

AIM:

Step by step Hadoop 2.8.0 installation on Windows 10.

Prereqs:

These softwares should be prepared to install Hadoop 2.8.0 on windows 10 64 bit

1. Download Hadoop 2.8.0
2. Java JDK 1.8.0 zip

Setup

1. Check either Java 1.8.0 is already installed on your system or not, use "javac -version" to check
2. If Java is not installed on your system then first install java under "C:\JAVA".
3. Extract file Hadoop 2.8.0.tar.gz or Hadoop-2.8.0 zip and place under "C:\Hadoop-2.8.0".
4. Set the path HADOOP_HOME environment variable on windows 10.
5. Set the JAVA_HOME environment variable on windows 10
6. Next we set the Hadoop bin directory path and JAVA bin directory path

Configuration :

1. Edit file `c:\Hadoop-2.8.0\etc\hadoop\core-site.xml`. paste below xml paragraph.

```
<configuration>
```

```
<property>
```

```
<name>fs.defaultFS</name>
```

```
<value>hdfs://localhost:9000</value>
```

```
</property>
```

```
</configuration>
```

2. Rename "~~mapred-site.xml.template~~" to "`mapred-site.xml`" and edit this file `c:\Hadoop-2.8.0\etc\hadoop\mapred-site.xml`. paste below xml paragraph and save this file.

```
<configuration>
```

```
<property>
```

```
<name>mapreduce.framework.name</name>
```

```
<value>yarn</value>
```

```
</property>
```

```
</configuration>
```

3. Create folder "data" under "`c:\Hadoop-2.8.0`"

→ Create folder "datanode" under "`c:\Hadoop-2.8.0\data`"

→ Create folder "namenode" under "`c:\Hadoop-2.8.0\data`"

4. Edit the `c:\Hadoop-2.8.0\etc\hadoop\hdfs-site.xml`, paste below xml paragraph and save this file.

```
<configuration>
```

```
<property>
```

```
<name> dfs.replication </name>
```

```
<value> 1 </value>
```

```
</property>
```

```
<property>
```

```
<name> dfs.namenode.name.dir </name>
```

```
<value> /hadoop-2.8.0/data/namenode </value>
```

```
</property>
```

```
<property>
```

```
<name> dfs.datanode.data.dir </name>
```

```
<value> /hadoop-2.8.0/data/datanode </value>
```

```
</property>
```

```
</configuration>
```

5. Edit file `c:\Hadoop-2.8.0\etc\hadoop\hadoop-env.cmd` by closing the command line "`JAVA_HOME = .`". `JAVA_HOME = .` instead of `set "JAVA_HOME = c:\Java"`.

@rem The Java implementation to use. Required

@rem set java HOME = %JAVA_HOME%

Set JAVA_HOME = c:\Java.

Hadoop configuration:

1. Download file Hadoop configuration.zip
2. Delete file bin on ~~C:~~:\Hadoop-2.8.0\bin, replaced by file bin on file just download.
3. open and typing command "hdfs namenode-format". you will see.

Testing:

1. open cmd and change directory to "c:\Hadoop-2.8.0\bin" and type "start-all.cmd" to start apache
2. Make sure these apps are running
 - * Hadoop namenode
 - * Hadoop datanode
 - * YARN Resource Manager
 - * YARN Node Manager.
3. open : <http://localhost:8088>
4. open : <http://localhost:50070>

RESULT:

Thus, the Hadoop installation on windows is done.

AIM:

To Run Hadoop wordcount MapReduce on Windows 10

PROCEDURE:

```
C:\Users\jeb21>hdfs namenode -format
```

```
C:\hadoop-2.8.0\sbin>start -all.cmd
```

```
C:\hadoop-2.8.0\sbin>jps
```

```
3472 DataNode
```

```
21896 JPS
```

```
7688 ResourceManager
```

```
26492 NameNode.
```

```
C:\>hadoop fs -mkdir /input_dir
```

```
C:\>hadoop fs -put E:\input_file.txt /input_dir
```

```
C:\>hadoop fs -ls /input_dir/
```

```
Found 1 items.
```

```
-rw-r--r-- 1 jeb21 supergroup 283 2023-1-27 21:19
```

```
/input_dir/input_file.txt
```

```
C:\>hadoop dfs -cat /input_dir /input_file.txt
```

```
C:\>hadoop jar C:\hadoop-2.8.0\share\hadoop\mapreduce\hadoop-mapreduce-examples-2.8.0.jar wordcount /input_dir /input_file.txt /output_dir
```

```
C:\>hadoop dfs -cat /output_dir /*
```

1987	1	
2001	1	
Chennai,		1
College	1	
Engineering		
India.	1	
Institute		1
It	1	
Jeppia		1
Nadu,	1	
Sathyabama		
Science	1	
Tamil	1	
Technology,		1
University,		1
a	1	
and	2	
as	1	
at	1	
be	2	
by	1	
deemed	2	
formerly		1
founded	1	
In	2	
is	1	
its	1	
late	1	
of	1	
received		1

Situated		1
status	1	
the	1	
to	2	
University		1
University		1
was	1.	

RESULT:

Thus, the Hadoop ~~Wordcount~~ MapReduce on
Windows 10 was executed successfully.