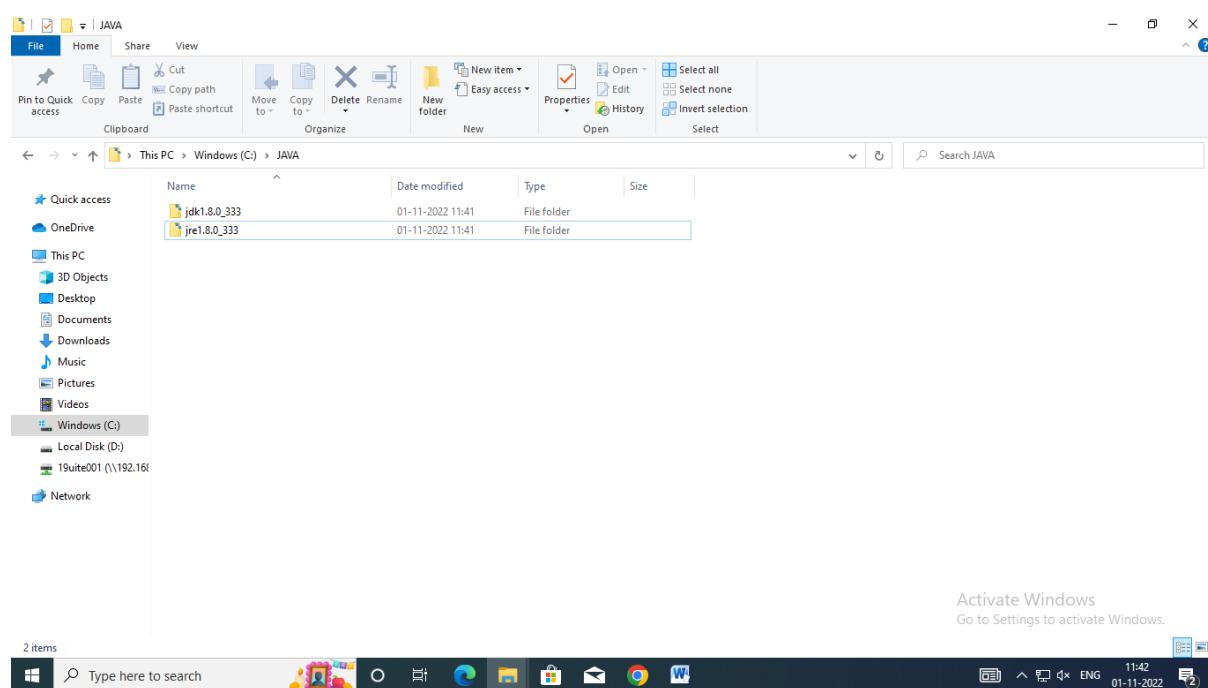
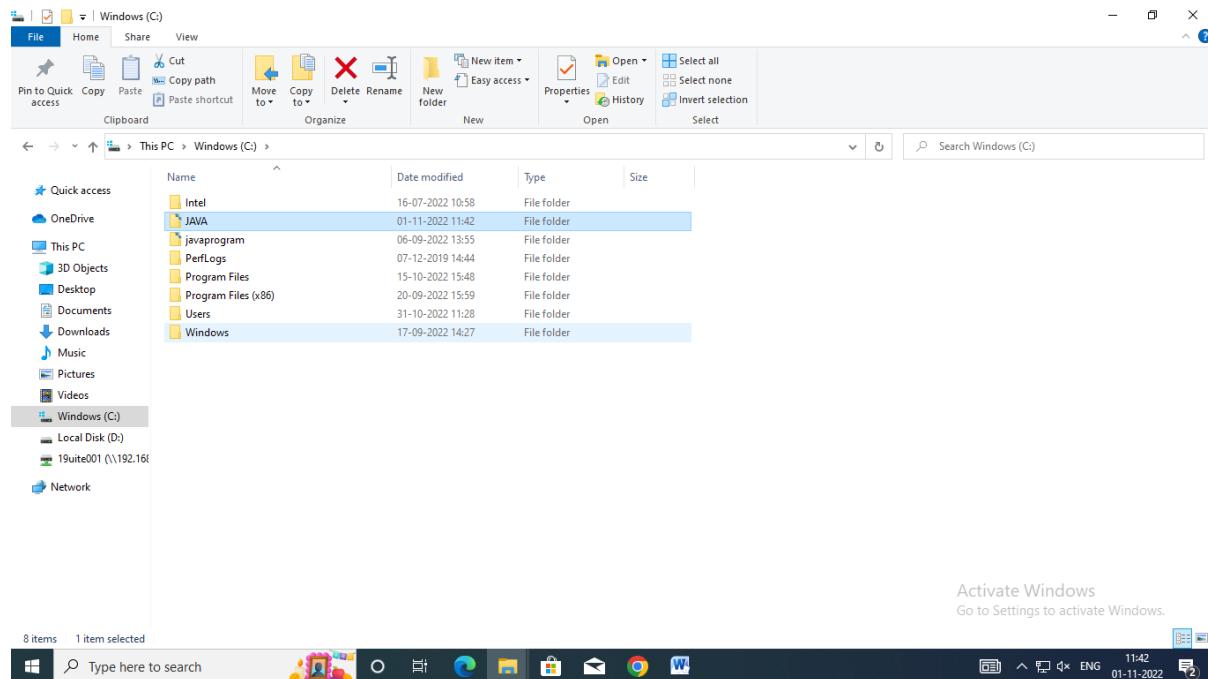


## Installation of Single Node Hadoop Cluster

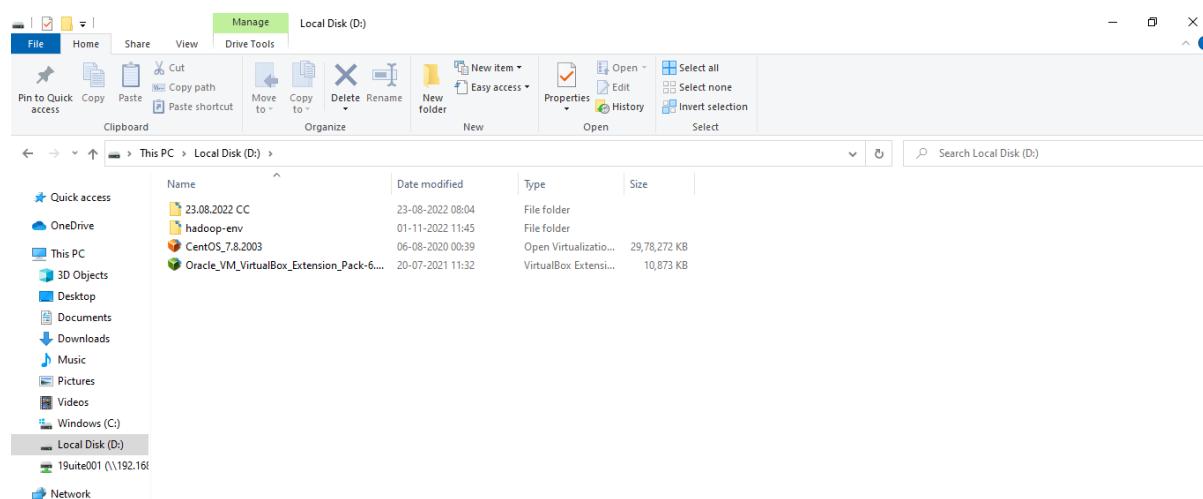


Name : ANANTHAN C P

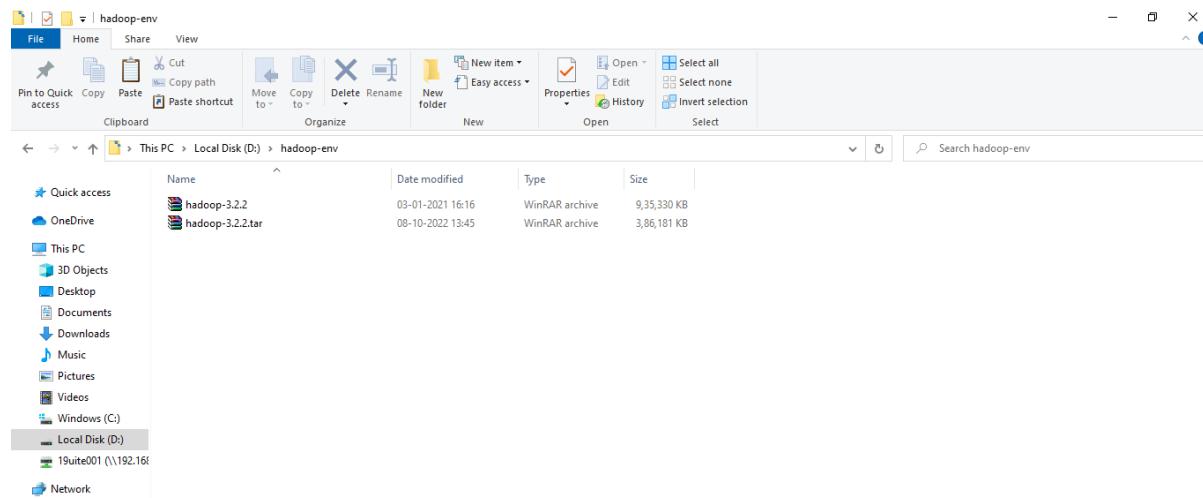
ROLL NO : 19UITE017

Ex. No : 09

## Installation of Single Node Hadoop Cluster



Activate Windows  
Go to Settings to activate Windows.



Activate Windows  
Go to Settings to activate Windows.

