EX. NO: H-1

AIM:

To perform setting up, Install, configure and run Hadoop and HDFS

PROCEDURE:

Step by step Hadoop 2.8.0 installation on Windows 10 Prepare:
These software's should be prepared to install Hadoop 2.8.0 on window 10 - 64 bits.
1) Download Hadoop 2.8.0
(Link:
http://wwweu.apache.org/dist/hadoop/com
mon/hadoop2.8.0/hadoop-2.8.0.tar.gz OR
http://archive.apache.org/dist/hadoop/core/
/hadoop-2.8.0/hadoop2.8.0.tar.gz)
2) Java JDK 1.8.0.zip
(Link: http://www.oracle.com/technetwork/java/javase/downloads/jdk8downloads-2133151.html)

Set up:

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

Configuration:

a) File C:/Hadoop-
2.8.0/etc/hadoop/core-site.xml, paste

below xml paragraph andsave this file.
fs.defaultFS
hdfs://localhost:9000

b)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.

mapreduce.framework.name
yarn
c) Create folder "data" under "C:\Hadoop-2.8.0"
1) Create folder "datanode" under "C:\Hadoop-2.8.0\data"
2) Create folder "namenode" under "C:\Hadoop-2.8.0\data" data
d) Edit file C:\Hadoop-
2.8.0/etc/hadoop/hdfs-site.xml, paste
below xml paragraphand save this file.

dfs.replication
1
dfs.namenode.name.dir
C:\hadoop-2.8.0\data\namenode

dfs.datanode.data.dir
C:\hadoop-2.8.0\data\datanode

e) Edit file C:/Hadoop-
2.8.0/etc/hadoop/yarn-site.xml, paste
below xml paragraphand save this file.

yarn.nodemanager.aux-services
mapreduce_shuffle

yarn.nodemanager.auxservices.mapreduce.shuffle.class
org.apache.hadoop.mapred.ShuffleHandler
f) Edit file C:/Hadoop-
2.8.0/etc/hadoop/hadoop-env.cmd by
closing the commandline
"JAVA_HOME=%JAVA_HOME%"
instead of set "JAVA_HOME=C:\Java"
(On C:\java this is path to file jdk.18.0)

Hadoop Configuration:

7) Download File Hadoop
   Configuration.zip
   (Link:
https://github.com/MuhammadBilalYar/HADOOP-INSTALLATION-ONWINDOW-
10/blob/master/Hadoop%20Configuration.zip)
8) Delete file bin on C:\Hadoop-2.8.0\bin,
replaced by file bin on file just download
(from Hadoop Configuration.zip).
9) Open cmd and typing command
"hdfs namenode –format" .You will
see hdfsnamenode –format

Testing:
10) Open cmd and change directory to "C:\Hadoop-2.8.0\sbin" and type "startall.cmd" to start
    apache.
11) Make sure these apps are running.
a) Name node
b) Hadoop data node
c) YARN Resource Manager
d) YARN Node Manager hadoop nodes
12) Open: http://localhost:8088
13) Open: http://localhost:50070

RESULT:

         Thus, performing Set up, Install, configure and run Hadoop and HDFS is carried

out on Windows Environment.