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HOW TO SETUP HADOOP 3.2 ON WINDOWS 10

1. Download the Hadoop binary from the following url:
   https://www.apache.org/dyn/closer.cgi/hadoop/common/hadoop-3.2.2/hadoop-3.2.2.tar.gz
2. Extract the **hadoop-3.2.2.tar.gz** to **C:\opt**
3. Download the JDK 8 from the following link
   https://www.oracle.com/java/technologies/javase/javase-jdk8-downloads.html
4. Install **jdk-8u281-windows-x64.exe** to **c:\opt**
5. Edit the **setenv.bat** with the following content:

```
set JAVA_HOME=c:\opt\jdk1.8.0_281
set PATH=%JAVA_HOME%/bin;%PATH%
set HADOOP_HOME=c:\opt\hadoop-3.2.2
set HADOOP_CONF_DIR=c:\opt\hadoop-3.2.2\etc\hadoop
set HADOOP_MAPRED_HOME=c:\opt\hadoop-3.2.2
set HADOOP_COMMON_HOME=c:\opt\hadoop-3.2.2
set HADOOP_HDFS_HOME=c:\opt\hadoop-3.2.2
set HADOOP_YARN_HOME=c:\opt\hadoop-3.2.2
set PATH=%HADOOP_HOME%\bin;%HADOOP_HOME%\sbin;%PATH%
```

6. Edit the following Hadoop configuration files with the following given content:

map-red.xml

```<?xml version="1.0"?>```
 ```<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>```
 ```<configuration>```
 ``` <property>```
 ```   <name>mapreduce.framework.name</name>```
 ```   <value>yarn</value>```
 ```   </property>```
 ```</configuration>```

hdfs-site.xml

```<?xml version="1.0" encoding="UTF-8"?>```
 ```<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>```
 ```<configuration>```
 ```   <property>```
 ```   <name>dfs.replication</name>```
 ```   <value>1</value>```
 ```   </property>```
 ```   <property>```
 ```   <name>dfs.permission</name>```
 ```   <value>false</value>```
 ```   </property>```
 ```   <property>```
 ```   <name>dfs.namenode.name.dir</name>```
 ```   <value>file:///e:/var/big.data/tmp/namenode</value>```
 ```   </property>```
 ```   <property>```
 ```   <name>dfs.datanode.data.dir</name>```
 ```   <value>file:///e:/var/big.data/tmp/datanode</value>```

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```
        </property>
</configuration>
```

core-site.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<configuration>
   <property>
    <name>fs.default.name</name>
    <value>hdfs://localhost:9000</value>
   </property>
</configuration>
```
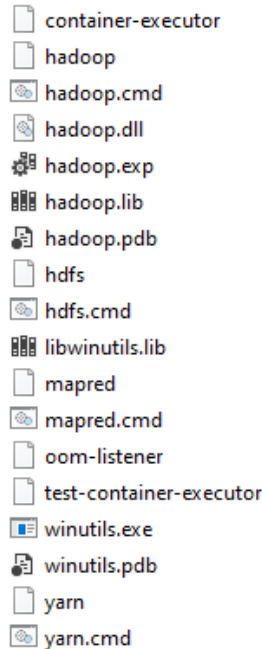
yarn-site.xml

```
<?xml version="1.0"?>
<configuration>
   <property>
    <name>yarn.nodemanager.aux-services</name>
    <value>mapreduce_shuffle</value>
   </property>
   <property>
    <name>yarn.nodemanager.auxservices.mapreduce.shuffle.class</name>
    <value>org.apache.hadoop.mapred.ShuffleHandler</value>
   </property>
</configuration>
```

7. Download the **WinUtils for Hadoop 3.2** from the following url:
   https://courseware.deepcloudlabs.com/softtech/dcl700/lab-files/winutils-for-hadoop-3.2.zip
8. Unzip the file **winutils-for-hadoop-3.2.zip** to `c:\opt\hadoop-3.2.2\bin`

```
container-executor
hadoop
hadoop.cmd
hadoop.dll
hadoop.exp
hadoop.lib
hadoop.pdb
hdfs
hdfs.cmd
libwinutils.lib
mapred
mapred.cmd
oom-listener
test-container-executor
winutils.exe
winutils.pdb
yarn
yarn.cmd
```

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9. Run the `cmd` as Administrator
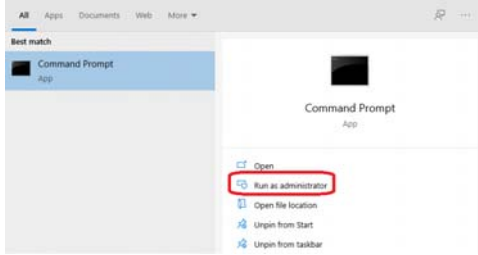
10. Run the **setenv.bat**
11. Format the **namenode**
    ```
    hdfs namenode -format
    ```
12. Start the hdfs
    ```
    start-dfs
    ```

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13. Start the yarn

start-yarn