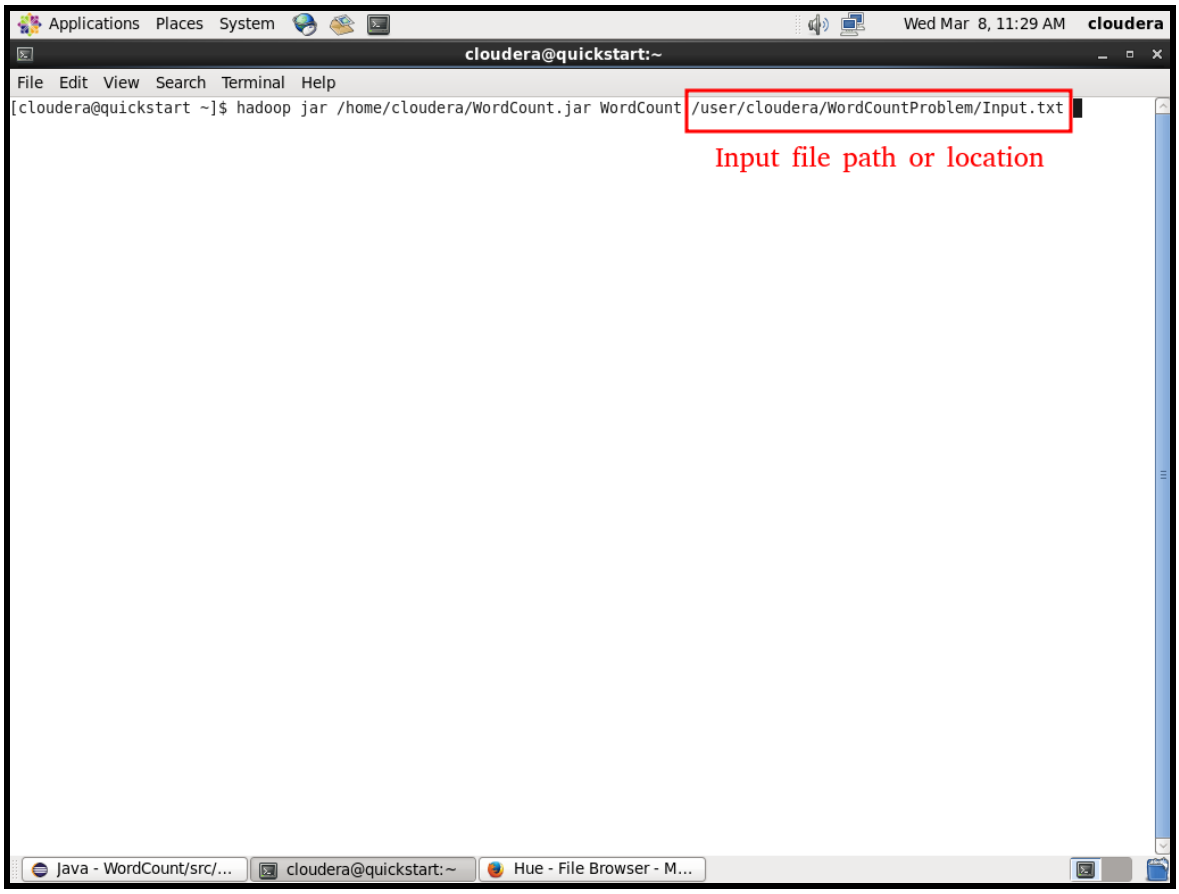


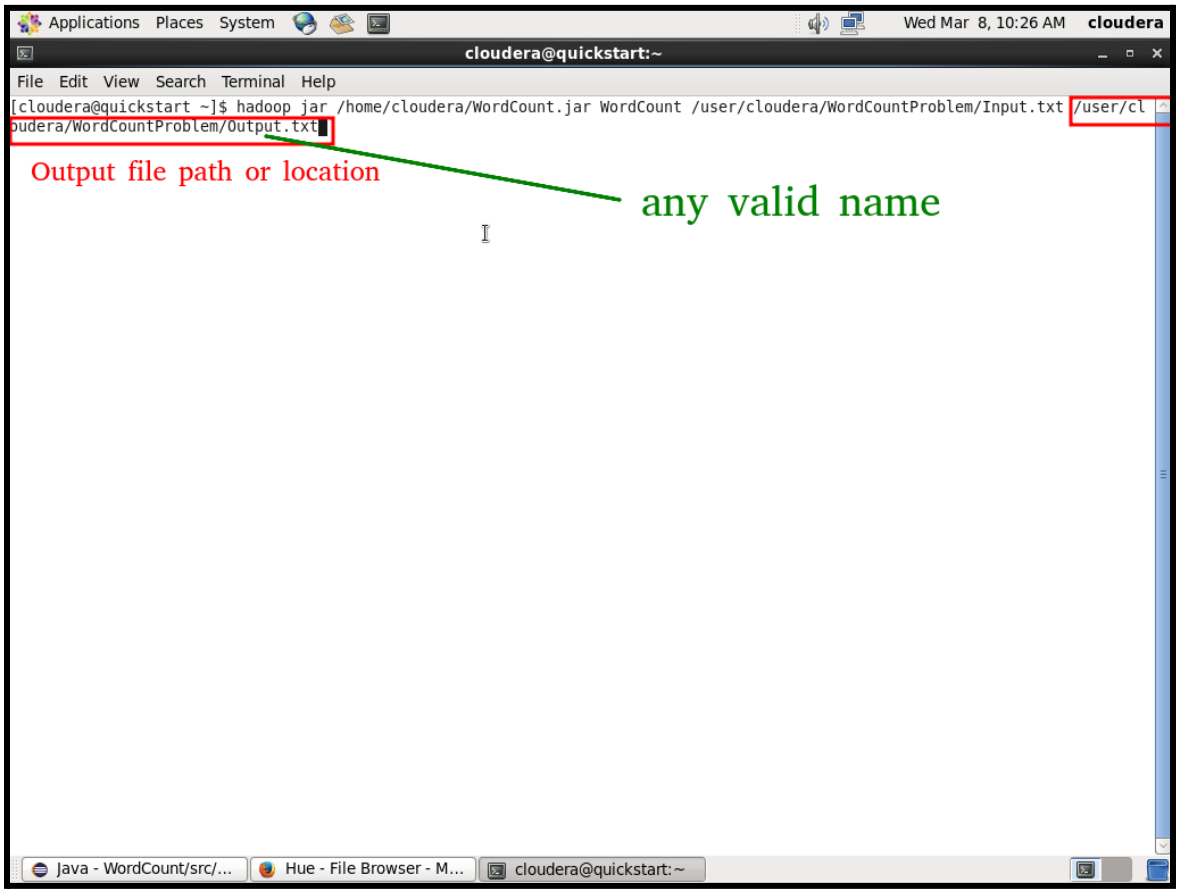

Applications Places System
Wed Mar 8, 11:27 AM cloudera
JAR Export
JAR File Specification
Define which resources should be exported into the JAR.
Select the resources to export:
training
WordCount
.classpath
.project
Export generated class files and resources
Export all output folders for checked projects
Export Java source files and resources
Export refactorings for checked projects. Select refactorings...
copy the jar file path
Select the export destination:
JAR file: /home/cloudera/WordCount.jar
Browse...
Options:
Compress the contents of the JAR file
Add directory entries
Overwrite existing files without warning
Cut
Copy
Paste
Delete
Select All
< Back
Next >
Cancel
Finish
Package Explorer
training
WordCount
src
(default package)
WordCount.java
JRE System Library
Referenced Libraries
conf
Java - WordCount/src/R...

