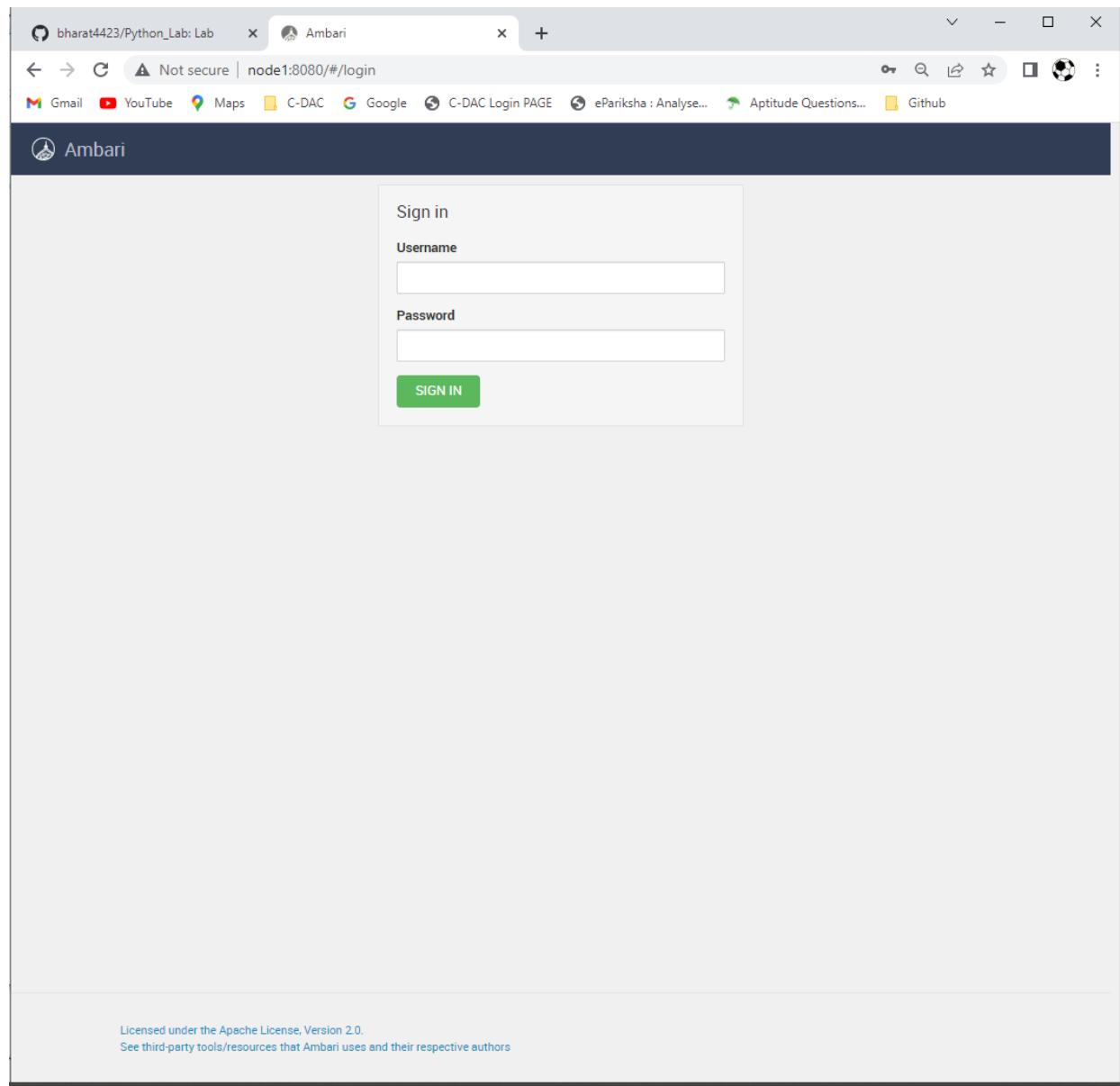


Ambari Server installation and configuration

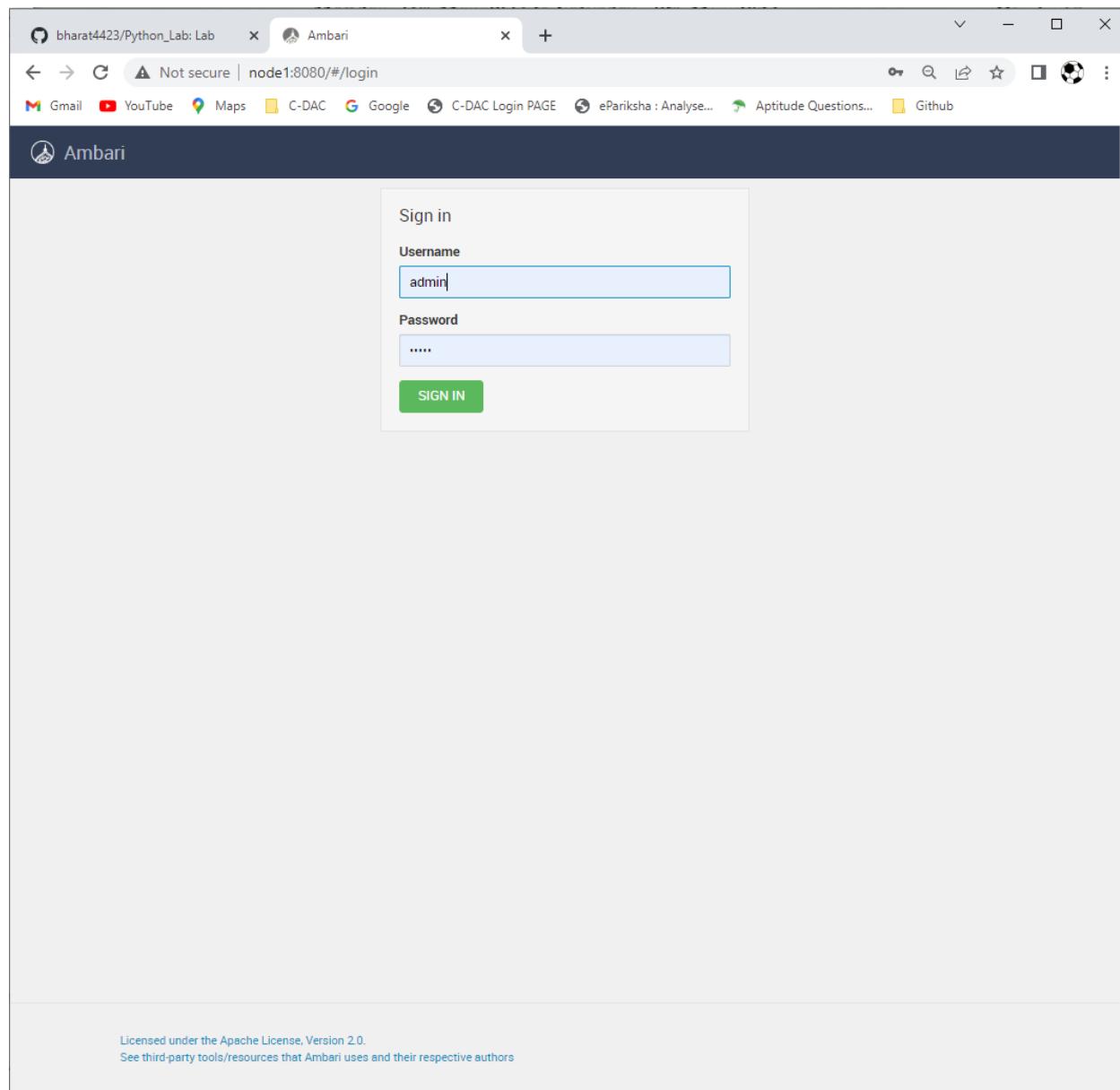
Step 1: Login in Web Browser



Step 2:- Enter Login credentials

Username- admin

Password- admin



Step 3: Launch install wizard

The screenshot shows a web browser window for the Apache Ambari Admin / Cluster Information page. The URL is `node1:8080/views/ADMIN_VIEW/2.7.3.0/INSTANCE/#/clusterInformation`. The left sidebar has a dark theme with the following navigation items:

- Ambari
- Cluster Management
- Cluster Information (selected)
- Remote Clusters
- Users
- Views

The main content area displays the "Welcome to Apache Ambari" message and the "Create a Cluster" section. It includes a brief description: "Provision a cluster, manage who can access the cluster, and customize views for Ambari users." Below this is a large icon of an open cardboard box. A green button labeled "LAUNCH INSTALL WIZARD" is centered below the box icon.

Step 4:- Click on that and Enter Cluster Name:- horton

The screenshot shows the Ambari Cluster Install Wizard running in a web browser. The title bar reads "bharat4423/Python_Lab: Lab" and "Ambari - Cluster Install Wizard". The URL in the address bar is "node1:8080/#/installer/step0". The page is titled "Installer" and shows the "Get Started" step. A sidebar on the left lists ten steps: 0 Get Started, 1 Select Version, 2 Install Options, 3 Confirm Hosts, 4 Choose Services, 5 Assign Masters, 6 Assign Slaves and Clients, 7 Customize Services, 8 Review, 9 Install, Start and Test, and 10 Summary. The "Get Started" step is highlighted with a green circle. The main content area is titled "Get Started" and contains the text: "This wizard will walk you through the cluster installation process. First, start by naming your new cluster." Below this is a form field labeled "Name your cluster" with a "Learn more" link, containing the value "horton". At the bottom right of the content area is a green "NEXT →" button. At the bottom of the page, there is a note about Apache License, Version 2.0.