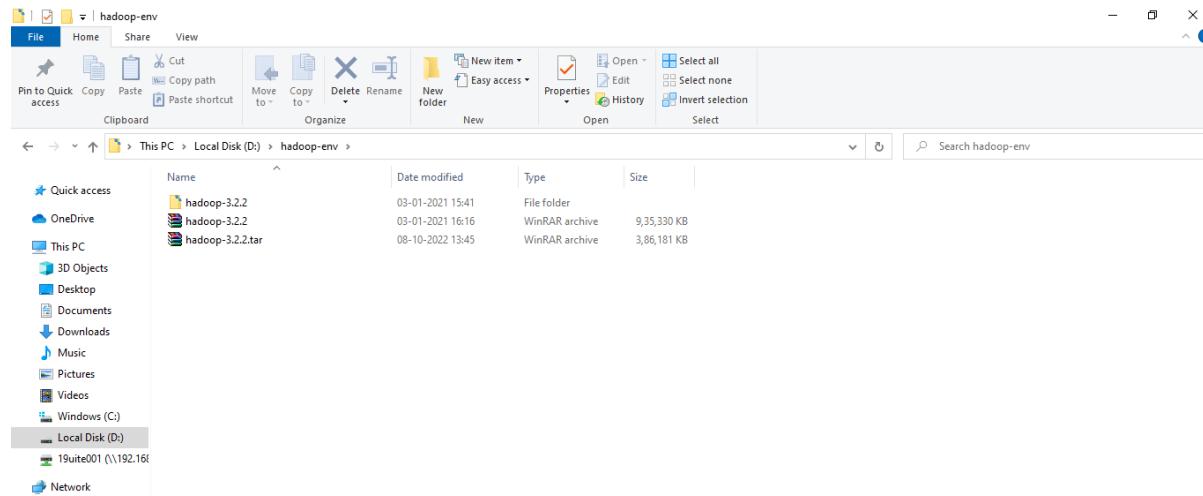
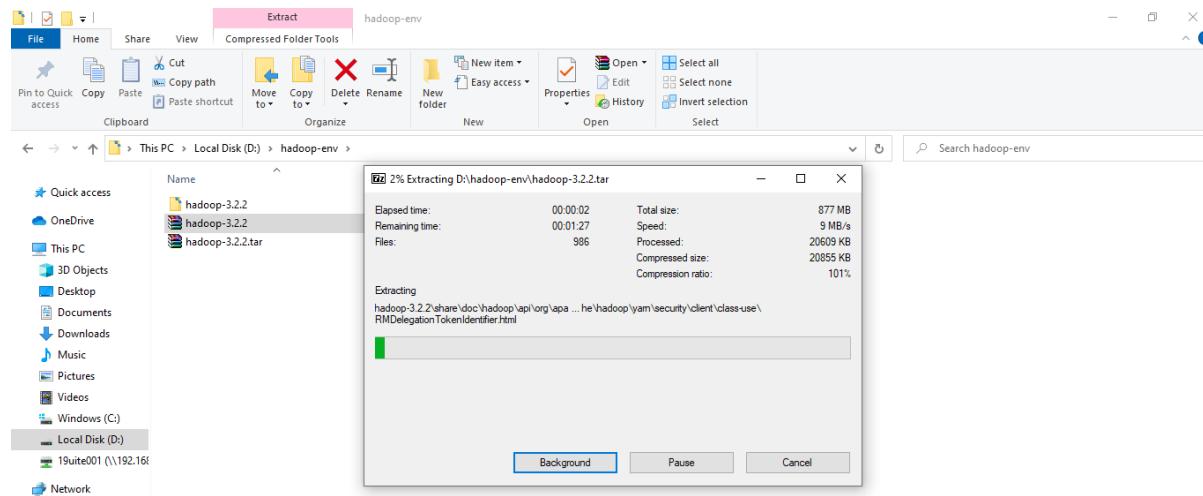


Name : ANANTHAN C P

Ex. No : 09

ROLL NO : 19UITE017

## Installation of Single Node Hadoop Cluster

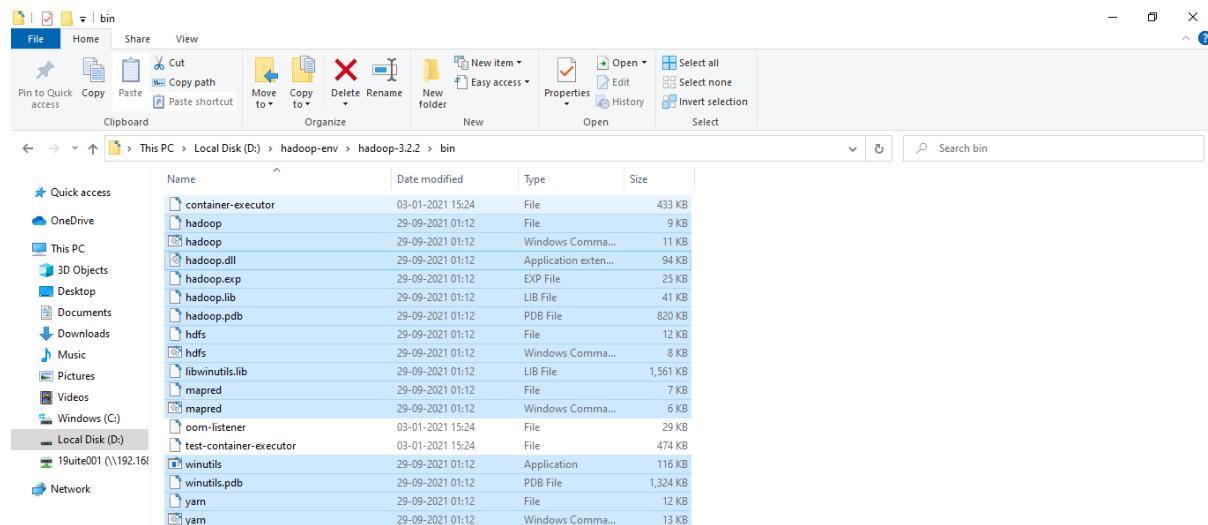
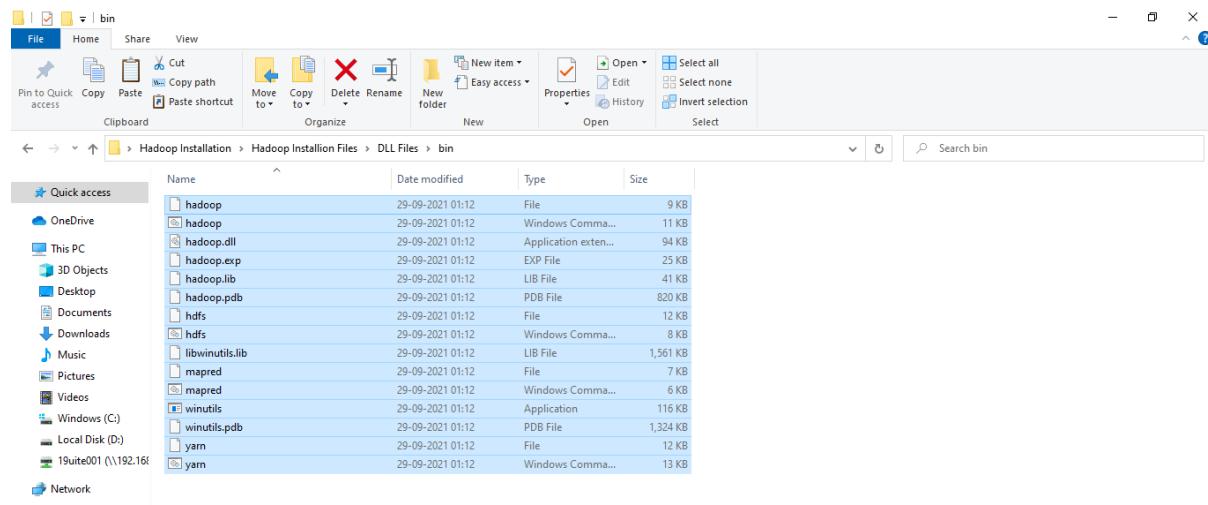


Name : ANANTHAN C P

ROLL NO : 19UITE017

Ex. No : 09

## Installation of Single Node Hadoop Cluster

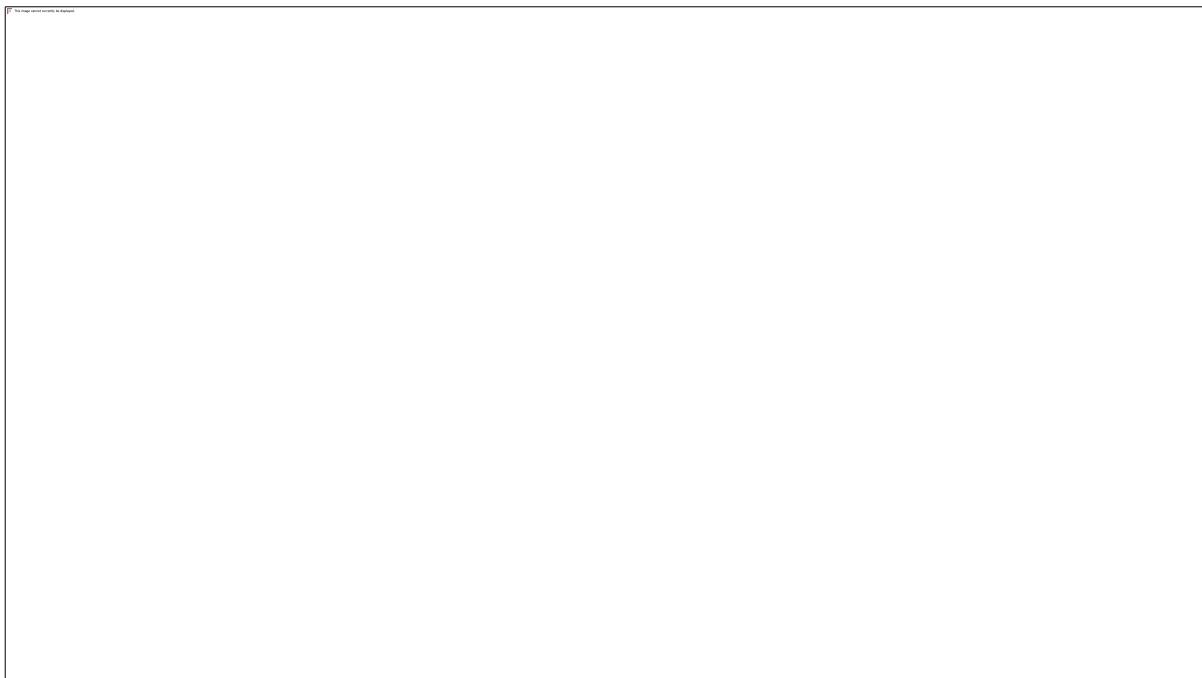
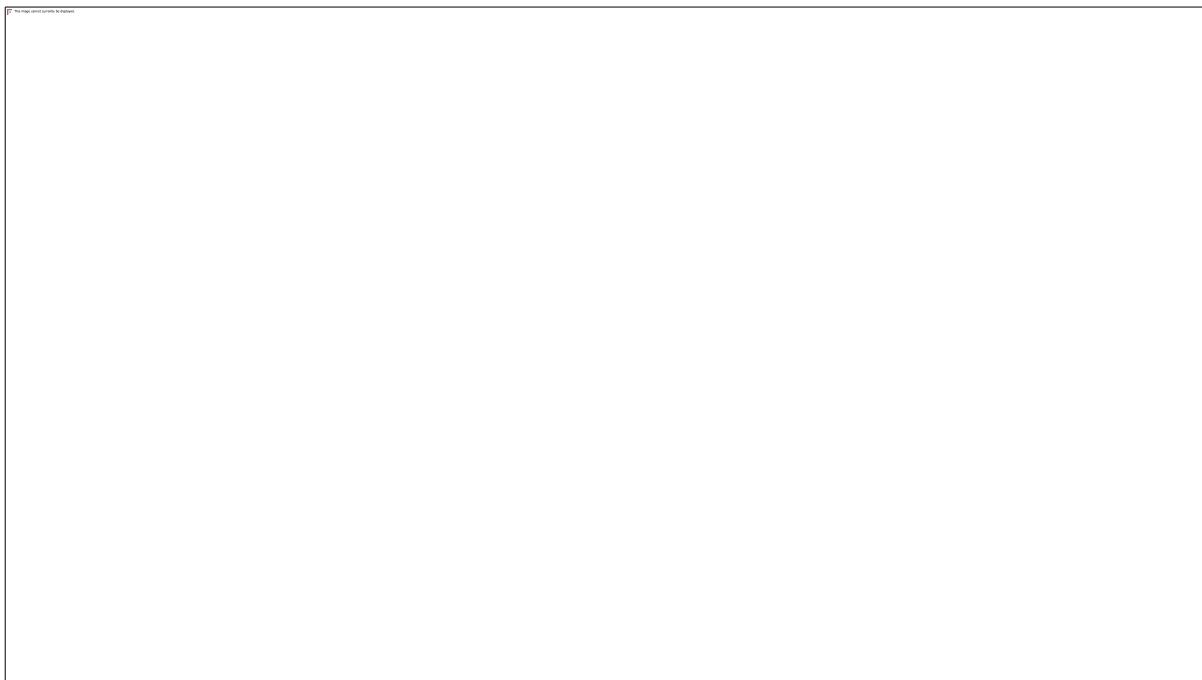


