

EXP. 22: PERFORM THE BASIC CONFIGURATION SETUP FOR INSTALLING HADOOP 2.X LIKE CREATING THE HDUSER AND SSH LOCALHOST

AIM: PERFORM THE BASIC CONFIGURATION SETUP FOR INSTALLING HADOOP 2.X LIKE CREATING THE HDUSER AND SSH LOCALHOST

PROCEDURE:

Step 1 – System Update

```
$ sudo apt-get update
```

Step 2 – Install Java and Set JAVA_HOME

//This first thing to do is to setup the webupd8 ppa on your system. Run the following command and proceed.

```
$ sudo apt-add-repository ppa:webupd8team/java
```

```
$ sudo apt-get update
```

//After setting up the ppa repository, update the package cache as well.

```
//Install the Java 8 installer
```

```
$ sudo apt-get install oracle-java8-installer
```

// After the installation is finished, Oracle Java is setup. Run the java command again to check the version and vendor.

[or]

```
$ sudo apt-get install default-jdk
```

```
$ java -version
```

Step 3 – Add a dedicated Hadoop user

```
$ sudo addgroup hadoop
```

```
$ sudo adduser --ingroup hadoop hduser
```

// Add hduser to sudo user group

```
$ sudo adduser hduser sudo
```

Step 4 – Install SSH and Create Certificates

```
$ sudo apt-get install ssh
```

```
$ su hduser
```

```
$ ssh-keygen -t rsa -P ""
```

// Set Environmental variables

```
$ cat $HOME/.ssh/id_rsa.pub >> $HOME/.ssh/authorized_keys
```

Step 5 – Check if SSH works

```
$ ssh localhost
```

Step 6 – Install Hadoop

```
// Extract Hadoop-2.7.2  
$ sudo tar xvzf hadoop-2.7.2.tar.gz  
// Create a folder 'hadoop' in /usr/local  
$ sudo mkdir -p /usr/local/hadoop  
// Move the Hadoop folder to /usr/local/hadoop  
$ sudo mv hadoop-2.7.2 /usr/local/hadoop  
// Assigning read and write access to Hadoop folder  
$ sudo chown -R hduser:hadoop /usr/local/Hadoop
```

IMPLEMENTATION:

```
udhay@ubuntu:~$ su hduser  
Password:  
hduser@ubuntu:/home/udhay$ ssh-keygen -t rsa -P ""  
Generating public/private rsa key pair.  
Enter file in which to save the key (/home/hduser/.ssh/id_rsa):  
/home/hduser/.ssh/id_rsa already exists.  
Overwrite (y/n)? y  
Your identification has been saved in /home/hduser/.ssh/id_rsa.  
Your public key has been saved in /home/hduser/.ssh/id_rsa.pub.  
The key fingerprint is:  
09:0f:15:f2:b2:b7:5e:11:1a:6c:d3:2f:c3:09:02:15 hduser@ubuntu  
The key's randomart image is:  
+---[RSA 2048]---+  
| ..E.o. |  
| . = . |  
| = B o |  
| O B + |  
| . S * . |  
| . . + |  
| . . |  
| . . |  
+-----+  
hduser@ubuntu:~/home/udhay$  
  
hduser@ubuntu:/home/udhay$ cat $HOME/.ssh/id_rsa.pub >> $HOME/.ssh/authorized_keys  
hduser@ubuntu:/home/udhay$ ssh localhost  
Welcome to Ubuntu 15.04 (GNU/Linux 3.19.0-84-generic x86_64)  
  
* Documentation: https://help.ubuntu.com/  
  
Last login: Thu Jul 15 22:00:14 2021 from localhost  
hduser@ubuntu:~$ █
```

About the Cluster

About the Cluster

Namenode information

About the Cluster

localhost:8088/cluster/cluster

Search

hadoop

About the Cluster

Cluster Metrics

Apps Submitted	Apps Pending	Apps Running	Apps Completed	Containers Running	Memory Used	Memory Total	Memory Reserved	Vcores Used	Vcores Total	Vcores Reserved	Active Nodes	ID
0	0	0	0	0	0 B	8 GB	0 B	0	8	0	1	0

Scheduler Metrics

Scheduler Type	Scheduling Resource Type	Minimum Allocation
Capacity Scheduler	[MEMORY]	<memory:1024, vCores:1>

Cluster ID: 1626414170591
ResourceManager state: STARTED
ResourceManager HA state: active
ResourceManager HA zookeeper connection state: ResourceManager HA is not enabled.
ResourceManager RMStateStore: org.apache.hadoop.yarn.server.resourcemanager.recovery.NullRMStateStore
ResourceManager started on: Thu Jul 15 22:42:50 -0700 2021
ResourceManager version: 2.7.2 from b165c4fe8a74265c792ce23f546c64604acf0e41 by Jenkins source checksum 2016-01-26T00:16Z
Hadoop version: 2.7.2 from b165c4fe8a74265c792ce23f546c64604acf0e41 by Jenkins source checksum 2016-01-26T00:08Z

Activate Windows

RESULT: To Perform The Basic Configuration Setup For Installing Hadoop 2.X Like Creating The Hduser And Ssh Localhost Have Successfully Implemented