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Step 5:- Keep only redhat7 Repositories, and Remove all other Repositories

Not secure | node1:8080#/installer/step1

Gmail YouTube Maps C-DAC Google C-DAC Login PAGE ePariksha : Analyse... Aptitude Questions... Github

admin

Installer

Select Version

Select the software version and method of delivery for your cluster.

HDP-3.1 HDP-3.0

HDP-3.1 ▾

Component	Version
Accumulo	1.7.0
Infra Solr	0.1.0
Ambari Metrics	0.1.0
Atlas	0.7.0.3.1
Druid	0.12.1
Liberator	0.0.0.3

Repositories

Using a Public Repository requires Internet connectivity. Using a Local Repository requires you have configured the software in a repository available in your network.

Use Public Repository Use Local Repository

Provide Base URLs for the Operating Systems you are configuring.

Attention: Repository Base URLs of at least one OS are REQUIRED before you can proceed. Please make sure they are in correct format with its protocol.

OS	Name	Base URL
amazonlinux2	HDP-3.1	Enter Base URL or remove this OS
	HDP-UTILS-1.1.0.22	
debian9	HDP-3.1	Enter Base URL or remove this OS
	HDP-UTILS-1.1.0.22	
redhat-ppc7	HDP-3.1	Enter Base URL or remove this OS
	HDP-UTILS-1.1.0.22	
redhat7	HDP-3.1	Enter Base URL or remove this OS
	HDP-UTILS-1.1.0.22	

+ADD ▾

Step 6:- Put there URL path

The screenshot shows the Ambari Cluster Install Wizard at Step 1: Select Version. The left sidebar lists steps from 1 to 10. The main panel shows the 'Select Version' step, which allows selecting software versions and delivery methods. The 'HDP-3.1' tab is selected. It lists components like Accumulo, Infra Solr, Ambari Metrics, Atlas, Druid, and unica. Below this is the 'Repositories' section, where 'Use Local Repository' is selected. A note says 'Attention: Repository Base URLs of at least one OS are REQUIRED before you can proceed. Please make sure they are in correct format with its protocol.' A table at the bottom lists OS configurations: redhat7 with HDP-3.1 and HDP-UTILS-1.1.0.22, both with 'Base URL' fields. There are checkboxes for 'Skip Repository Base URL validation (Advanced)' and 'Use RedHat Satellite/Spacewalk'.

Step 7: URL's

HDP-3.1:- <http://node1.bharat.com/HDP/centos7/3.1.0.0-78/>

HDP-UTILS: - <http://node1.bharat.com/HDP-UTILS/centos7/1.1.0.22/>

The screenshot shows the Ambari Cluster Install Wizard interface. The left sidebar lists steps from 1 to 10: Get Started, Select Version, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, Customize Services, Review, Install, Start and Test, and Summary. Step 1 is completed (Get Started), and Step 2 (Select Version) is currently active.

In the main panel, the title is "Select Version" with the sub-instruction "Select the software version and method of delivery for your cluster." A dropdown menu shows "HDP-3.1" is selected, with "HDP-3.0" as an option. Below the dropdown is a table of software components and their versions:

Component	Version
Accumulo	1.7.0
Infra Solr	0.1.0
Ambari Metrics	0.1.0
Atlas	0.7.0.3.1
Druid	0.12.1
WPAS	2.0.0.2.1

Below the table, the section "Repositories" is shown with the instruction "Using a Public Repository requires internet connectivity. Using a Local Repository requires you have configured the software in a repository available in your network." There are two radio buttons: "Use Public Repository" (unchecked) and "Use Local Repository" (checked). A note below says "Why is this not selected?"

A "Provide Base URLs for the Operating Systems you are configuring." input field contains the URL "http://node1.bharat.com/HDP/centos7/3.1.0.0-78/". An "ADD" button is available to add more URLs. The table below shows the configuration for "redhat7":

OS	Name	Base URL
redhat7	HDP-3.1	http://node1.bharat.com/HDP/centos7/3.1.0.0-78/
	HDP-UTILS-1.1.0.22	http://node1.bharat.com/HDP-UTILS/centos7/1.1.0.22/

At the bottom, there are checkboxes for "Skip Repository Base URL validation (Advanced)" and "Use RedHat Satellite/Spacewalk".

At the very bottom, a note states: "Licensed under the Apache License, Version 2.0. See third-party tools/resources that Ambari uses and their respective authors."

Step 8:- Select Target Hosts

node[1-2].bharat.com (bharat.com - Domain name)

The screenshot shows the Ambari Cluster Install Wizard in progress, specifically Step 2: Target Hosts. On the left, a vertical navigation bar lists steps 1 through 10. Steps 1 and 2 are completed (indicated by green checkmarks), while step 2 is currently active (highlighted in blue). The main content area has a title 'Install Options' and a sub-section 'Target Hosts' with the instruction: 'Enter the list of hosts to be included in the cluster and provide your SSH key.' Below this, a text input field contains the value 'node[1-2].bharat.com'. Further down, there's a section for 'Host Registration Information' with two radio button options: 'Provide your SSH Private Key to automatically register hosts' (selected) and 'Perform manual registration on hosts and do not use SSH'. Below these options is a 'CHOOSE FILE' button with the label 'ssh private key' and a note 'No file selected'. At the bottom of the form, there are fields for 'SSH User Account' (set to 'root') and 'SSH Port Number' (set to '22'). At the very bottom of the page, a note reads: 'Licensed under the Apache License, Version 2.0. See third-party tools/resources that Ambari uses and their respective authors.'

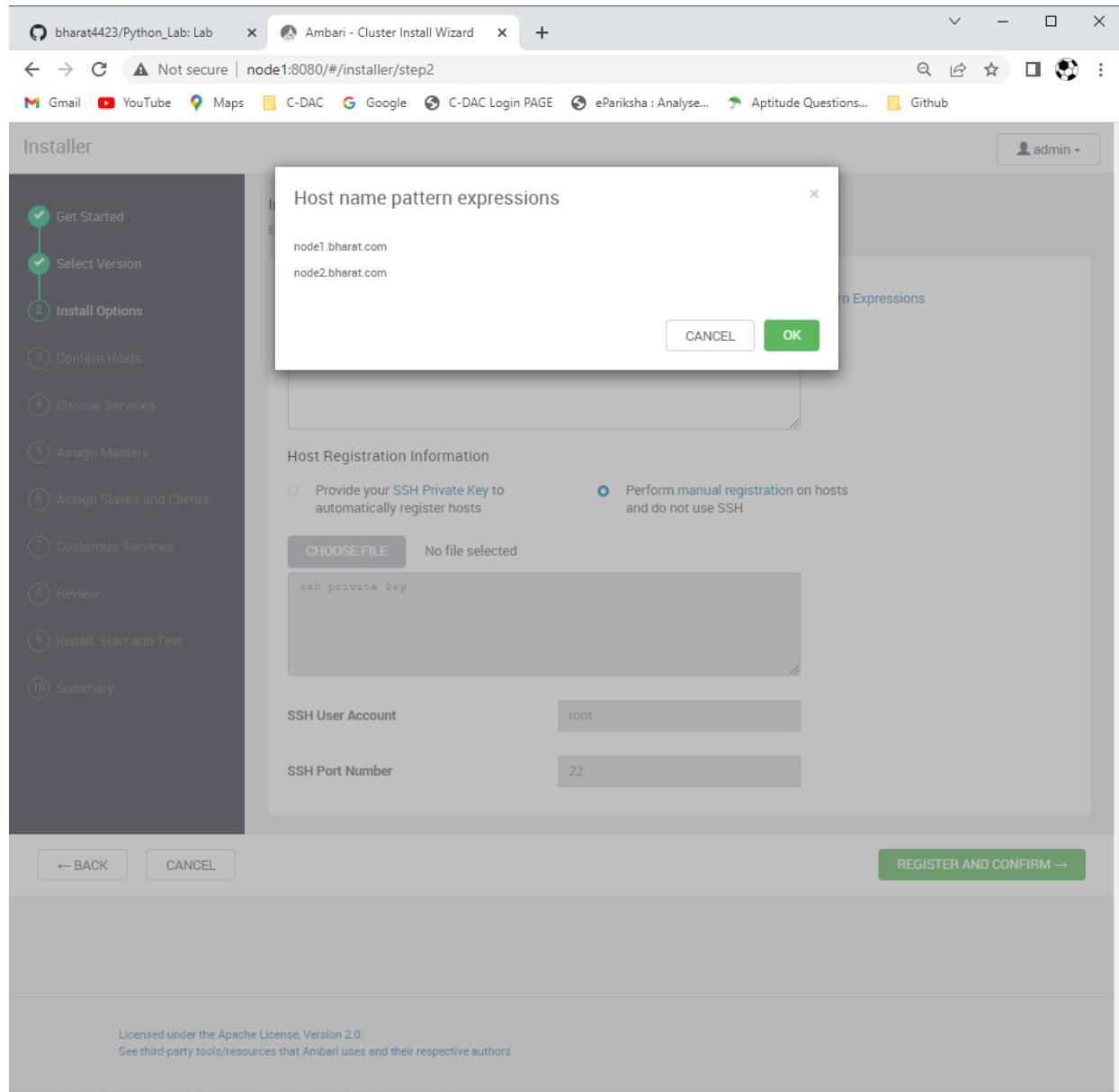
Step 9:-Select Perform manual registration and click on REGISTER AND CONFIRM