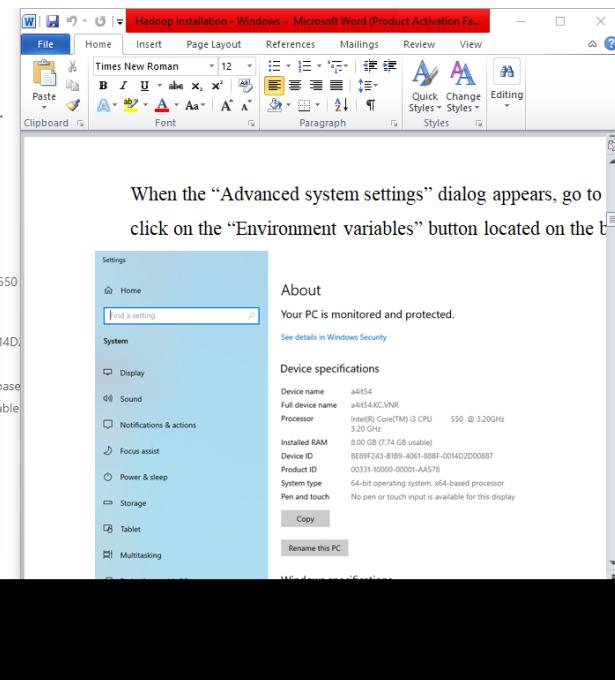
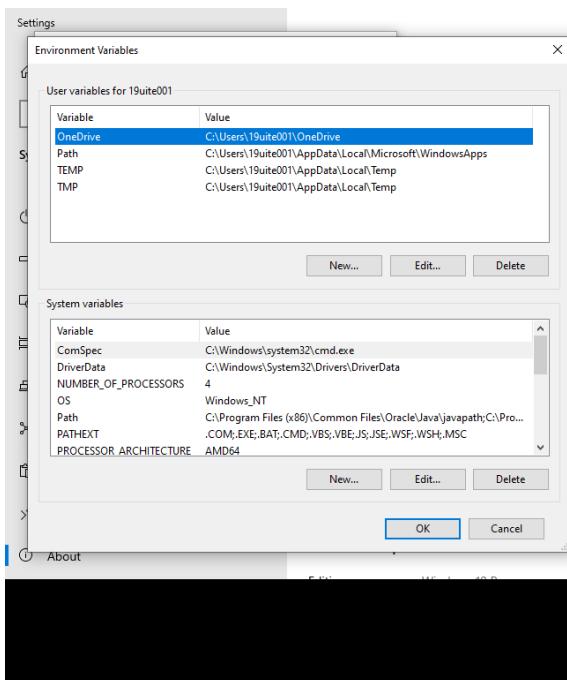
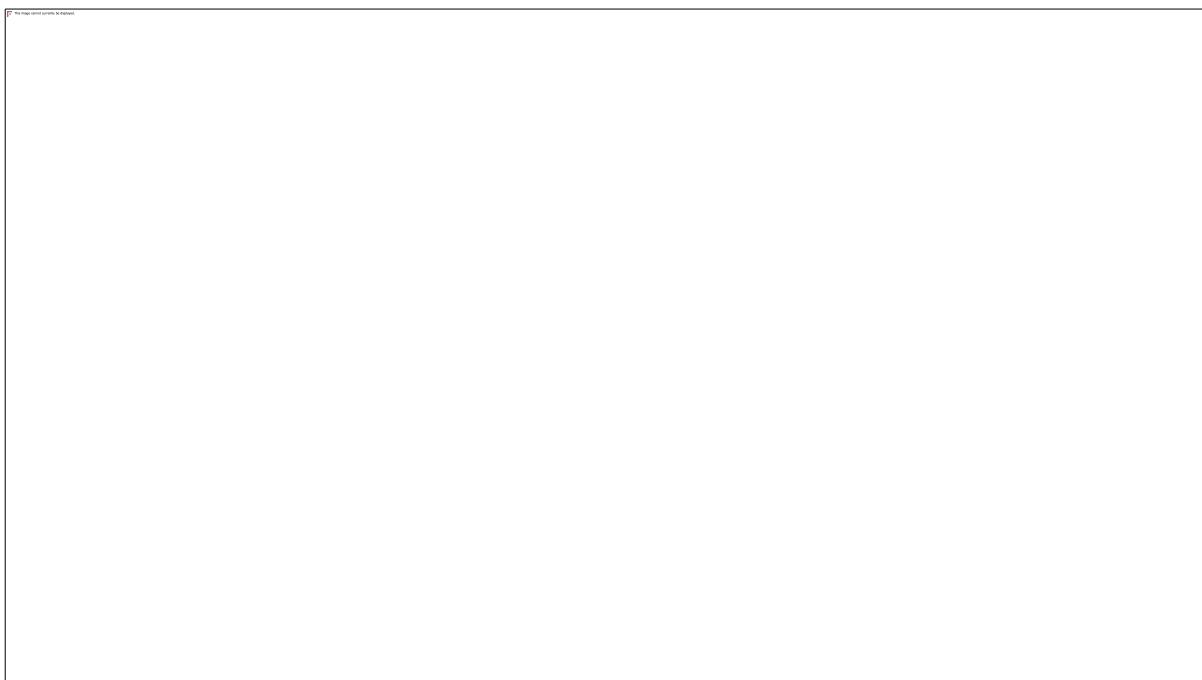
**Name : ANANTHAN C P**

**Ex. No : 09**

**ROLL NO : 19UITE017**

**Installation of Single Node Hadoop Cluster**



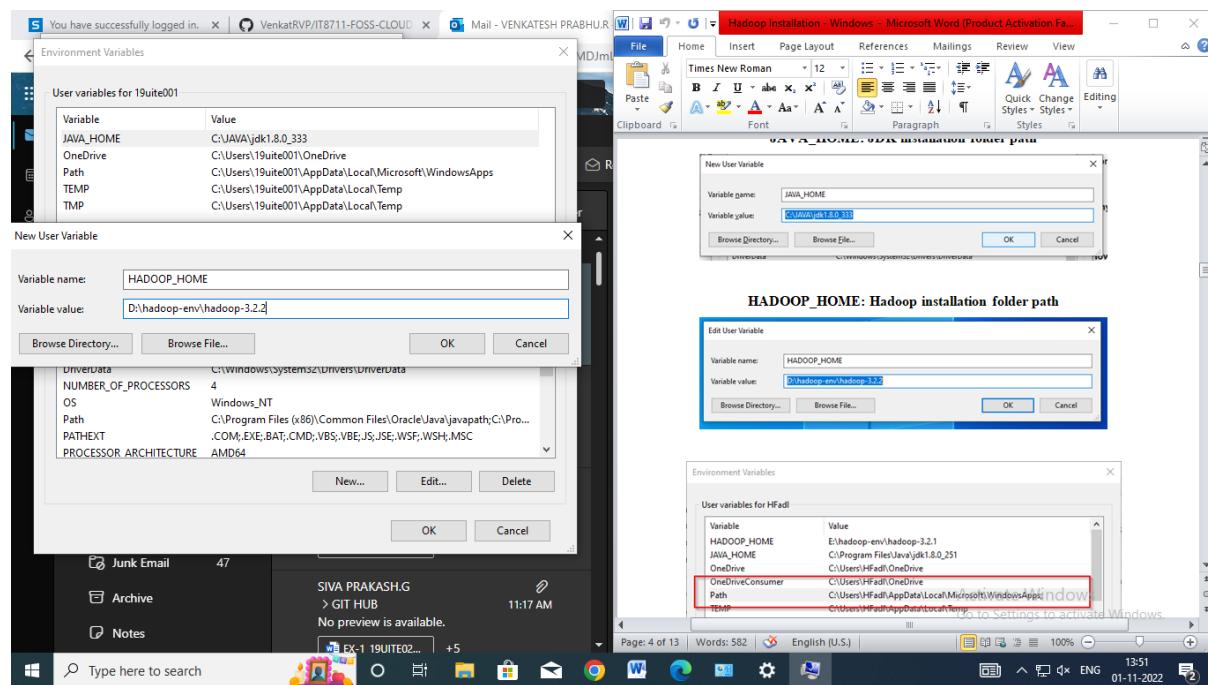
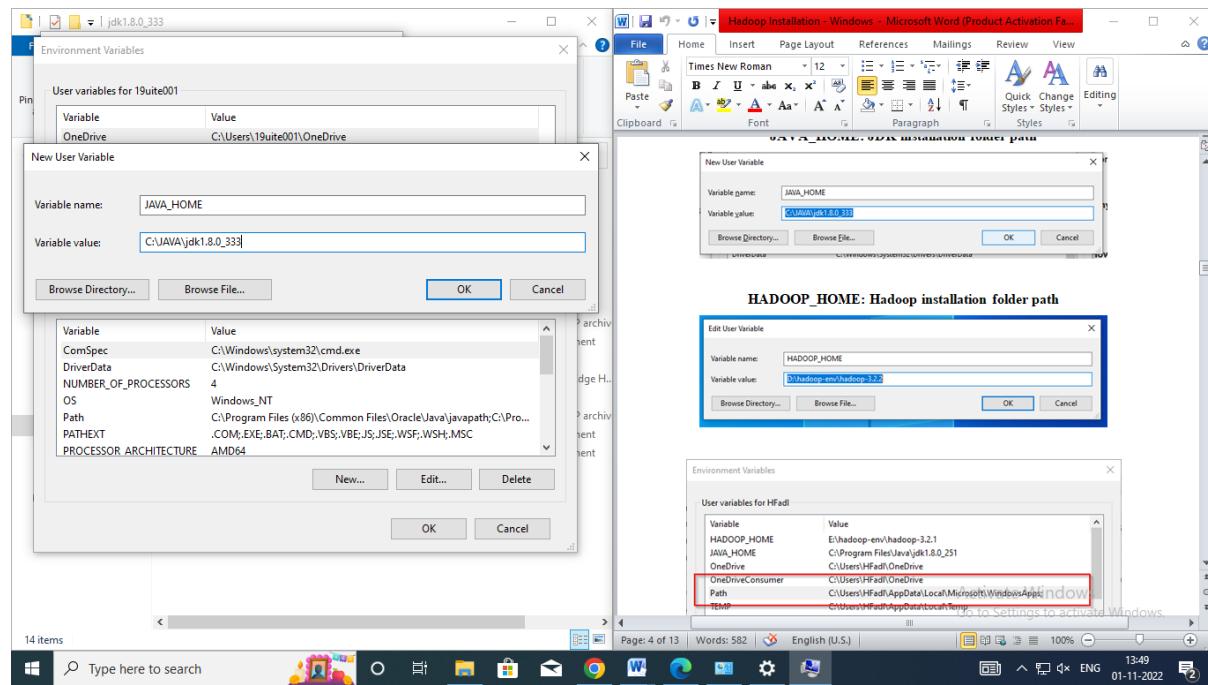
**Installation of Single Node Hadoop Cluster**