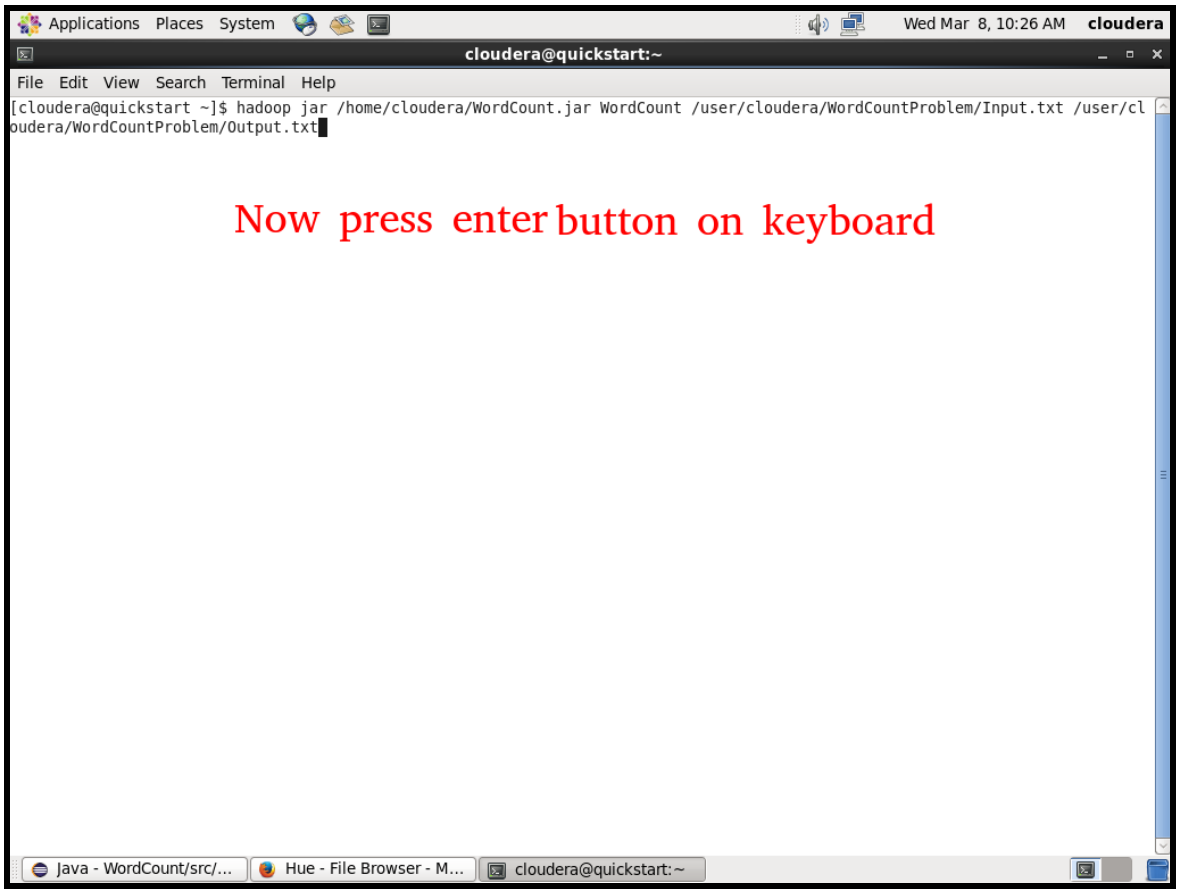

Applications Places System
Wed Mar 8, 11:28 AM cloudera
cloudera@quickstart:~
File Edit View Search Terminal Help
[cloudera@quickstart ~]$ hadoop jar /home/cloudera/WordCount.jar
jar file path
Java - WordCount/src/...
cloudera@quickstart:~