The screenshot shows the Ambari Cluster Install Wizard interface. The left sidebar lists steps from 1 to 10: Get Started, Select Version, Install Options (which is currently selected), Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, Customize Services, Review, Install, Start and Test, and Summary. The main panel is titled 'Install Options' and contains the following fields:

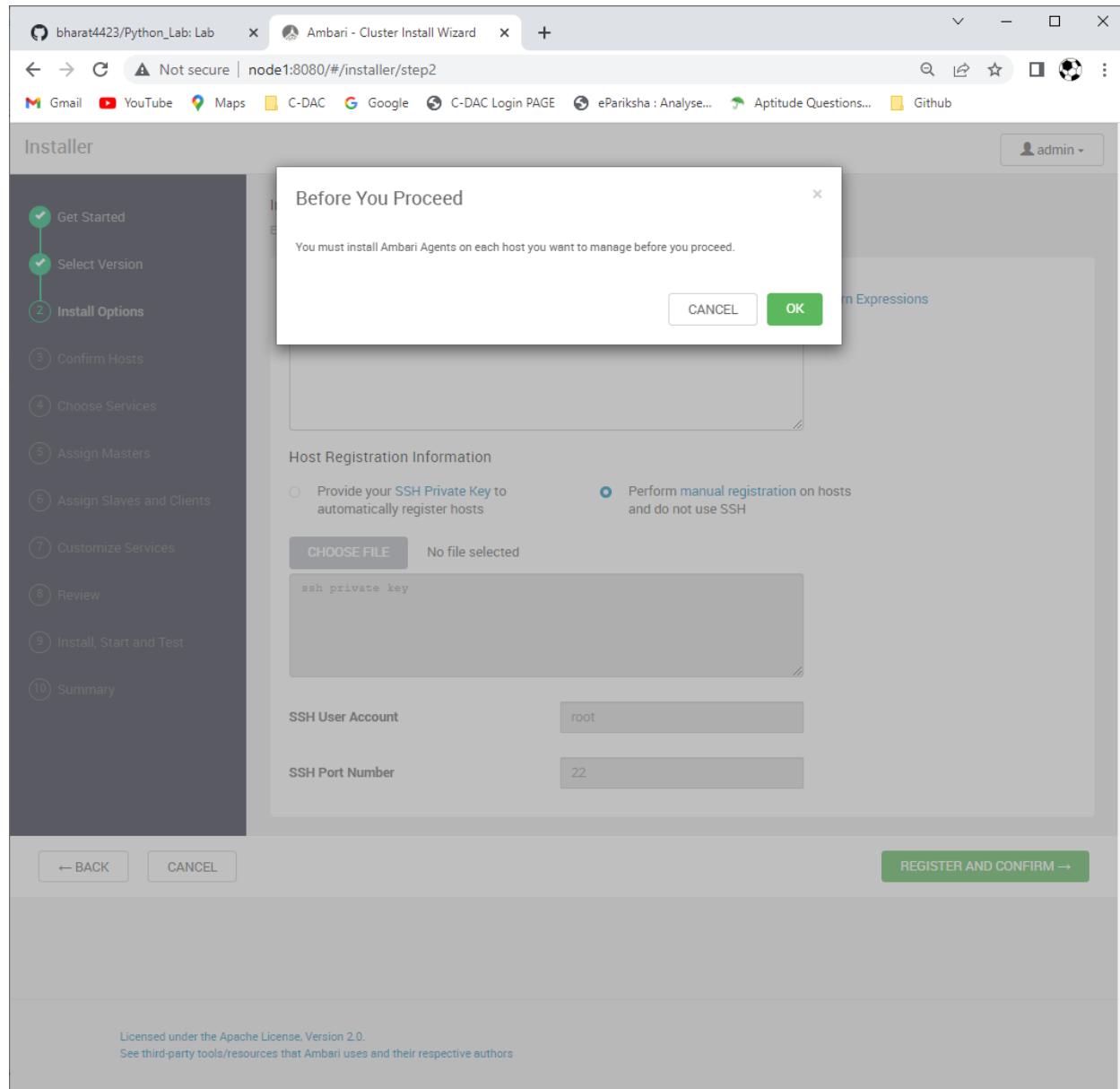
- Target Hosts:** A text input field containing "node[1-2].bharat.com".
- Host Registration Information:** A section with two radio button options:
 - Provide your [SSH Private Key](#) to automatically register hosts
 - Perform manual registration on hosts and do not use SSH
- CHOOSE FILE** button: No file selected. A preview window shows "ssh private key".
- SSH User Account:** Set to "root".
- SSH Port Number:** Set to "22".

At the bottom of the main panel, there are "BACK", "CANCEL", and "REGISTER AND CONFIRM →" buttons. A note at the bottom states: "Licensed under the Apache License, Version 2.0. See [third-party tools/resources that Ambari uses and their respective authors](#)".

Step 10:- Select OK



Step 11:- Again Click OK



Step 12:- Successfully registering our hosts. Then click NEXT

Confirm Hosts

Registering your hosts.
Please confirm the host list and remove any hosts that you do not want to include in the cluster.

Host	Progress	Status	Action
node1.bharat.com	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	Success	trash
node2.bharat.com	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	Success	trash

Show: All (2) | Installing (0) | Registering (0) | Success (2) | Fail (0)

Items per page: 25 ▾ 1 - 2 of 2 < >

1 Other Registered Hosts

All host checks passed on 2 registered hosts. Click here to see the check results.

BACK CANCEL NEXT →

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Step 13:- Then select the below selected checkbox and unchecked others.

1)HDFS, 2)YARN+MapReduce2, 3)Hive, 4)Pig

The screenshot shows the Ambari Cluster Install Wizard at Step 4: Choose Services. On the left sidebar, steps 1 through 4 are completed (Get Started, Select Version, Install Options, Confirm Hosts), step 4 (Choose Services) is highlighted, and steps 5 through 10 are listed below. The main panel has two sections: 'Choose File System' and 'Choose Services'. In 'Choose File System', 'HDFS' is selected. In 'Choose Services', 'YARN + MapReduce2', 'Tez', 'Hive', and 'Pig' are selected, while 'HBase' and 'Sqoop' are unselected. The 'Oozie' service is also listed at the bottom.

Service	Version	Description
HDFS	3.1.1.3.1	Apache Hadoop Distributed File System

Service	Version	Description
<input checked="" type="checkbox"/> YARN + MapReduce2	3.1.0	Apache Hadoop NextGen MapReduce (YARN)
<input checked="" type="checkbox"/> Tez	0.9.0.3.1	Tez is the next generation Hadoop Query Processing framework written on top of YARN.
<input checked="" type="checkbox"/> Hive	3.0.0.3.1	Data warehouse system for ad-hoc queries & analysis of large datasets and table & storage management service
<input type="checkbox"/> HBase	2.0.0.3.1	Non-relational distributed database and centralized service for configuration management & synchronization
<input checked="" type="checkbox"/> Pig	0.16.1.3.1	Scripting platform for analyzing large datasets
<input type="checkbox"/> Sqoop	1.4.7	Tool for transferring bulk data between Apache Hadoop and structured data stores such as relational databases
Oozie	4.4.0	System for workflow coordination and execution of

Step 14:- Select here Zookeeper and Ambari

The screenshot shows a web browser window titled "Ambari - Cluster Install W" with the URL "node1:8080/#/installer/step4". The page displays a list of services for selection:

Service	Version	Description
Sqoop	1.4.7	Tool for transferring bulk data between Apache Hadoop and structured data stores such as relational databases
Oozie	4.4.0	System for workflow coordination and execution of Apache Hadoop jobs. This also includes the installation of the optional Oozie Web Console which relies on and will install the ExtJS Library.
<input checked="" type="checkbox"/> ZooKeeper	3.4.9.3.1	Centralized service which provides highly reliable distributed coordination
Storm	1.2.1	Apache Hadoop Stream processing framework
Accumulo	1.7.0	Robust, scalable, high performance distributed key/value store.
Infra Solr	0.1.0	Core shared service used by Ambari managed components.
<input checked="" type="checkbox"/> Ambari Metrics	0.1.0	A system for metrics collection that provides storage and retrieval capability for metrics collected from the cluster
Atlas	0.7.0.3.1	Atlas Metadata and Governance platform
Kafka	1.0.0.3.1	A high-throughput distributed messaging system
Knox	0.5.0.3.1	Provides a single point of authentication and access for Apache Hadoop services in a cluster
Log Search	0.5.0	Log aggregation, analysis, and visualization for Ambari managed services. This service is Technical Preview .
Ranger	1.2.0.3.1	Comprehensive security for Hadoop
Ranger KMS	1.2.0.3.1	Key Management Server
<input checked="" type="checkbox"/> SmartSense	1.5.1.2.7.3.0-139	SmartSense - Hortonworks SmartSense Tool (HST) helps quickly gather configuration, metrics, logs from common HDP services that aids to quickly