Name : ANANTHAN C P

Ex. No : 09

ROLL NO : 19UITE017

### Installation of Single Node Hadoop Cluster

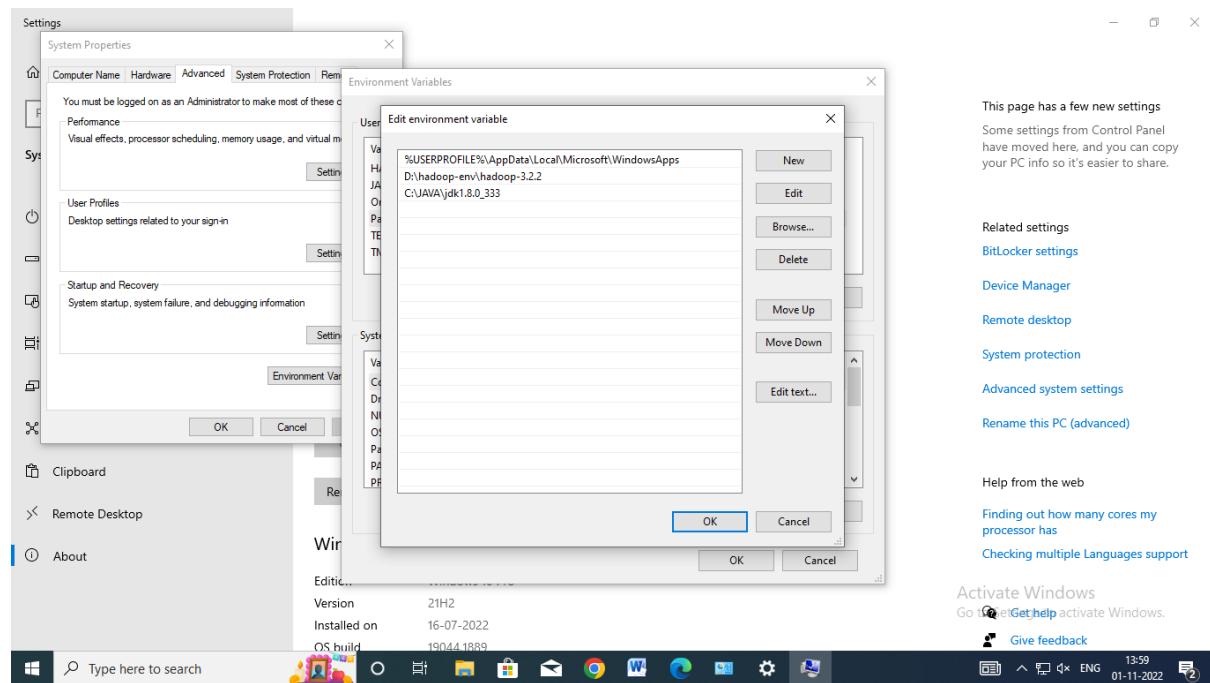
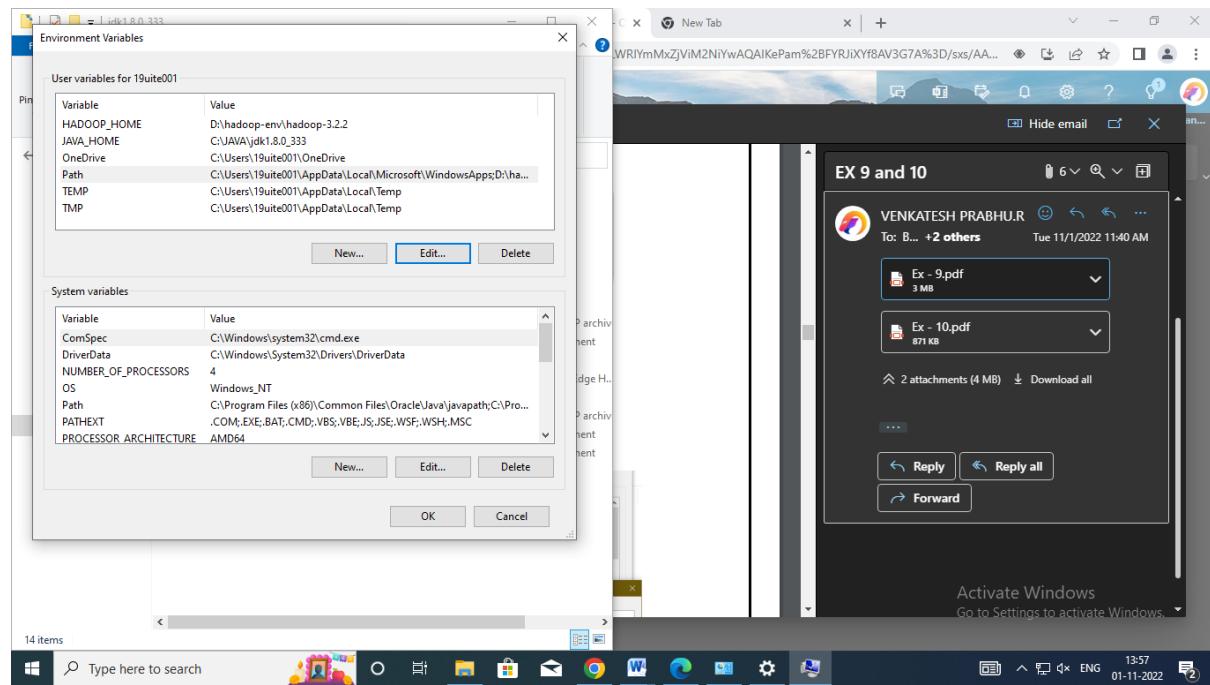