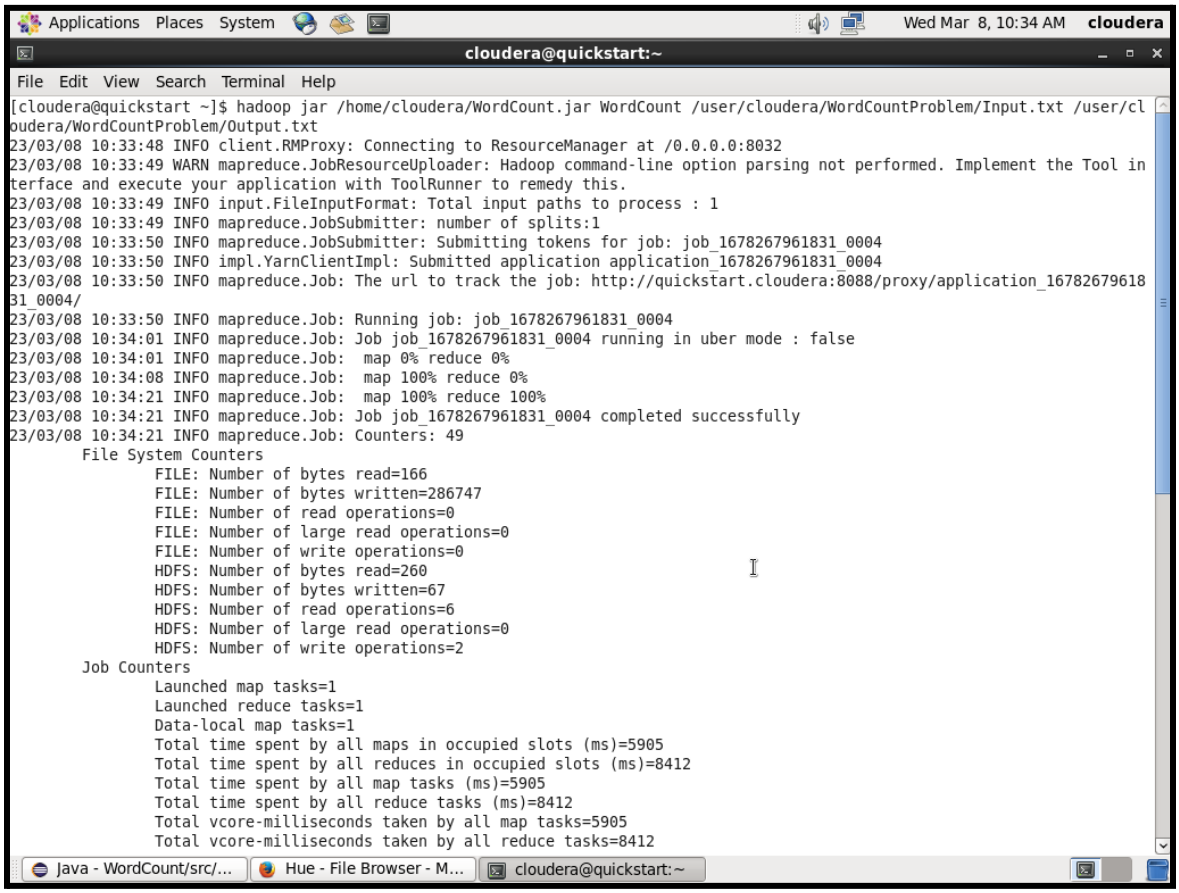

Applications Places System
Wed Mar 8, 11:28 AM cloudera
cloudera@quickstart:~
File Edit View Search Terminal Help
[cloudera@quickstart ~]$ hadoop jar /home/cloudera/WordCount.jar WordCount
Project Name
Java - WordCount/src/...
cloudera@quickstart:~