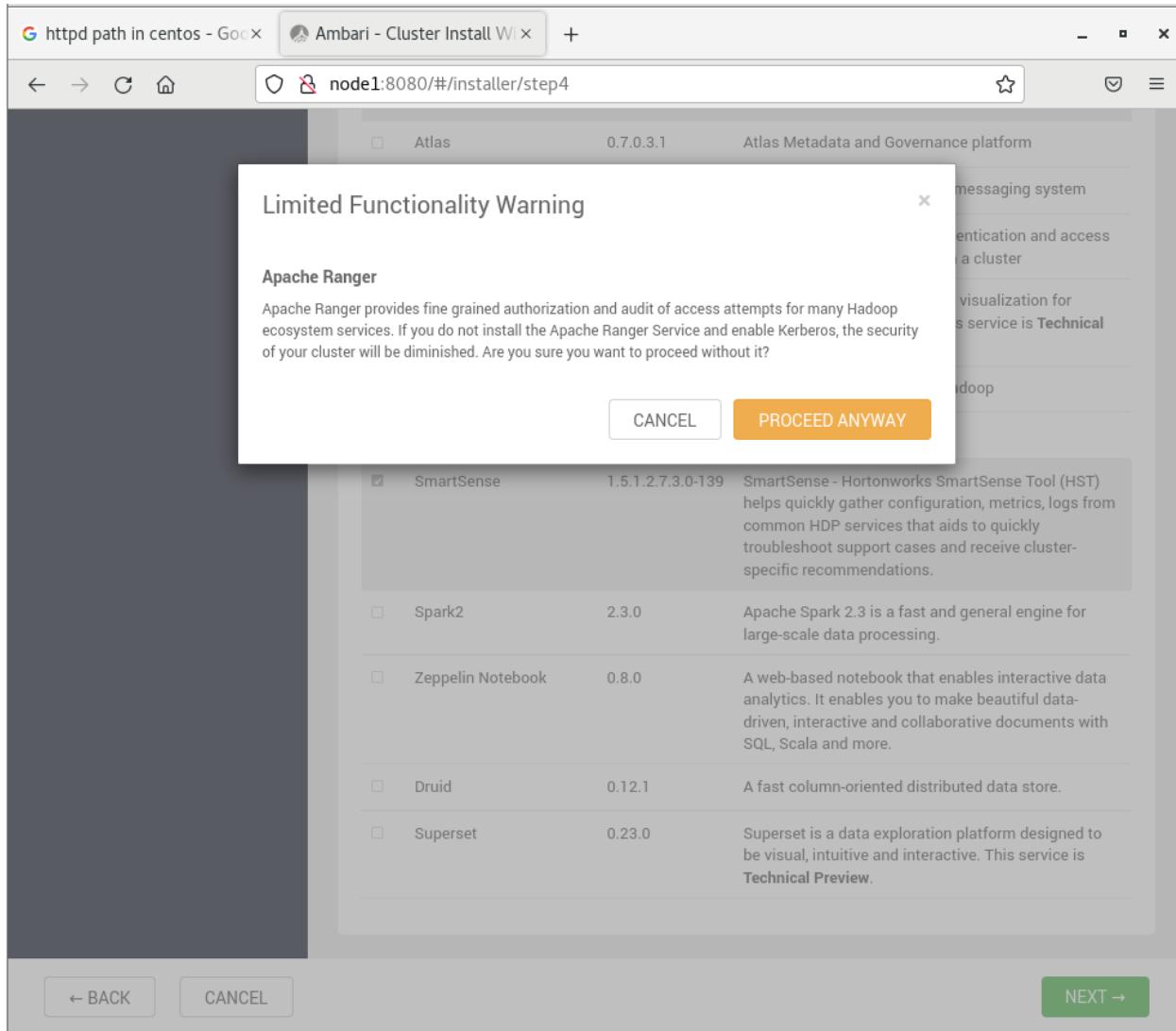
Step 15:-Then Click on NEXT

The screenshot shows a Firefox browser window titled "Ambari - Cluster Install Wiz" with the URL "node1:8080/#/installer/step4". The page displays a list of services for configuration:

Service	Version	Description
Atlas	0.7.0.3.1	Atlas Metadata and Governance platform
Kafka	1.0.0.3.1	A high-throughput distributed messaging system
Knox	0.5.0.3.1	Provides a single point of authentication and access for Apache Hadoop services in a cluster
Log Search	0.5.0	Log aggregation, analysis, and visualization for Ambari managed services. This service is Technical Preview .
Ranger	1.2.0.3.1	Comprehensive security for Hadoop
Ranger KMS	1.2.0.3.1	Key Management Server
<input checked="" type="checkbox"/> SmartSense	1.5.1.2.7.3.0-139	SmartSense - Hortonworks SmartSense Tool (HST) helps quickly gather configuration, metrics, logs from common HDP services that aids to quickly troubleshoot support cases and receive cluster-specific recommendations.
Spark2	2.3.0	Apache Spark 2.3 is a fast and general engine for large-scale data processing.
Zeppelin Notebook	0.8.0	A web-based notebook that enables interactive data analytics. It enables you to make beautiful data-driven, interactive and collaborative documents with SQL, Scala and more.
Druid	0.12.1	A fast column-oriented distributed data store.
Superset	0.23.0	Superset is a data exploration platform designed to be visual, intuitive and interactive. This service is Technical Preview .

At the bottom, there are buttons for "BACK", "CANCEL", and a green "NEXT →" button.

Step 16:- Click On PROCEED ANYWAY



Step 17:- Then see the configuration which is automatically taken.

The screenshot shows the Ambari Cluster Install Wizard at Step 5: Assign Masters. The left sidebar lists steps from 1 to 10, with steps 1-4 completed and step 5 highlighted. The main area is titled "Assign Masters" and contains a sub-section "Assign master components to hosts you want to run them on." It shows the following assignments:

- NameNode: node1.bharat.com (15.5 GB, 4 cores)
- SNameNode: node2.bharat.com (7.6 G...)
- ResourceManager: node1.bharat.com (15.5 ...)
- Timeline Service V2.0 Reader: node1.bharat.com (15.5 ...)
- YARN Registry DNS: node1.bharat.com (15.5 ...)
- Timeline Service V1.5: node2.bharat.com (7.6 G...)
- History Server: node2.bharat.com (7.6 G...)
- Hive Metastore: node2.bharat.com (7.6 G...)
- HiveServer2: node2.bharat.com (7.6 G...)
- ZooKeeper Server: node1.bharat.com (15.5 ...)

On the right, two boxes show the available services for each host:

- node1.bharat.com (15.5 GB, 4 cores) includes: NameNode, ResourceManager, Timeline Service V2.0 Reader, YARN Registry DNS, ZooKeeper Server, Metrics Collector, Grafana, Activity Explorer, HST Server, and Activity Analyzer.
- node2.bharat.com (7.6 GB, 4 cores) includes: SNameNode, Timeline Service V1.5, History Server, Hive Metastore, HiveServer2, and ZooKeeper Server.

Step 18:-Then click NEXT

The screenshot shows the Ambari Cluster Install Wizard at Step 5. On the left, a sidebar lists steps 8, 9, and 10: Review, Install, Start and Test, and Summary. The main area displays service host assignments:

- Timeline Service V1.5: node2.bharat.com (7.6 G...)
- History Server: node2.bharat.com (7.6 G...)
- Hive Metastore: node2.bharat.com (7.6 G...)
- HiveServer2: node2.bharat.com (7.6 G...)
- ZooKeeper Server: node1.bharat.com (15.5 ...)
- ZooKeeper Server: node2.bharat.com (7.6 G...)
- Metrics Collector: node1.bharat.com (15.5 ...)
- Grafana: node1.bharat.com (15.5 ...)
- Activity Explorer: node1.bharat.com (15.5 ...)
- HST Server: node1.bharat.com (15.5 ...)
- Activity Analyzer: node1.bharat.com (15.5 ...)

A sidebar on the right shows the cluster configuration: node2.bharat.com (7.6 GB, 4 cores) with SNameNode, Timeline Service V1.5, History Server, Hive Metastore, HiveServer2, and ZooKeeper Server highlighted in green.

At the bottom, there are buttons for BACK, CANCEL, and NEXT →.

Step 19:- Then select all DataNode, all NodeManager and all Client.

And click NEXT.

Assign Slaves and Clients

Assign slave and client components to hosts you want to run them on.
Hosts that are assigned master components are shown with *.
"Client" will install HDFS Client, YARN Client, MapReduce2 Client, Tez Client, Hive Client, Pig Client and ZooKeeper Client.

Host	all none	all none	all none	all none
node1.bharat.com*	<input checked="" type="checkbox"/> DataNode	<input type="checkbox"/> NFSGateway	<input checked="" type="checkbox"/> NodeManager	<input checked="" type="checkbox"/> Client
node2.bharat.com*	<input checked="" type="checkbox"/> DataNode	<input type="checkbox"/> NFSGateway	<input checked="" type="checkbox"/> NodeManager	<input checked="" type="checkbox"/> Client

Items per page: 25 ▾ 1 - 2 of 2 ⏪

← BACK CANCEL NEXT →

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bharat@node... Ambari - Clust... bharat@node... Documents root@node1:...

Step 20:- Then give the password.