Name : ANANTHAN C P

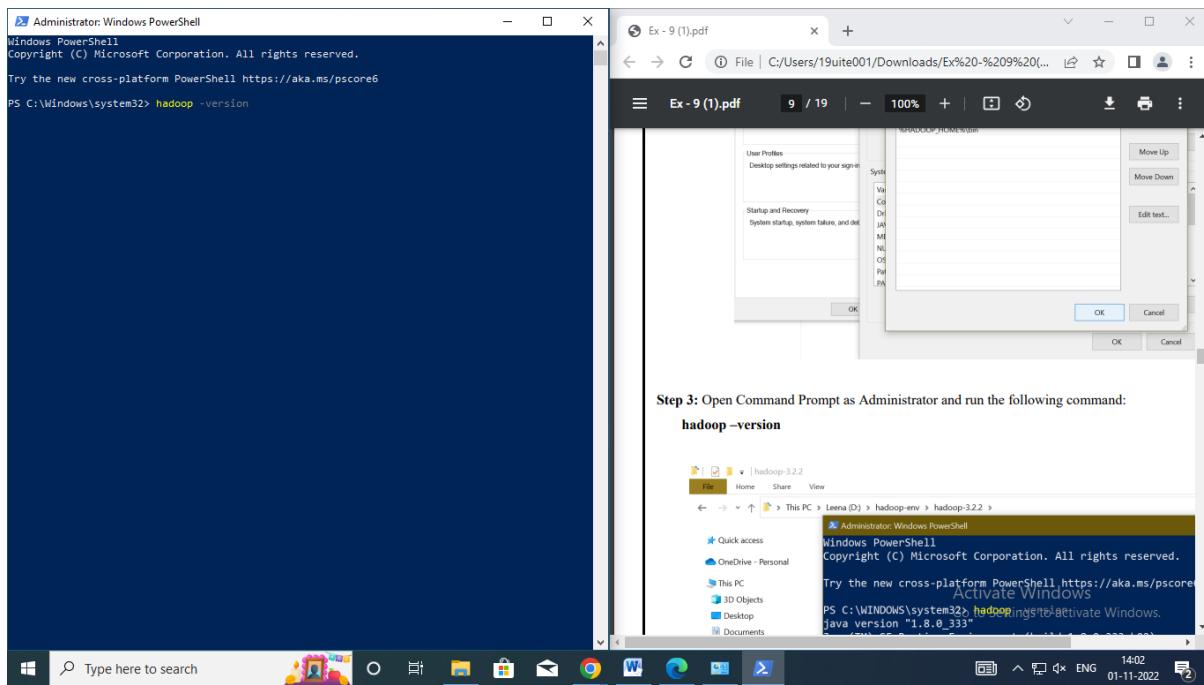
Ex. No : 09

ROLL NO : 19UITE017

## Installation of Single Node Hadoop Cluster

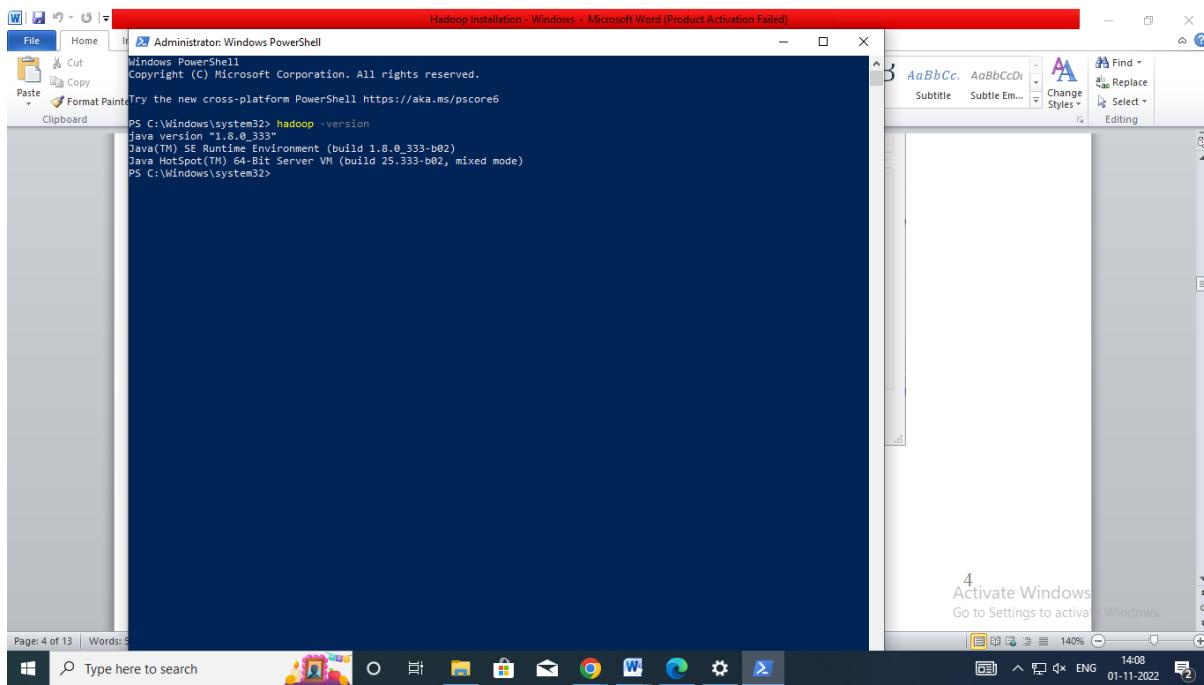


## Installation of Single Node Hadoop Cluster

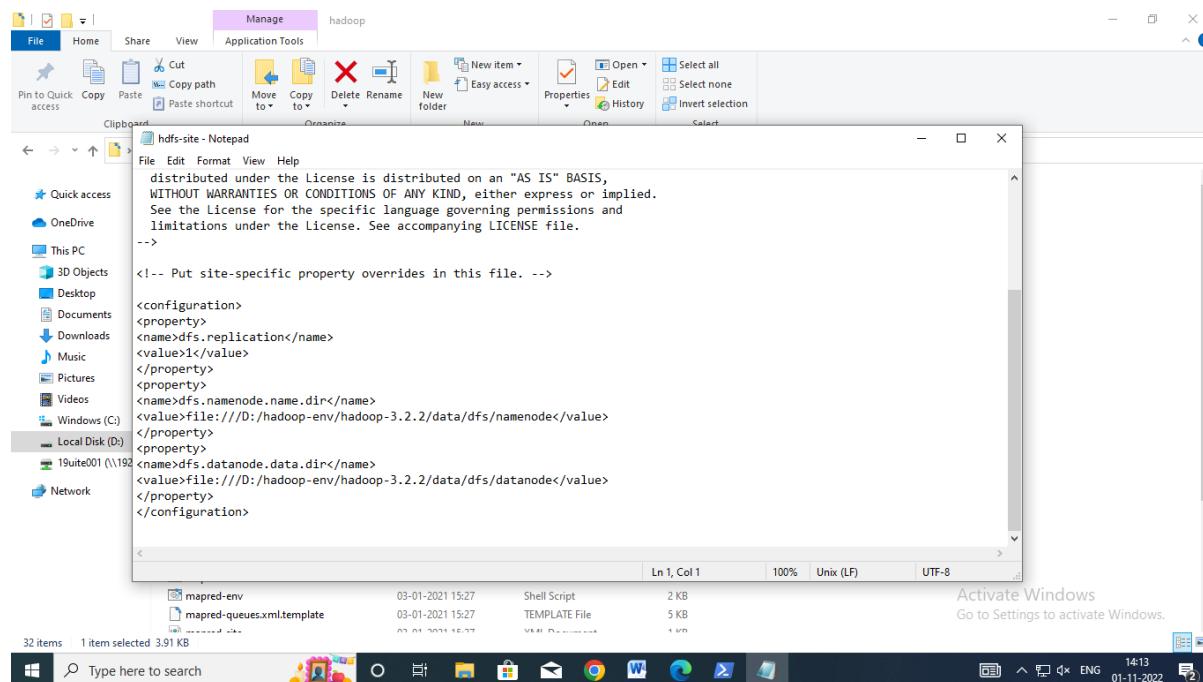
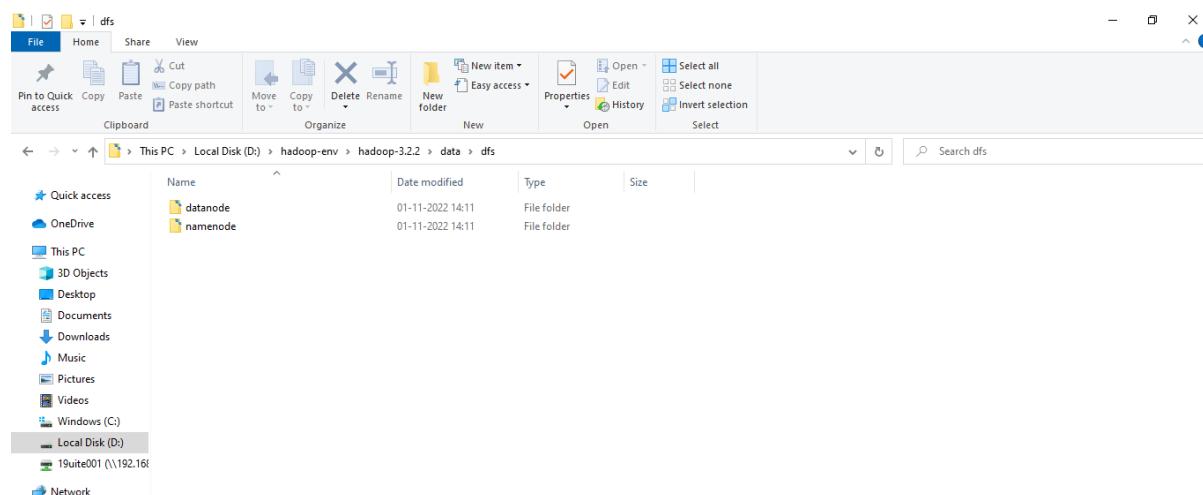


Step 3: Open Command Prompt as Administrator and run the following command:

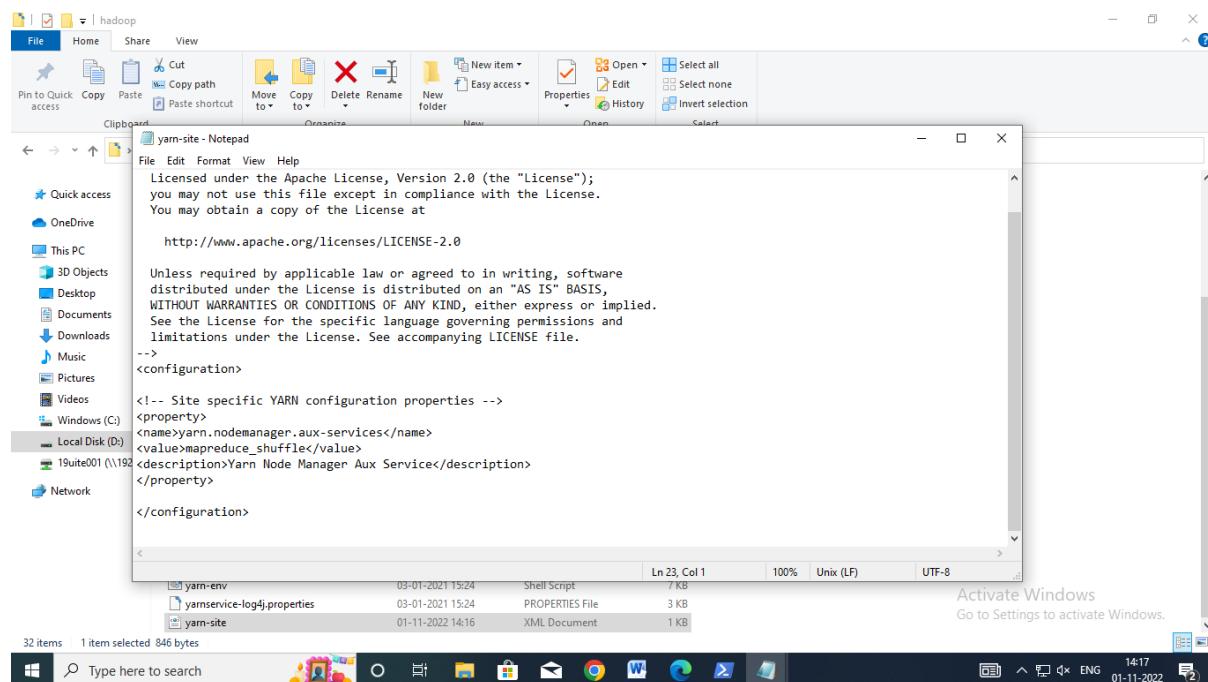
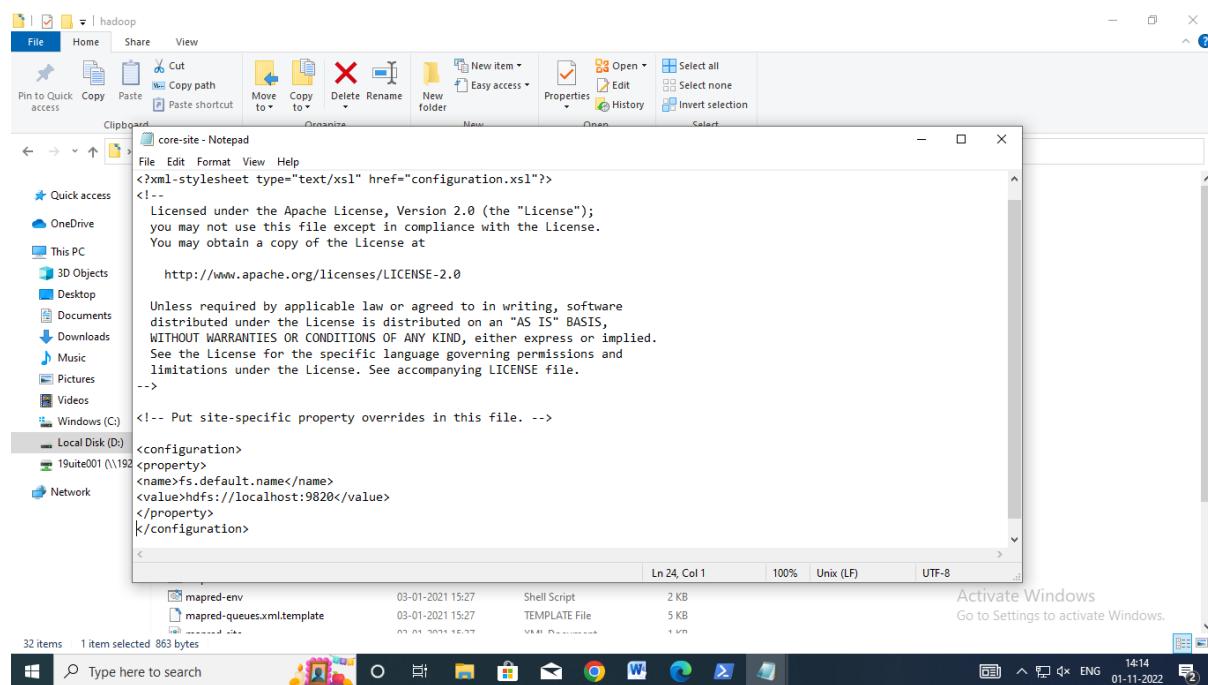
```
hadoop -version
```



## Installation of Single Node Hadoop Cluster



## Installation of Single Node Hadoop Cluster



## Installation of Single Node Hadoop Cluster

```

Administrator: Windows PowerShell
PS C:\Windows\system32> 
2022-11-01 14:17:54.708 INFO blockmanagement.BlockManager: maxReplication          = 512
2022-11-01 14:17:59.797 INFO blockmanagement.BlockManager: maxReplicationStreams      = 1
2022-11-01 14:17:59.797 INFO blockmanagement.BlockManager: maxReplicationStreams      = 2
2022-11-01 14:17:59.798 INFO blockmanagement.BlockManager: redundancyRecheckInterval    = 3000ms
2022-11-01 14:17:59.798 INFO blockmanagement.BlockManager: encryptDataTransfer          = false
2022-11-01 14:17:59.918 INFO namenode.FSDirectory: GLOBAL serial map: bits=29 maxEntries=536870911
2022-11-01 14:17:59.918 INFO namenode.FSDirectory: USER serial map: bits=24 maxEntries=16777215
2022-11-01 14:17:59.920 INFO namenode.FSDirectory: GROUP serial map: bits=24 maxEntries=16777215
2022-11-01 14:17:59.920 INFO namenode.FSDirectory: XATTR serial map: bits=24 maxEntries=16777215
2022-11-01 14:17:59.928 INFO util.GSet: Computing capacity for map INodeMap
2022-11-01 14:17:59.978 INFO util.GSet: VM type       = 64-bit
2022-11-01 14:17:59.980 INFO util.GSet: 1.0% max memory 889 MB = 8.9 MB
2022-11-01 14:17:59.981 INFO util.GSet: capacity      = 2^20 = 1048576 entries
2022-11-01 14:17:51.003 INFO namenode.FSDirectory: ACLs enabled? false
2022-11-01 14:17:51.004 INFO namenode.FSDirectory: POSIX ACL inheritance enabled? true
2022-11-01 14:17:51.006 INFO namenode.Namenode: Caching file names occurring more than 10 times
2022-11-01 14:17:51.021 INFO snapshot.SnapshotManager: Loaded config capture.openFiles: false, skipCaptureAccessTimeOnlyChange: false, snapshotDiffAllowSnapRootDescendant: true, maxSnapshotLimit: 65536
2022-11-01 14:17:51.025 INFO snapshot.SnapshotManager: Skiplist is disabled
2022-11-01 14:17:51.034 INFO util.GSet: Computing capacity for map cachedBlocks
2022-11-01 14:17:51.034 INFO util.GSet: VM type       = 64-bit
2022-11-01 14:17:51.035 INFO util.GSet: 0.25% max memory 889 MB = 2.2 MB
2022-11-01 14:17:51.036 INFO util.GSet: capacity      = 2^18 = 262144 entries
2022-11-01 14:17:51.039 INFO metrics.TopMetrics: NNTop conf: ofs.namenode.top.window.num.buckets = 10
2022-11-01 14:17:51.039 INFO metrics.TopMetrics: NNTop conf: ofs.namenode.top.window.users = 10
2022-11-01 14:17:51.094 INFO metrics.TopMetrics: MNTop conf: dfs.namenode.ttl.windows.minutes = 1,5,25
2022-11-01 14:17:51.104 INFO namenode.FSNamesystem: Retry cache on namenode is enabled
2022-11-01 14:17:51.104 INFO namenode.FSNamesystem: Retry cache will use 0.03 of total heap and retry cache entry expiry time is 600000 millis
2022-11-01 14:17:51.119 INFO util.GSet: Computing capacity for map NameNodeRetryCache
2022-11-01 14:17:51.119 INFO util.GSet: VM type       = 64-bit
2022-11-01 14:17:51.121 INFO util.GSet: capacity      = 2^15 = 32768 entries
2022-11-01 14:17:51.121 INFO util.GSet: 0.02999999939447746% max memory 889 MB = 273.1 KB
2022-11-01 14:17:56.393 INFO common.Storage: Storage directory D:\hadoop\hadoop-3.2.2\data\dfs\namenode has been successfully formatted.
2022-11-01 14:17:56.393 INFO common.Storage: FSImageFormatProtobuf: Saving image file D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\fsimage.ckpt_00000000000000000000 of size 401 bytes saved in 0 seconds.
2022-11-01 14:17:56.394 INFO namenode.NNStorageRetentionManager: Going to retain 1 images with txid > 0
2022-11-01 14:17:56.539 INFO namenode.FSImage: FSImage clean checkpoint: txid=0 when meet shutdown.
2022-11-01 14:17:56.540 INFO namenode.NameNode: SHUTDOWN_MSG:
*****SHUTDOWN MSG: Shutting down NameNode at A41744/192.168.56.1
*****
```

Activate Windows  
Go to Settings to activate Windows.

```

Apache Hadoop Distribution - hadoop_namenode
PS C:\Windows\system32> 
2022-11-01 14:29:54.944 INFO namenode.FSDirectory: Initializing quota with 4 threads
(s)
2022-11-01 14:29:54.954 INFO namenode.FSDirectory: Quota initialization completed in 8 milliseconds
name space=1
storage types=RAM_DISK=0, SSD=0, DISK=0, ARCHIVE=0, PROVIDED=0
2022-11-01 14:29:54.960 INFO blockmanagement.CacheReplicationMonitor: Starting CacheReplicationMonitor with interval 30000 milliseconds
2022-11-01 14:29:59.670 INFO hdfs.StateChange: BLOCK* registerDatanode: from DatanodeRegistration(127.0.0.1:9866, datanodeUuid=4b3271a4-dd5a-4845-bd48-257125cab8a1, infoPort=9864, infoSecurePort=0, ipcPort=9867, storageInfo=lv=-57;cid=CID-77652b81-ca2c-4757-a852-7e042de6e2c5;nsid=819071654;c=1667293173677) storage 4b3271a4-dd5a-4845-bd48-257125cab8a1
2022-11-01 14:29:59.676 INFO net.NetworkTopology: Adding a new node: /default-rack/127.0.0.1:9866
2022-11-01 14:29:59.678 INFO blockmanagement.BlockReportLeaseManager: Registered DN 4b3271a4-dd5a-4845-bd48-257125cab8a1 (127.0.0.1:9866).
2022-11-01 14:30:00.032 INFO blockmanagement.DatanodeDescriptor: Adding new storage ID DS-542e59da-059f-488c-9bd7-8285caa4b561 for DN 127.0.0.1:9866
2022-11-01 14:30:00.145 INFO BlockStateChange: BLOCK* processReport 0x3a72988d42a637ad: Processing first storage report for DS-542e59da-059f-488c-9bd7-8285caa4b561 from datanode 4b3271a4-dd5a-4845-bd48-257125cab8a1
2022-11-01 14:30:00.149 INFO BlockStateChange: BLOCK* processReport 0x3a72988d42a637ad: from storage DS-542e59da-059f-488c-9bd7-8285caa4b561 node DatanodeRegistration(127.0.0.1:9866, datanodeUuid=4b3271a4-dd5a-4845-bd48-257125cab8a1, infoPort=9864, infoSecurePort=0, ipcPort=9867, storageInfo=lv=-57;cid=CID-77652b81-ca2c-4757-a852-7e042de6e2c5;nsid=819071654;c=1667293173677), blocks: 0, hasStaleStorage: false, processing time: 4 msecs, invalidatedBlocks: 0

Apache Hadoop Distribution - hadoop_datanode
D:\hadoop-env\hadoop-3.2.2\data\dfs\datanode
2022-11-01 14:29:59.483 INFO checker.DatasetVolumeChecker: Scheduled health check for volume D:\hadoop-env\hadoop-3.2.2\data\dfs\datanode
2022-11-01 14:29:59.492 INFO datanode.VolumeScanner: Now scanning bpid BP-1378187979-192.168.56.1-1667293173677 on volume D:\hadoop-env\hadoop-3.2.2\data\dfs\datanode
2022-11-01 14:29:59.496 INFO datanode.VolumeScanner: VolumeScanner(D:\hadoop-env\hadoop-3.2.2\data\dfs\datanode, DS-542e59da-059f-488c-9bd7-8285caa4b561): finished scanning block pool BP-1378187979-192.168.56.1-1667293173677
2022-11-01 14:29:59.544 INFO datanode.VolumeScanner: VolumeScanner(D:\hadoop-env\hadoop-3.2.2\data\dfs\datanode, DS-542e59da-059f-488c-9bd7-8285caa4b561): no suitable block pools found to scan. Waiting 1814399947 ms.
2022-11-01 14:29:59.552 INFO datanode.DirectoryScanner: Periodic Directory Tree Verification scan starting at 1/11/22 6:08 PM with interval of 2160000ms
2022-11-01 14:29:59.571 INFO datanode.DataNode: Block pool BP-1378187979-192.168.56.1-1667293173677 (Datanode Uuid 4b3271a4-dd5a-4845-bd48-257125cab8a1) service to localhost/127.0.0.1:9828 beginning handshake with NN
2022-11-01 14:29:59.707 INFO datanode.DataNode: Block pool Block pool BP-1378187979-192.168.56.1-1667293173677 (Datanode Uuid 4b3271a4-dd5a-4845-bd48-257125cab8a1) service to localhost/127.0.0.1:9820 successfully registered with NN
2022-11-01 14:29:59.788 INFO datanode.DataNode: For namenode localhost/127.0.0.1:9820 using BLOCKREPORT_INTERVAL of 2160000msec CACHEREPORT_INTERVAL of 1000msec Initial delay: 0msec; heartBeatInterval=3000
2022-11-01 14:30:00.313 INFO datanode.DataNode: Successfully sent block report 0x3a72988d42a637ad, containing 1 storage report(s), of which we sent 1. The reports had 0 total blocks and used 1 RPC(s). This took 11 msec to generate and 203 msecs for RPC and NN processing. Got back one command: FinalizeCommand/S.
2022-11-01 14:30:00.313 INFO datanode.DataNode: Got finalize command for block pool BP-1378187979-192.168.56.1-1667293173677
```