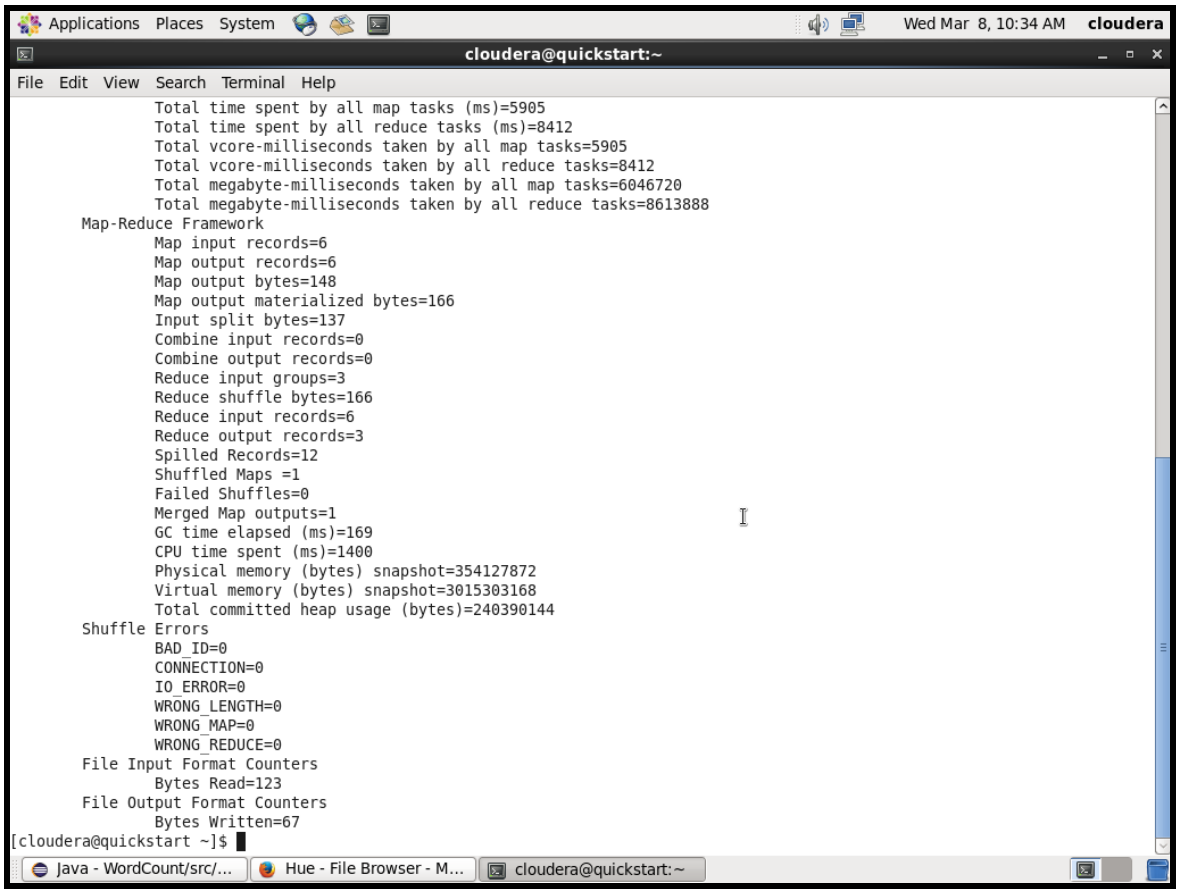

Applications Places System
Wed Mar 8, 11:29 AM cloudera
Hue - File Browser - Mozilla Firefox
Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera/Word
Search
Cloudera Hue Hadoop HBase Impala Spark Solr Oozie Cloudera Manager Getting Started
File Browser
Save as
Enter the location where you would like to save the file.
/user/cloudera/WordCountProblem/Input.txt
Undo
Cut
Copy
Paste
Delete
Select All
Add a Keyword for this Search...
Search Google for "/user/cloudera/..."
Check Spelling
Inspect Element (Q)
View file
Last modified
03/08/2023 6:33 PM
User
cloudera
Group
cloudera
Size
123 B
Mode
100644
Save
Save as
Java - WordCount/src/...
cloudera@quickstart:~
Hue - File Browser - M...


Applications Places System
Wed Mar 8, 11:29 AM cloudera
cloudera@quickstart:~
File Edit View Search Terminal Help
[cloudera@quickstart ~]$ hadoop jar /home/cloudera/WordCount.jar WordCount /user/cloudera/WordCountProblem/Input.txt
Input file path or location
Java - WordCount/src/...
cloudera@quickstart:~
Hue - File Browser - M...