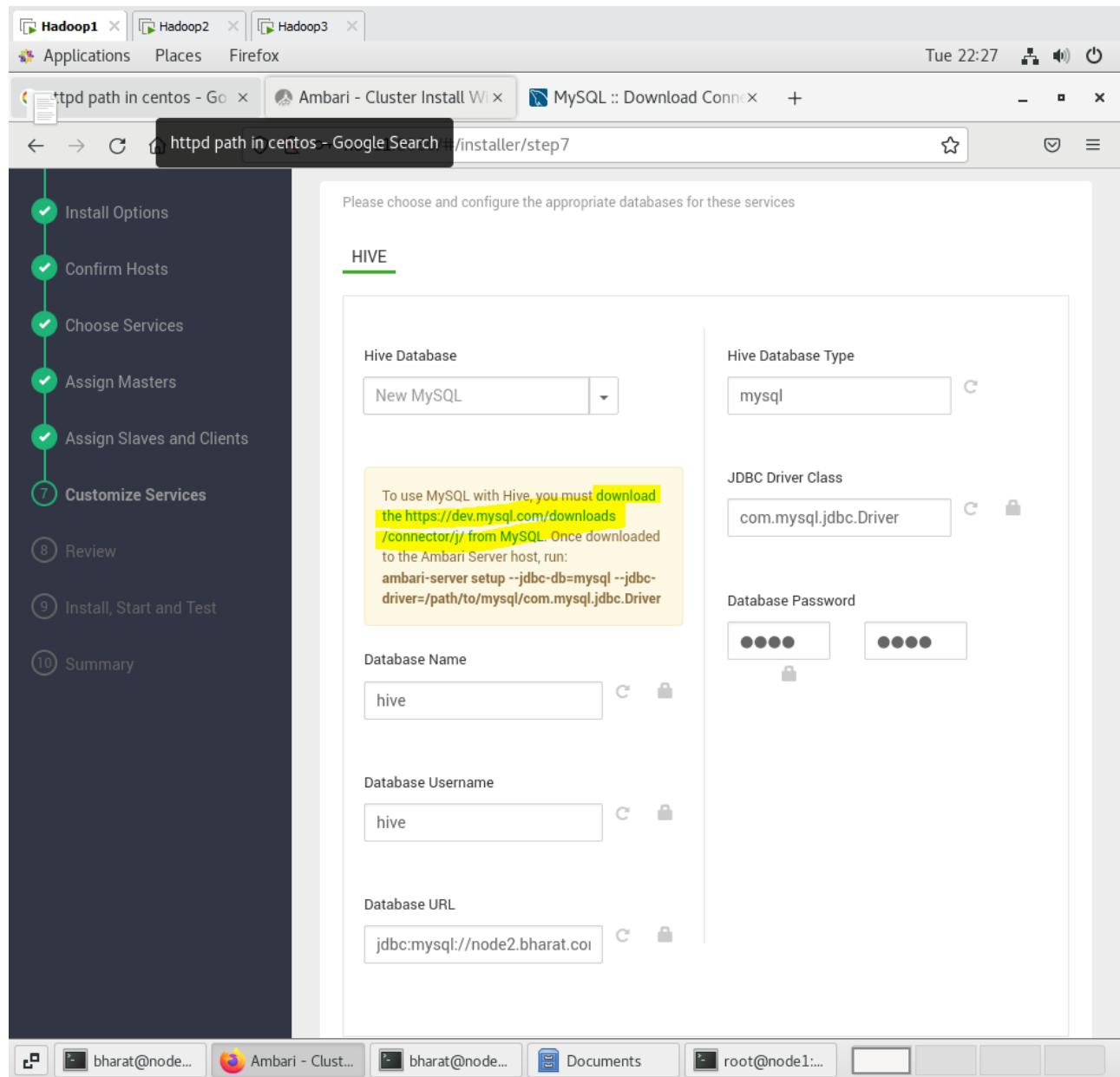
	Username	Password	Confirm Password
Grafana Admin-	admin	grafana	grafana
Hive Database	hive	hive	hive
Activity Explorer's	N/A	admin	admin

The screenshot shows the Ambari Cluster Install Wizard at step 7: Customize Services. The left sidebar lists steps 1 through 10. The main area is titled 'CREDENTIALS' and shows fields for 'Grafana Admin', 'Hive Database', and 'Activity Explorer's'. The 'Activity Explorer's' section has 'N/A' in the 'Username' field and 'Admin' in the 'Password' field. The Ambari interface includes a top navigation bar with tabs like Applications, Places, and Firefox, and a bottom dock with icons for bharat@node..., Ambari - Clust..., bharat@node..., Documents, and root@node1:... .

Service	Username*	Password*	Confirm Password*
Grafana Admin	admin	●●●●●●●●●●	●●●●●●●●●●
Hive Database	hive	●●●●●	●●●●●
Activity Explorer's	N/A	●●●●●	●●●●●
	Admin		

Step 21:- Then copy this Path and paste on notepad for future installation.

Copied Path :- ambari-server setup --jdbc-db=mysql --jdbc-driver=



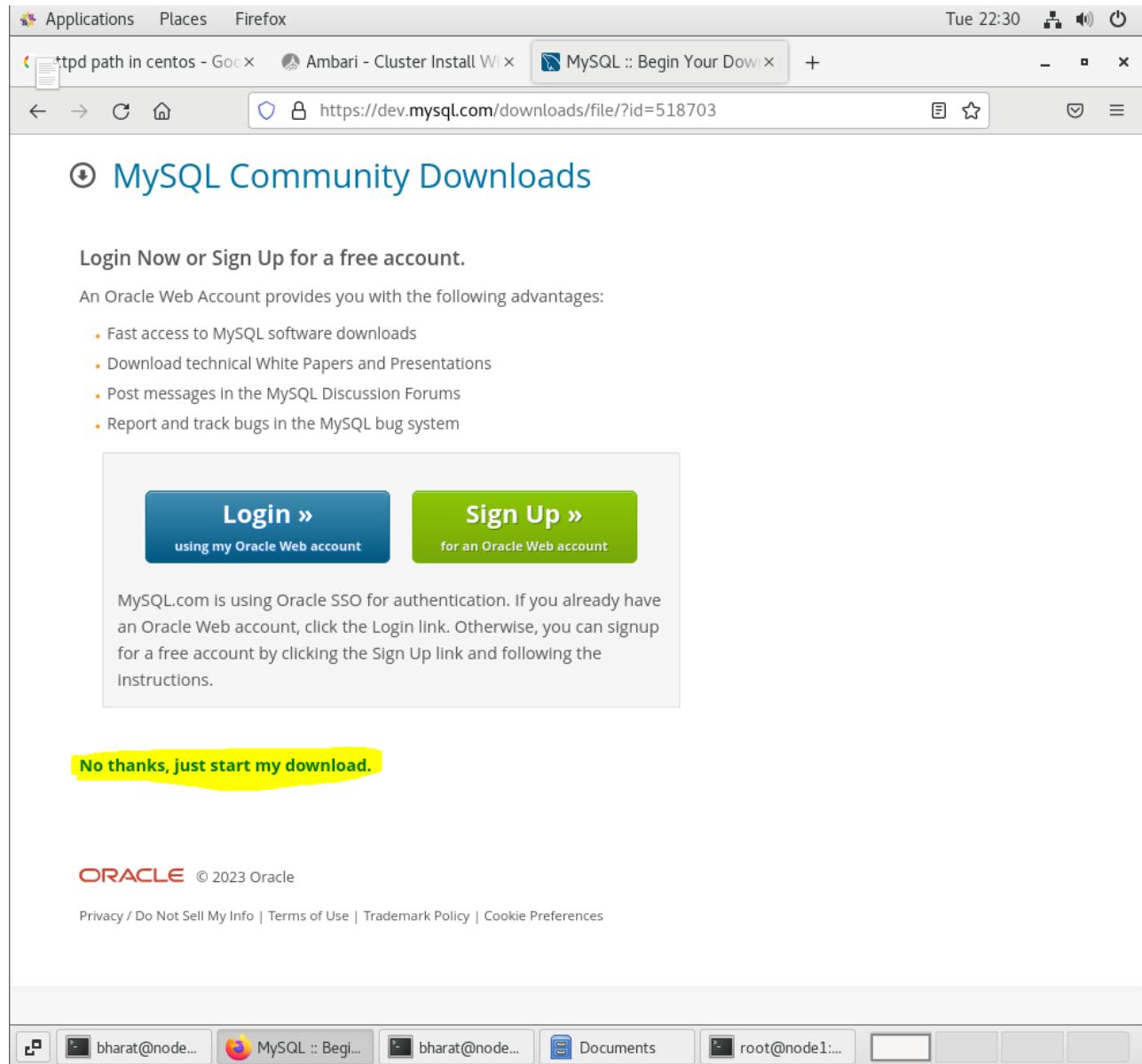
Step22:-Then select below options.