Activate Windows  
Go to Settings to activate Windows.

## Installation of Single Node Hadoop Cluster

```

Administrator: Windows PowerShell
[11/01/2022 14:29:24:728] INFO blockmanagement.BlockManager: maxReplicationStreams = 2
[11/01/2022 14:29:24:974] INFO blockmanagement.BlockManager: maxPendingAddNodesInterval = 3000ms
[11/01/2022 14:29:24:974] INFO blockmanagement.BlockManager: encryptDataTransfer = false
[11/01/2022 14:29:24:975] INFO blockmanagement.BlockManager: maxNumBlocksToLog = 1000
[11/01/2022 14:29:25:020] INFO namenode.FSDirectory: GLOBAL serial map: bits=24 maxEntries=536870911
[11/01/2022 14:29:25:020] INFO namenode.FSDirectory: USER serial map: bits=24 maxEntries=16777215
[11/01/2022 14:29:25:023] INFO namenode.FSDirectory: GROUP serial map: bits=24 maxEntries=16777215
[11/01/2022 14:29:25:025] INFO namenode.FSDirectory: XATTR serial map: bits=24 maxEntries=16777215
[11/01/2022 14:29:25:053] INFO util.GSet: Computing capacity for map INodeMap
[11/01/2022 14:29:25:054] INFO util.GSet: 1.0% max memory 889 MB = 8.9 MB
[11/01/2022 14:29:25:058] INFO util.GSet: capacity = 2^28 = 1048576 entries
[11/01/2022 14:29:25:088] INFO namenode.FSDirectory: ACLs enabled? false
[11/01/2022 14:29:25:088] INFO namenode.FSDirectory: POSIX ACL inheritance enabled? true
[11/01/2022 14:29:25:091] INFO namenode.FSDirectory: XAttrs enabled? true
[11/01/2022 14:29:25:093] INFO namenode.NameNode: Caching file names occurring more than 10 times
[11/01/2022 14:29:25:104] INFO snapshot.SnapshotManager: Loaded config captureOpenFiles: false, skipCaptureAccessTimeOnlyChange: false, snapshotDiffAllowSnapRootDescendant: true, maxSnapshotLimit: 65536
[11/01/2022 14:29:25:109] INFO snapshot.SnapshotManager: SkipList is disabled
[11/01/2022 14:29:25:116] INFO util.GSet: Computing capacity for map cachedBlocks
[11/01/2022 14:29:25:116] INFO util.GSet: VM type = 64-bit
[11/01/2022 14:29:25:118] INFO util.GSet: 0.25% max memory 889 MB = 2.2 MB
[11/01/2022 14:29:25:119] INFO util.GSet: capacity = 2^18 = 262144 entries
[11/01/2022 14:29:25:138] INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.num.buckets = 10
[11/01/2022 14:29:25:138] INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.num.users = 10
[11/01/2022 14:29:25:140] INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.windows.minutes = 1,5,25
[11/01/2022 14:29:25:140] INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.windows.seconds = 0,1,5,25
[11/01/2022 14:29:25:149] INFO namenode.FSNamingSystem: Retrying the write lock 0.03% of total heap and retry cache entry expiry time is 600000 millis
[11/01/2022 14:29:25:155] INFO util.GSet: Computing capacity for map NameNodeRetryCache
[11/01/2022 14:29:25:155] INFO util.GSet: VM type = 64-bit
[11/01/2022 14:29:25:157] INFO util.GSet: 0.29999999329447746% max memory 889 MB = 273.1 KB
[11/01/2022 14:29:25:157] INFO util.GSet: capacity = 2^15 = 32768 entries
Re-format file system in Storage Directory root= D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode; location= null ? (Y or N) Y
2022-11-01 14:29:33:702 INFO namenode.FSImage: Allocated new BlockPoolId: BP-1378187979-192.168.56.1-166729573677
2022-11-01 14:29:33:702 INFO namenode.FSImage: CurrentFsImage: 00000000000000000000.msd, D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\txnid, D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\VERSION
2022-11-01 14:29:33:805 INFO common.Storage: Storage directory D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current has been successfully formatted.
2022-11-01 14:29:34:029 INFO namenode.FSImageFormatProtobuf: Saving image file D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\fsimage.cptk_00000000000000000000 using no compression
2022-11-01 14:29:34:029 INFO namenode.FSImageFormatProtobuf: Image file D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\fsimage.cptk_00000000000000000000 of size 404 bytes saved in 0 seconds.
2022-11-01 14:29:34:067 INFO namenode.NNSTorageRetentionManager: Going to retain 1 images with txid >= 0
2022-11-01 14:29:34:077 INFO namenode.FSImage: FSImageSaver clean checkpoint: txid=0 when meet shutdown.
2022-11-01 14:29:34:077 INFO namenode.FSImage: FSImageSaver clean checkpoint: txid=0 when meet shutdown.
*****
SHUTDOWN MSG: Shutting down NameNode at AAI744/192.168.56.1
*****
PS D:\hadoop-env\hadoop-3.2.2\bin> ./start-dfs.cmd
PS D:\hadoop-env\hadoop-3.2.2\bin> ./start-yarn.cmd
starting yarn daemons
PS D:\hadoop-env\hadoop-3.2.2\bin>

```

Activate Windows  
Go to Settings to activate Windows.

14:33  
01-11-2022

```

Apache Hadoop Distribution - yarn resourcemanager
[11/01/2022 14:33:17:342] INFO conf.Configuration: dynamic-resources.xml not found
2022-11-01 14:33:17,347 INFO resourcemanager.AMSProcessingChain: Initializing AMS Processing chain. Root Processor=[org.apache.hadoop.yarn.server.resourcemanager.DefaultAMSPProcessor].
2022-11-01 14:33:17,350 INFO resourcemanager.ApplicationMasterService: disabled placement handler will be used, all scheduling requests will be rejected.
2022-11-01 14:33:17,353 INFO resourcemanager.AMSProcessingChain: Adding [org.apache.hadoop.yarn.server.resourcemanager.scheduler.constraint.processor.DisabledPlacementProcessor] tp top of AMS Processing chain.
2022-11-01 14:33:17,364 INFO resourcemanager.ResourceManager: TimelineServicePublisher is not configured
2022-11-01 14:33:17,458 INFO util.log: Logging initialized @5556ms to org.eclipse.jetty.util.log.Slf4jLog
2022-11-01 14:33:22,136 INFO server.AuthenticationFilter: Unable to initialize FileSignerSecretProvider, falling back to use random secrets.
2022-11-01 14:33:22,145 INFO http.HttpRequestLog: Http request log for http.request.s.resourcemanager is not defined
2022-11-01 14:33:22,159 INFO http.HttpServer2: Added global filter 'safety' (class=org.apache.hadoop.http.HttpServer2$QuotingInputFilter)
2022-11-01 14:33:26,709 INFO http.HttpServer2: Added filter RMAuthenticationFilter (class=org.apache.hadoop.yarn.server.security.http.RMAuthenticationFilter) to context logs
2022-11-01 14:33:26,710 INFO http.HttpServer2: Added filter RMAuthenticationFilter (class=org.apache.hadoop.yarn.server.security.http.RMAuthenticationFilter) to context static
2022-11-01 14:33:26,711 INFO http.HttpServer2: Added filter RMAuthenticationFilter (class=org.apache.hadoop.yarn.server.security.http.RMAuthenticationFilter) to context logs
2022-11-01 14:33:26,712 INFO http.HttpServer2: Added filter static_user_filter (class=org.apache.hadoop.http.lib.StaticUserWebFilter$StaticUserFilter) to context cluster
2022-11-01 14:33:26,713 INFO http.HttpServer2: Added filter static_user_filter (class=org.apache.hadoop.http.lib.StaticUserWebFilter$StaticUserFilter) to context static
2022-11-01 14:33:26,713 INFO http.HttpServer2: Added filter static_user_filter (class=org.apache.hadoop.http.lib.StaticUserWebFilter$StaticUserFilter) to context logs
2022-11-01 14:33:26,720 INFO http.HttpServer2: adding path spec: /cluster/*
2022-11-01 14:33:26,720 INFO http.HttpServer2: adding path spec: /ws/*
2022-11-01 14:33:26,722 INFO http.HttpServer2: adding path spec: /app/*