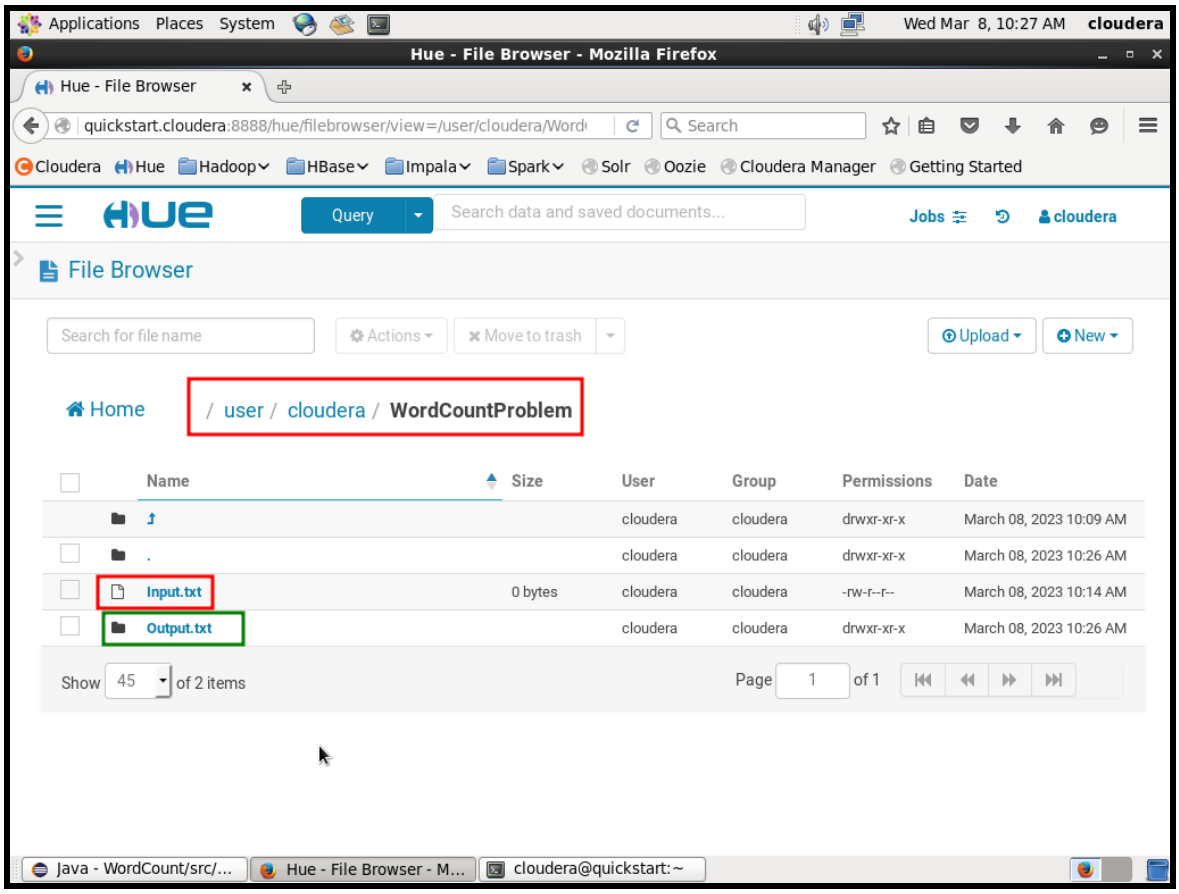

Applications Places System
Wed Mar 8, 10:26 AM cloudera
cloudera@quickstart:~
File Edit View Search Terminal Help
[cloudera@quickstart ~]$ hadoop jar /home/cloudera/WordCount.jar WordCount /user/cloudera/WordCountProblem/Input.txt /user/cl
oudera/WordCountProblem/Output.txt
Output file path or location
any valid name
Java - WordCount/src/...
Hue - File Browser - M...
cloudera@quickstart:~