Select OS: - **Red Hat Enterprise Linux/Oracle Linux**

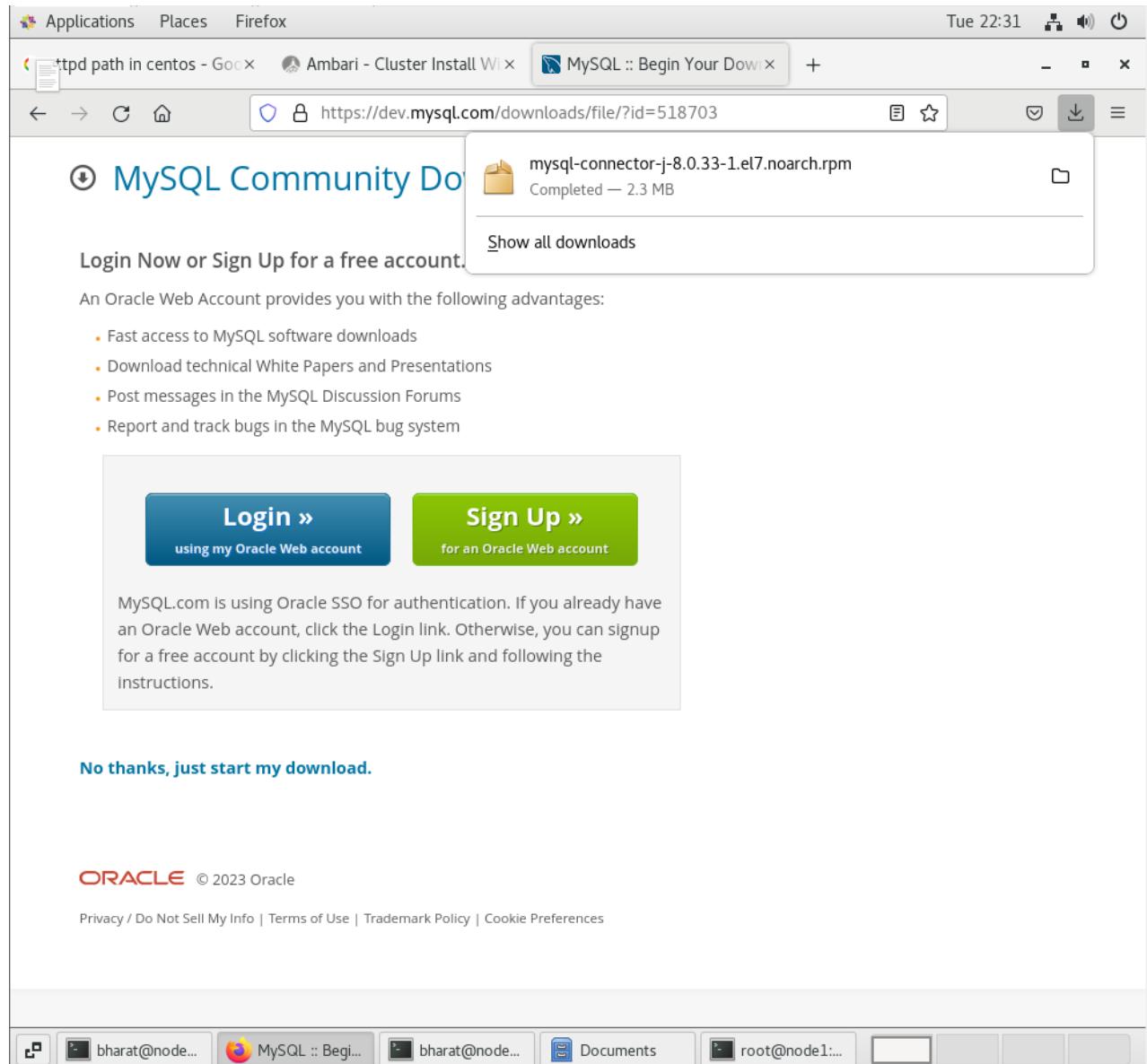
Select OS Version:- **Red Hat Enterprise Linux 7/Oracle Linux7(Architecture indep)**

The screenshot shows a Linux desktop environment with a windowed interface. A Firefox browser window is open, displaying the MySQL Community Downloads page for the Connector/J 8.0.33 release. The browser's address bar shows the URL: <https://dev.mysql.com/downloads/connector/j/>. The page content includes dropdown menus for selecting the operating system (Red Hat Enterprise Linux / Oracle Linux) and OS version (Red Hat Enterprise Linux 7 / Oracle Linux 7 (Architecture Indep)). It also features a download link for an RPM package (mysql-connector-j-8.0.33-1.el7.noarch.rpm) with a file size of 2.3M and a download button. A note at the bottom suggests using MD5 checksums and GnuPG signatures for package verification.

Step 24:-Click on No thanks, just start my download



Step25:-Download mysql-connector



Step 26:-After that go to the terminal and execute below command.

Execute in root user only

1) rpm -i /home/bharat/Downloads/mysql-connector-j-8.0.33-1.el7.noarch.rpm

2) ambari-server setup --jdbc-db=mysql --jdbc-driver=/usr/share/java/mysql-connector-java.jar

Note:-

1) Copied this command in installation process please refer above screenshot .

ambari-server setup --jdbc-db=mysql --jdbc-driver=

2) This is jar file path.

/usr/share/java/mysql-connector-java.jar

Step 27:-Then see the next step.

The screenshot shows a Firefox browser window with the URL `node1:8080/#/installer/step/7`. The page is titled "Please choose and configure the appropriate databases for these services" and is specifically for the HIVE service. On the left, a vertical navigation bar lists steps 1 through 10, with steps 1-6 checked off and steps 7-10 listed below. Step 7 is currently selected. The main configuration area for HIVE includes fields for "Hive Database" (set to "New MySQL"), "Hive Database Type" (set to "mysql"), "JDBC Driver Class" (set to "com.mysql.jdbc.Driver"), "Database Name" (set to "hive"), "Database Username" (set to "hive"), and "Database URL" (set to "jdbc:mysql://node2.bharat.co..."). A note in the center states: "To use MySQL with Hive, you must download the <https://dev.mysql.com/downloads/connector/j/> from MySQL. Once downloaded to the Ambari Server host, run: ambari-server setup --jdbc-db=mysql --jdbc-driver=/path/to/mysql/com.mysql.jdbc.Driver". The browser's address bar also shows the path `tpd path in centos - Go`.

Step28:-Then click NEXT

To use MySQL with Hive, you must [download the https://dev.mysql.com/downloads/connector/j/ from MySQL](https://dev.mysql.com/downloads/connector/j/). Once downloaded to the Ambari Server host, run:
ambari-server setup --jdbc-db=mysql --jdbc-driver=/path/to/mysql/com.mysql.jdbc.Driver

JDBC Driver Class
com.mysql.jdbc.Driver

Database Name
hive

Database Username
hive

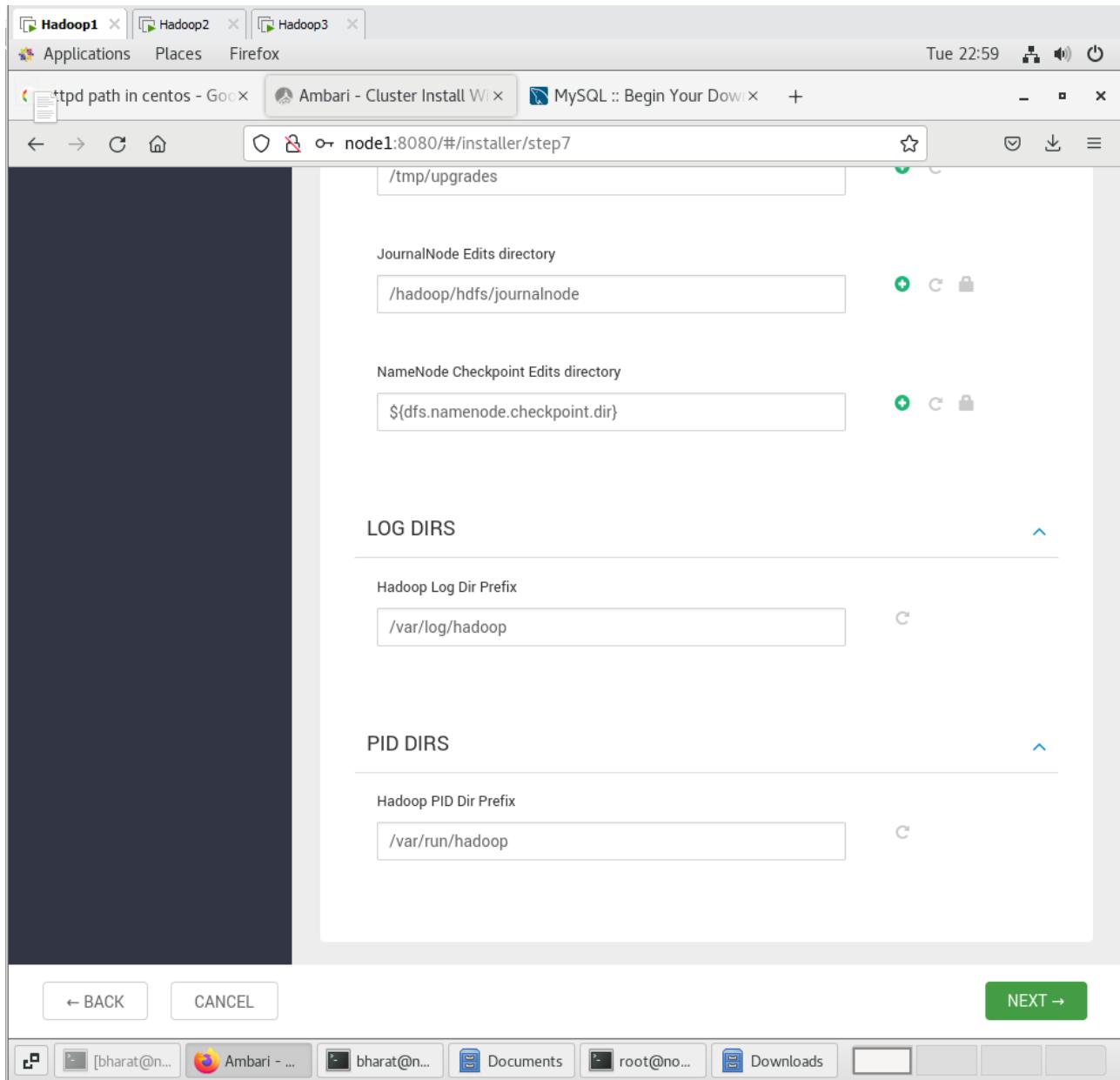
Database URL
jdbc:mysql://node2.bharat.co