```

```

Apache Hadoop Distribution - yarn nodemanager
[11/01/2022 14:33:22,283] INFO monitor.ContainersMonitorImpl: Virtual memory check enabled: true
2022-11-01 14:33:22,283 INFO monitor.ContainersMonitorImpl: Elastic memory control enabled: false
2022-11-01 14:33:22,284 INFO monitor.ContainersMonitorImpl: Strict memory control enabled: true
2022-11-01 14:33:22,284 INFO monitor.ContainersMonitorImpl: ContainersMonitor enabled: true
2022-11-01 14:33:22,285 INFO monitor.ContainersMonitorImpl: Container Log Monitor Enabled: false
2022-11-01 14:33:24,337 WARN monitor.ContainersMonitorImpl: NodeManager configured with 8 G physical memory allocated to containers, which is more than 80% of the total physical memory available (7.7 G). Thrashing might happen.
2022-11-01 14:33:24,337 INFO containermanager.ContainerManagerImpl: Not a recoverable state. Nothing to recover.
2022-11-01 14:33:24,375 INFO conf.Configuration: resource-types.xml not found
2022-11-01 14:33:24,376 INFO resource.ResourceUtils: Unable to find 'resource-types.xml'.
2022-11-01 14:33:24,383 INFO conf.Configuration: node-resources.xml not found
2022-11-01 14:33:24,384 INFO resource.ResourceUtils: Unable to find 'node-resources.xml'.
2022-11-01 14:33:24,387 INFO nodemanager.NodeStatusUpdaterImpl: Nodemanager resources is set to: :memory:8192, vcores:8
2022-11-01 14:33:24,992 INFO nodemanager.NodeStatusUpdaterImpl: Initialized nodemanager with :physical-memory:8192 virtual-memory:17204 virtual-cores:8
2022-11-01 14:33:25,328 INFO ipc.CallQueueManager: Using callQueue: class java.util.concurrent.LinkedBlockingQueue, queueCapacity: 2000, scheduler: class org.apache.hadoop.ipc.DefaultPcpScheduler, ipcBackoff: false.
2022-11-01 14:33:25,388 INFO ipc.Server: Starting Socket Reader #1 for port 0
2022-11-01 14:33:25,858 INFO ipc.PcPServerFactoryPBImpl: Adding protocol org.apache.hadoop.yarn.api.ContainerManagementProtocolPB to the server
2022-11-01 14:33:25,870 INFO ipc.Server: IPC Server Responder: starting
2022-11-01 14:33:25,870 INFO ipc.Server: IPC Server listener on 0: starting

```

Activate Windows  
Go to Settings to activate Windows.

14:33  
01-11-2022

## Installation of Single Node Hadoop Cluster

```

2022-11-01 14:29:25,055 INFO namenode.FSDirectory: GROUP serial map: bits=24 maxEntries=16777215
2022-11-01 14:29:25,055 INFO namenode.FSDirectory: XATTR serial map: bits=24 maxEntries=16777215
2022-11-01 14:29:25,053 INFO util.GSet: Computing capacity for map INodeMap
2022-11-01 14:29:25,053 INFO util.GSet: VM type = 64-bit
2022-11-01 14:29:25,056 INFO util.GSet: 1.0% max memory 889 MB = 8.9 MB
2022-11-01 14:29:25,058 INFO util.GSet: capacity = 2^20 = 1048576 entries
2022-11-01 14:29:25,088 INFO namenode.FSDirectory: ACLs enabled? false
2022-11-01 14:29:25,088 INFO namenode.FSDirectory: POSIX ACL inheritance enabled? true
2022-11-01 14:29:25,091 INFO namenode.FSDirectory: Xattrs enabled? true
2022-11-01 14:29:25,093 INFO namenode.NameNode: Latching file names occurring more than 10 times
2022-11-01 14:29:25,104 INFO snapshot.SnapshotManager: Loaded config captureOpenFiles: false, skipCaptureAccessTimeOnlyChange: false, snapshotDiffAllowSnapRootDescendant: true, maxSnapshotLimit: 65536
2022-11-01 14:29:25,109 INFO snapshot.SnapshotManager: Skiplist is disabled
2022-11-01 14:29:25,116 INFO util.GSet: Computing capacity for map cachedBlocks
2022-11-01 14:29:25,116 INFO util.GSet: VM type = 64-bit
2022-11-01 14:29:25,118 INFO util.GSet: 0.25% max memory 889 MB = 2.2 MB
2022-11-01 14:29:25,119 INFO util.GSet: capacity = 2^18 = 262144 entries
2022-11-01 14:29:25,138 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.num.buckets = 10
2022-11-01 14:29:25,138 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.minutes = 10
2022-11-01 14:29:25,139 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.seconds = 10
2022-11-01 14:29:25,148 INFO namenode.FSNamesystem: Retry cache on namenode is enabled
2022-11-01 14:29:25,149 INFO namenode.FSNamesystem: Retry cache will use 0.03 of total heap and retry cache entry expiry time is 600000 millis
2022-11-01 14:29:25,155 INFO util.GSet: Computing capacity for map NameNodeRetryCache
2022-11-01 14:29:25,155 INFO util.GSet: VM type = 64-bit
2022-11-01 14:29:25,157 INFO util.GSet: 0.02999999939447746% max memory 889 MB = 27.1 KB
2022-11-01 14:29:25,157 INFO util.GSet: capacity = 2^15 = 32768 entries
INFO: File created at D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode; location null ? (Y or N) Y
2022-11-01 14:29:33,702 INFO namenode.FSImage: Allocated new BlockPoolId: 89-1378187979-192.168.56.1-1667293173677
2022-11-01 14:29:33,703 INFO common.Storage: Will remove files: [D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\fimage_00000000000000000000.mds, D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\seen_txid, D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\VERSION]
2022-11-01 14:29:33,805 INFO common.Storage: Storage directory D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode has been successfully formatted.
2022-11-01 14:29:33,870 INFO namenode.FSImageFormatProtobuf: Saving image file D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\fimage.cptk_00000000000000000000 using no compression
2022-11-01 14:29:34,029 INFO namenode.FSImageFormatProtobuf: Image file D:\hadoop-env\hadoop-3.2.2\data\dfs\namenode\current\fimage.cptk_00000000000000000000 of size 404 bytes saved in 0 seconds
2022-11-01 14:29:34,067 INFO namenode.NNStorageRetentionManager: Going to retain 1 images with txid >= 0
2022-11-01 14:29:34,077 INFO namenode.FSImage: FSImageSaver clean checkpoint: txid=0 when meet shutdown.
2022-11-01 14:29:34,077 INFO namenode.NameNode: SHUTDOWN_MSG:
*****
SHUTDOWN_MSG: Shutting down NameNode at A1T44/192.168.56.1
*****
PS D:\hadoop-env\hadoop-3.2.2\sbin> ./start-dfs.cmd
PS D:\hadoop-env\hadoop-3.2.2\sbin> ./start-yarn.cmd
starting yarn daemons
PS D:\hadoop-env\hadoop-3.2.2\sbin> jps
3252 NodeManager
5000 NameNode
5608 ResourceManager
8264 DataNode
6364 Jps
PS D:\hadoop-env\hadoop-3.2.2\sbin>

```

Activate Windows  
Go to Settings to activate Windows.

You have successfully logged in. | VenkatRVP/IT8711-FOSS-CLOUD | Mail - VENKATESH PRABHUR - C | Namenode information

localhost:9820/dfshealth.html#tab-overview

Hadoop Overview Datanodes Datanode Volume Failures Snapshot Startup Progress Utilities

## Overview 'localhost:9820' (active)

|                |  |
|----------------|--|
| Started:       | Tue Nov 01 14:29:51 +0530 2022                                 |
| Version:       | 3.2.2, r7a3bc90b05f257c8ace12f7d74264906f0f7a932               |
| Compiled:      | Sun Jan 03 14:56:00 +0530 2021 by hexiaoqiao from branch-3.2.2 |
| Cluster ID:    | CID-77652b81-ca2c-4757-a852-7eb42de6e2c5                       |
| Block Pool ID: | BP-1378187979-192.168.56.1-1667293173677                       |

## Summary

Security is off.  
SafeMode is off.  
1 files and directories, 0 blocks (0 replicated blocks, 0 erasure coded block groups) = 1 total filesystem object(s).  
Heap Memory used 84.89 MB of 187.5 MB Heap Memory. Max Heap Memory is 889 MB.  
Non Heap Memory used 49.7 MB of 50.9 MB Committed Non Heap Memory. Max Non Heap Memory is <unbounded>.

Activate Windows  
Go to Settings to activate Windows.

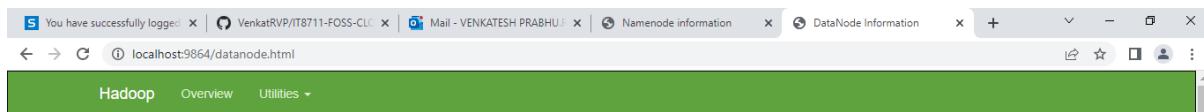


Name : ANANTHAN C P

Ex. No : 09

ROLL NO : 19UITE017

## Installation of Single Node Hadoop Cluster



### DataNode on A4IT44.KC.VNR:9866

|             |  |
|-------------|--|
| Cluster ID: | CID-77652b81-ca2c-4757-a852-7eb42de6e2c5         |
| Version:    | 3.2.2, r7a3bc90b05f257c8ace2f76d74264906f0f7a932 |

### Block Pools

| Namenode Address | Block Pool ID                            | Actor State | Last Heartbeat | Last Block Report | Last Block Report Size (Max Size) |
|------------------|--|-------------|----------------|-------------------|-----------------------------------|
| localhost:9820   | BP-1378187979-192.168.56.1-1667293173677 | RUNNING     | 2s             | 10 minutes        | 0 B (64 MB)                       |

### Volume Information

| Directory                                    | Storage Type | Capacity Used | Capacity Left | Capacity Reserved | Reserved Space for Replicas | Blocks | Activate Windows                    |
|--|--------------|---------------|---------------|-------------------|-----------------------------|--------|-------------------------------------|
| D:\hadoop-env\hadoop-3.2.2\data\dfs\datanode | DISK         | 321 B         | 223.33 GB     | 0 B               | 0 B                         | 0      | Go to Settings to activate Windows. |