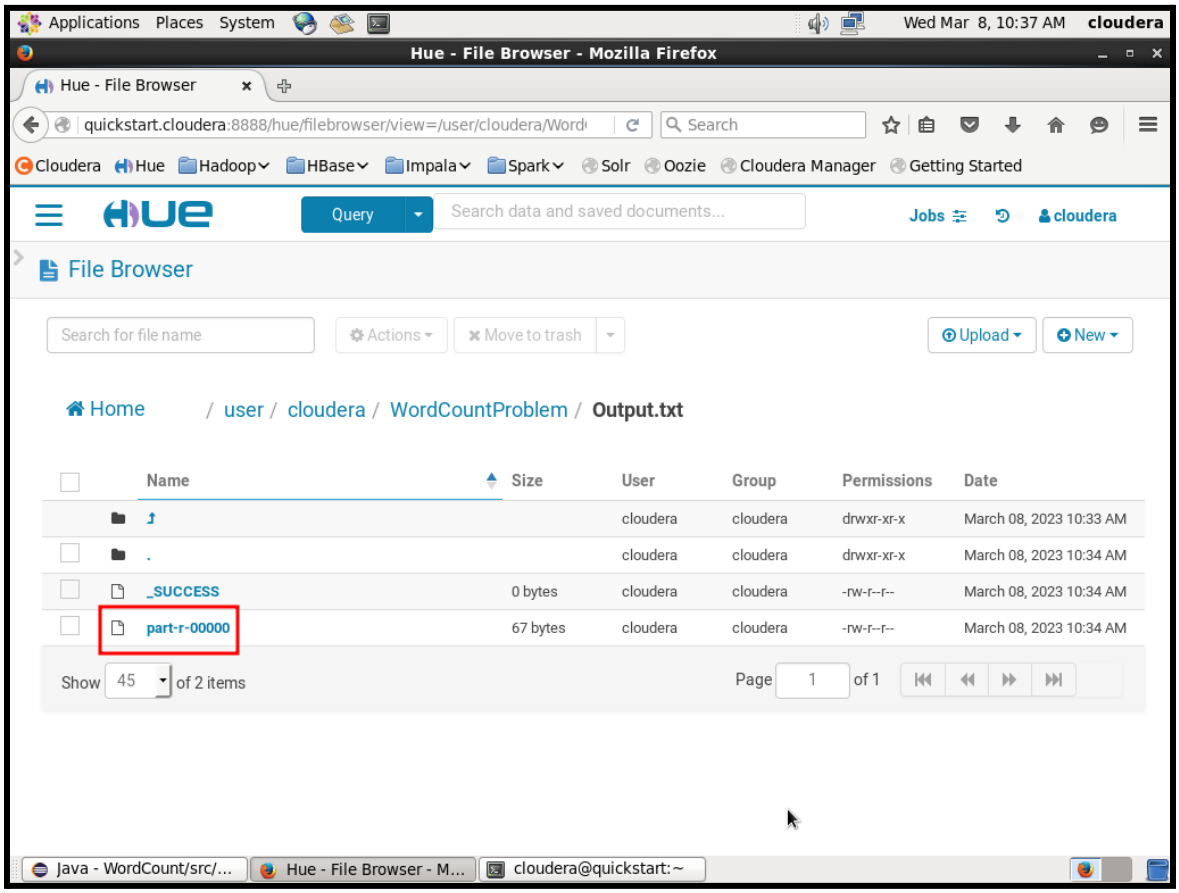

Applications Places System
Wed Mar 8, 10:26 AM cloudera
cloudera@quickstart:~
File Edit View Search Terminal Help
[cloudera@quickstart ~]$ hadoop jar /home/cloudera/WordCount.jar WordCount /user/cloudera/WordCountProblem/Input.txt /user/cloudera/WordCountProblem/Output.txt
Now press enter button on keyboard
Java - WordCount/src/...
Hue - File Browser - M...
cloudera@quickstart:~

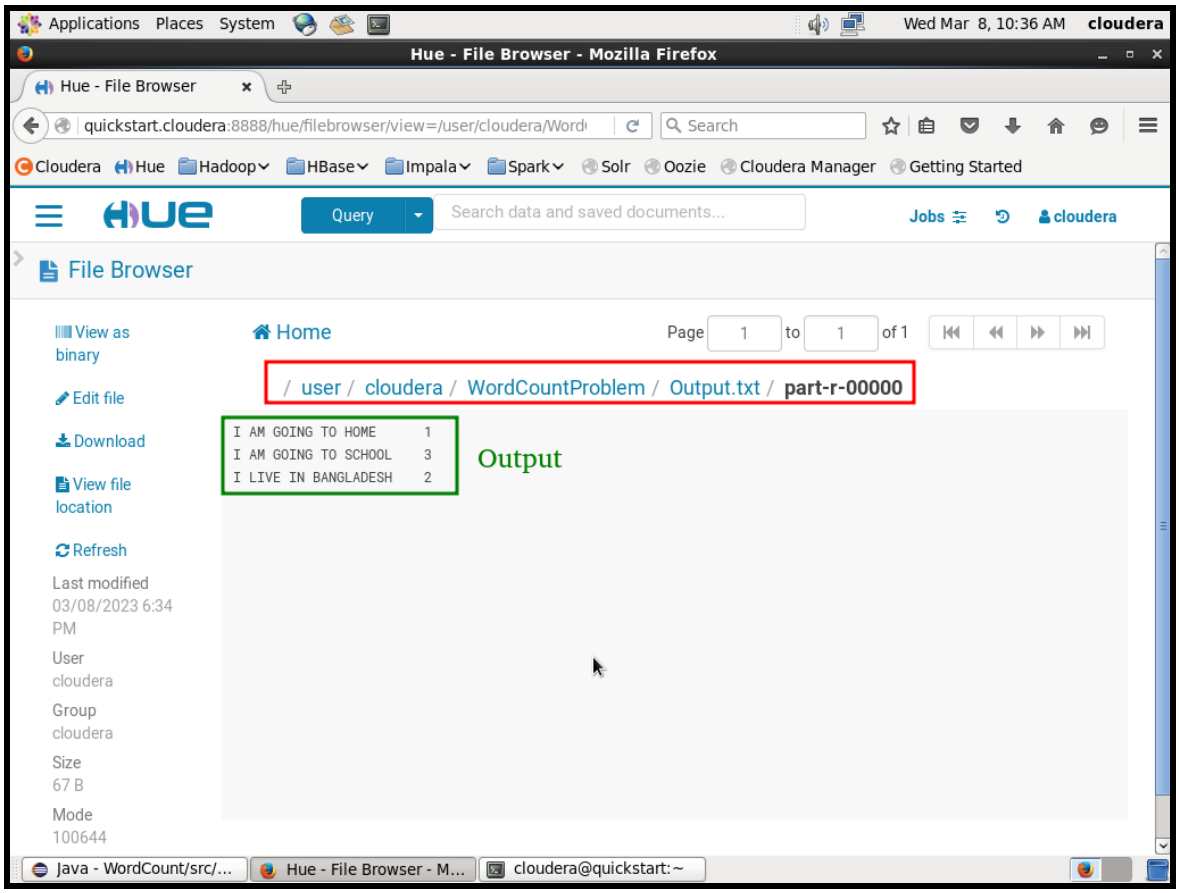

Applications Places System
Wed Mar 8, 10:34 AM cloudera
cloudera@quickstart:~
File Edit View Search Terminal Help
[cloudera@quickstart ~]$ hadoop jar /home/cloudera/WordCount.jar WordCount /user/cloudera/WordCountProblem/Input.txt /user/cloudera/WordCountProblem/Output.txt
23/03/08 10:33:48 INFO client.RMProxy: Connecting to ResourceManager at /0.0.0.0:8032
23/03/08 10:33:49 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.
23/03/08 10:33:49 INFO input.FileInputFormat: Total input paths to process : 1
23/03/08 10:33:49 INFO mapreduce.JobSubmitter: number of splits:1
23/03/08 10:33:50 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1678267961831_0004
23/03/08 10:33:50 INFO impl.YarnClientImpl: Submitted application application_1678267961831_0004
23/03/08 10:33:50 INFO mapreduce.Job: The url to track the job: http://quickstart.cloudera:8088/proxy/application_1678267961831_0004/
23/03/08 10:33:50 INFO mapreduce.Job: Running job: job_1678267961831_0004
23/03/08 10:34:01 INFO mapreduce.Job: Job job_1678267961831_0004 running in uber mode : false
23/03/08 10:34:01 INFO mapreduce.Job: map 0% reduce 0%
23/03/08 10:34:08 INFO mapreduce.Job: map 100% reduce 0%
23/03/08 10:34:21 INFO mapreduce.Job: map 100% reduce 100%
23/03/08 10:34:21 INFO mapreduce.Job: Job job_1678267961831_0004 completed successfully
23/03/08 10:34:21 INFO mapreduce.Job: Counters: 49
File System Counters
FILE: Number of bytes read=166
FILE: Number of bytes written=286747
FILE: Number of read operations=0
FILE: Number of large read operations=0
FILE: Number of write operations=0
HDFS: Number of bytes read=260
HDFS: Number of bytes written=67
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)=5905
Total time spent by all reduces in occupied slots (ms)=8412
Total time spent by all map tasks (ms)=5905
Total time spent by all reduce tasks (ms)=8412
Total vcore-milliseconds taken by all map tasks=5905
Total vcore-milliseconds taken by all reduce tasks=8412
Java - WordCount/src/...
Hue - File Browser - M...
cloudera@quickstart:~



7. **Now going back to the browser Hue section and then respectively the directory which we created before (WordCountProblem) we can see one new file added (Output.txt) or another valid name which we provide before.**


Applications Places System
Wed Mar 8, 10:27 AM cloudera
Hue - File Browser - Mozilla Firefox
Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera/Word
Search
Cloudera Hue Hadoop HBase Impala Spark Solr Oozie Cloudera Manager Getting Started
Query
Search data and saved documents...
Jobs cloudera
File Browser
Search for file name
Actions
Move to trash
Upload
New
Home / user / cloudera / WordCountProblem
Name Size User Group Permissions Date
cloudera cloudera drwxr-xr-x March 08, 2023 10:09 AM
. cloudera cloudera drwxr-xr-x March 08, 2023 10:26 AM
Input.txt 0 bytes cloudera cloudera -rw-r--r-- March 08, 2023 10:14 AM
Output.txt cloudera cloudera drwxr-xr-x March 08, 2023 10:26 AM
Show 45 of 2 items
Page 1 of 1
Java - WordCount/src/...
Hue - File Browser - M...
cloudera@quickstart:~


Applications Places System
Wed Mar 8, 10:37 AM cloudera
Hue - File Browser - Mozilla Firefox
Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera/Word
Search
Cloudera Hue Hadoop HBase Impala Spark Solr Oozie Cloudera Manager Getting Started
Query
Search data and saved documents...
Jobs cloudera
File Browser
Search for file name
Actions
Move to trash
Upload
New
Home / user / cloudera / WordCountProblem / Output.txt
Name Size User Group Permissions Date
cloudera cloudera drwxr-xr-x March 08, 2023 10:33 AM
. cloudera cloudera drwxr-xr-x March 08, 2023 10:34 AM
_SUCCESS 0 bytes cloudera cloudera -rw-r--r-- March 08, 2023 10:34 AM
part-r-00000 67 bytes cloudera cloudera -rw-r--r-- March 08, 2023 10:34 AM
Show 45 of 2 items
Page 1 of 1
Java - WordCount/src/...
Hue - File Browser - M...
cloudera@quickstart:~


Applications Places System
Wed Mar 8, 10:36 AM cloudera
Hue - File Browser - Mozilla Firefox
Hue - File Browser
quickstart.cloudera:8888/hue/filebrowser/view=/user/cloudera/Word
Search
Cloudera Hue Hadoop HBase Impala Spark Solr Oozie Cloudera Manager Getting Started
Query
Search data and saved documents...
Jobs
cloudera
File Browser
View as binary
Edit file
Download
View file location
Refresh
Last modified
03/08/2023 6:34 PM
User
cloudera
Group
cloudera
Size
67 B
Mode
100644
Home
Page 1 to 1 of 1
/ user / cloudera / WordCountProblem / Output.txt / part-r-00000
I AM GOING TO HOME 1
I AM GOING TO SCHOOL 3
I LIVE IN BANGLADESH 2
Output
Java - WordCount/src/...
Hue - File Browser - M...
cloudera@quickstart:~