NEXT →

Step29:- See Next Step

The screenshot shows the Ambari Cluster Install Wizard interface. The top navigation bar includes 'Applications', 'Places', 'Firefox', and the date 'Tue 22:58'. The title bar shows the current step: 'node1:8080/#/installer/step7'. The user is logged in as 'admin'. The left sidebar lists the steps: Get Started, Select Version, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, Customized Services (step 7), Review (step 8), Install, Start and Test (step 9), and Summary (step 10). The main panel is titled 'DIRECTORIES' (under HDFS) and shows three sections: 'DataNode directories' containing '/hadoop/hdfs/data' with edit and lock icons; 'NameNode directories' containing '/hadoop/hdfs/namenode' with edit and lock icons; and 'SecondaryNameNode Checkpoint directories' containing '/hadoop/hdfs/namesecondary' with edit and lock icons.

Step30:-Then click NEXT.



Step31:- Then again click NEXT.

The screenshot shows a Firefox browser window with the URL `node1:8080/#/installer/step7`. The title bar indicates it's a 'Cluster Install Wizard'. The main content area displays a list of service accounts with their corresponding usernames:

Users/Groups	Usernames
Smoke User	ambari-qa
Hadoop Group	hadoop
Ambari Metrics User	ams
HDFS User	hdbs
Proxy User Group	users
Hive User	hive
Mapreduce User	mapred
Tez User	tez
Yarn ATS User	yarn-ats
Yarn User	yarn
ZooKeeper User	zookeeper

On the left sidebar, steps 1 through 6 are checked off, while steps 7 through 10 are numbered. Step 7 is currently selected. At the bottom, there are 'BACK', 'CANCEL', and 'NEXT →' buttons.

Step32:- Scroll Down

The screenshot shows the Ambari Cluster Install Wizard in progress, specifically the HDFS configuration step. The left sidebar lists the steps completed so far: Select Version, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, and Custom Services (step 7). The current step is Review (step 8), which has not yet been started. Below the sidebar, the main panel displays the HDFS configuration settings for NameNode and DataNode.

NameNode Configuration:

- NameNode directories: /hadoop/hdfs/namenode
- NameNode Java heap size: 1GB (滑块设置为1GB)
- NameNode Server threads: 100 (滑块设置为100)
- Minimum replicated blocks %: 100% (滑块设置为100%)

DataNode Configuration:

- DataNode directories: /hadoop/hdfs/data
- DataNode failed disk tolerance: 0 (滑块设置为0)
- DataNode maximum Java heap size: 1GB (滑块设置为1GB)
- DataNode max data transfer threads: 4096 (滑块设置为4096)

The top navigation bar shows tabs for HDFS, YARN, MAPREDUCE2, TEZ, HIVE, PIG, ZOOKEEPER, AMBARI METRICS, and SMARTSERV. The browser address bar indicates the URL is node1:8080/#/installer/step7. The status bar at the bottom shows various open tabs and the user's session information.

Step33:- Then click NEXT.

The screenshot shows the Ambari Cluster Install Wizard at Step 7: HDFS Settings. The left sidebar lists the following steps:

- Install Options (Completed)
- Confirm Hosts (Completed)
- Choose Services (Completed)
- Assign Masters (Completed)
- Assign Slaves and Clients (Completed)
- Customize Services (Selected)
- Review
- Install, Start and Test
- Summary

The main panel is titled "HDFS" and contains two sections: "NameNode" and "DataNode".

NameNode Settings:

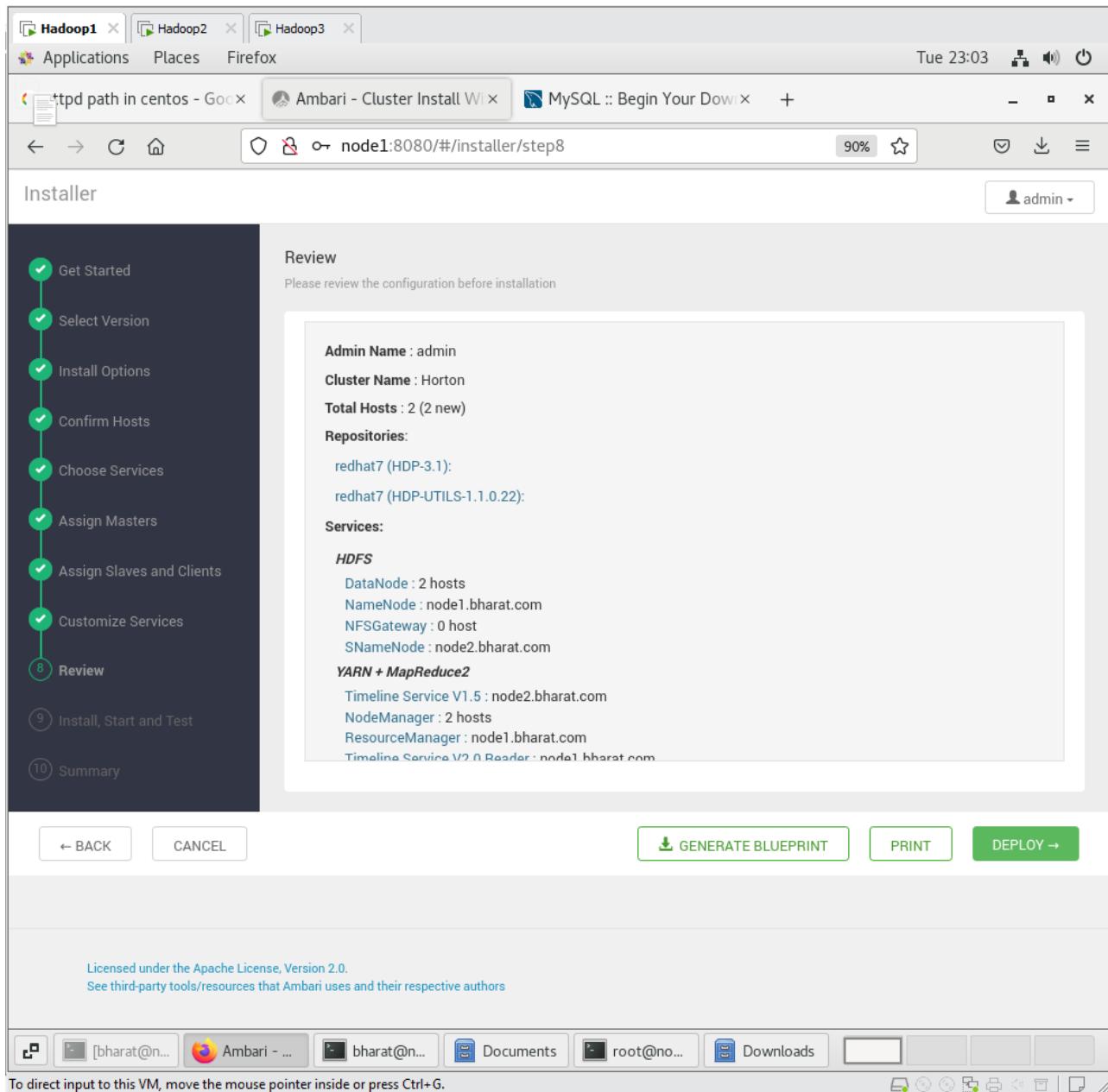
- NameNode directories: /hadoop/hdfs/namenode
- NameNode Java heap size: 1GB (Slider value: 100)
- NameNode Server threads: 100 (Slider value: 100)
- Minimum replicated blocks %: 100% (Slider value: 100%)

DataNode Settings:

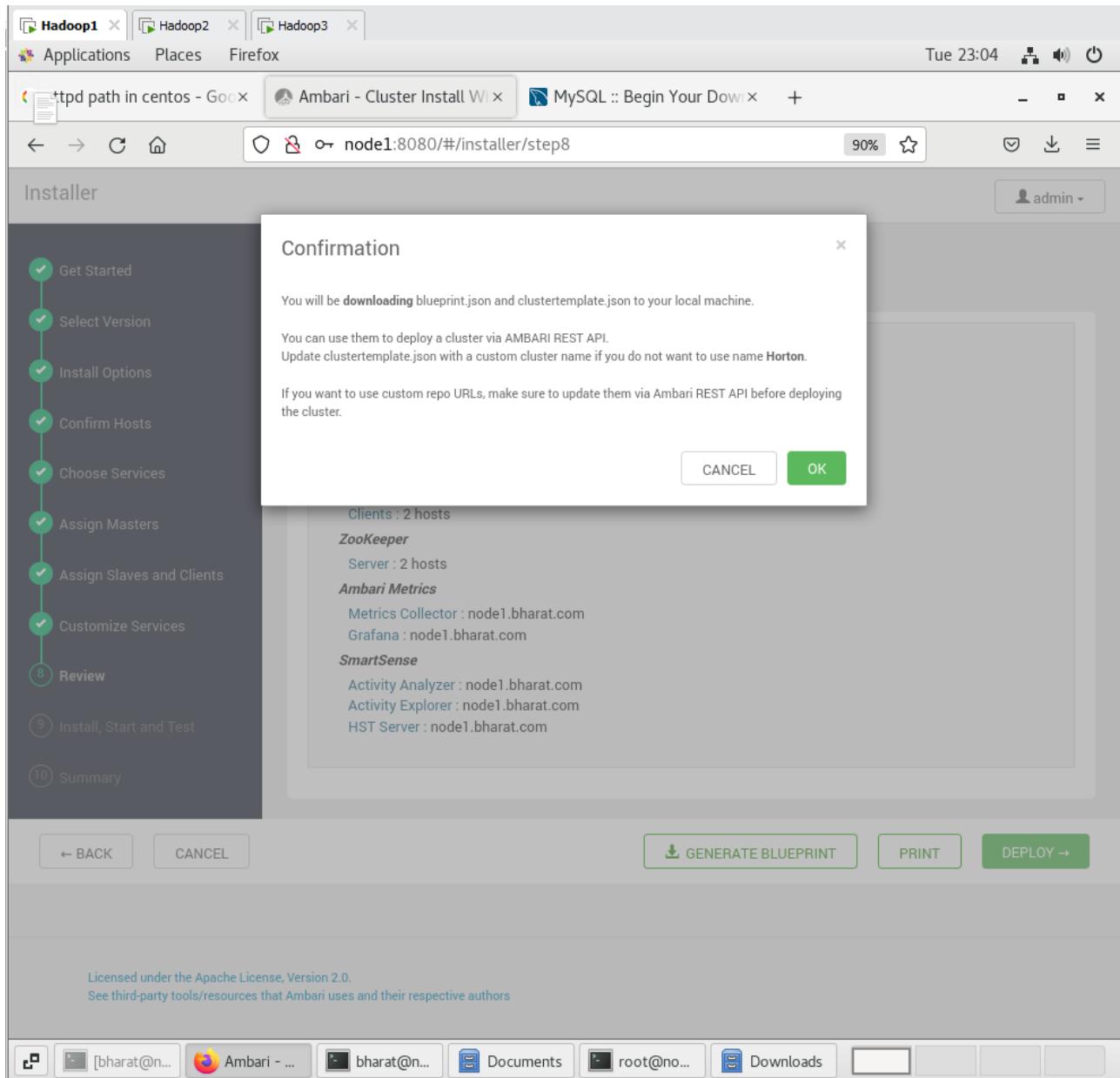
- DataNode directories: /hadoop/hdfs/data
- DataNode failed disk tolerance: 0 (Slider value: 0)
- DataNode maximum Java heap size: 1GB (Slider value: 100)
- DataNode max data transfer threads: 4096 (Slider value: 4096)

At the bottom of the panel are "BACK", "CANCEL", and "NEXT →" buttons. The status bar at the bottom shows various application icons and the current user as bharat@node1.

Step34:- Click on DEPLOY.



Step35: Click on OK.



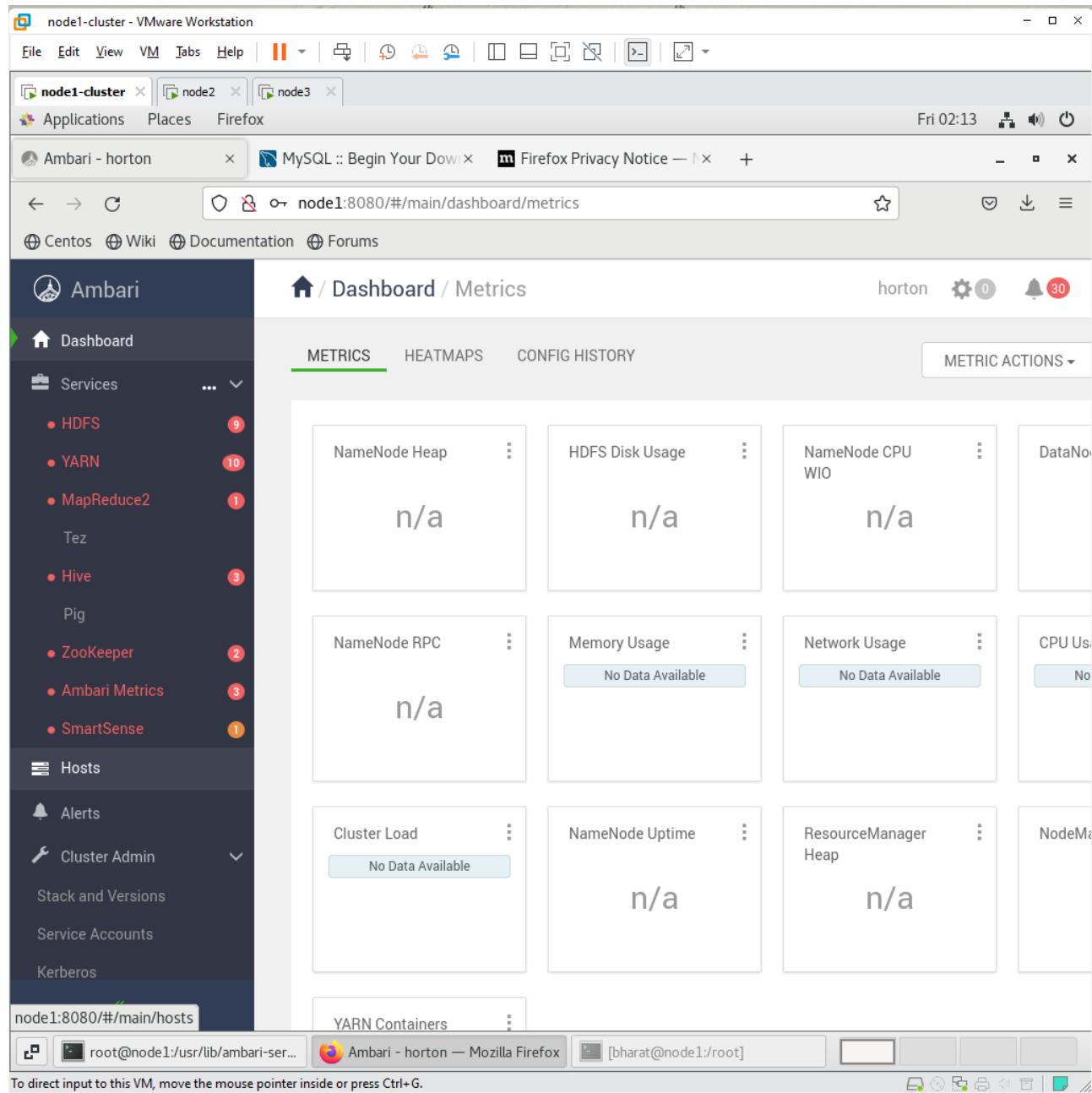
Step36: Click on NEXT.

The screenshot shows a VMware Workstation window titled "node1-cluster - VMware Workstation". Inside, a Firefox browser is open to the "Ambari - Cluster Install Wizard" at "node1:8080/#/installer/step9". The left sidebar lists steps 1 through 10, with steps 1-8 checked off and step 9 highlighted. The main content area is titled "Install, Start and Test" and displays a progress bar at 100% overall. It shows two hosts: node1.bharat.com and node2.bharat.com, both with 100% status and "Warnings encountered" messages. A message box at the bottom states "Installed and started the services with some warnings." At the bottom right is a green "NEXT →" button. The bottom of the screen shows the VMware interface with tabs for "root@node1:/usr/lib/ambari-ser...", "Ambari - Cluster Install Wizard ...", and "[bharat@node1:/root]".

Step37:- Click on COMPLETE.

The screenshot shows a Firefox browser window titled "node1-cluster - VMware Workstation". The address bar shows "node1:8080/#/installer/step10". The main content is the "Ambari - Cluster Install Wizard" interface. On the left, a vertical list of 10 steps is shown, all marked as completed with green checkmarks. The steps are: Get Started, Select Version, Install Options, Confirm Hosts, Choose Services, Assign Masters, Assign Slaves and Clients, Customize Services, Review, Install, Start and Test, and Summary. The "Summary" section on the right provides a quick overview of the cluster setup. It states: "The cluster consists of 2 hosts", "2 warnings", and lists the installed master services: "SNameNode installed on node2.bharat.com", "NameNode installed on node1.bharat.com", "ResourceManager installed on node1.bharat.com", "History Server installed on node2.bharat.com", and "HiveServer2 installed on node2.bharat.com". Below this, it says "Starting services failed". At the bottom right of the wizard interface is a large green button labeled "COMPLETE →". The browser's status bar at the bottom shows the URL "root@node1:/usr/lib/ambari-server" and the title "Ambari - Cluster Install Wizard ...".

Step38:- See the Dashboard.



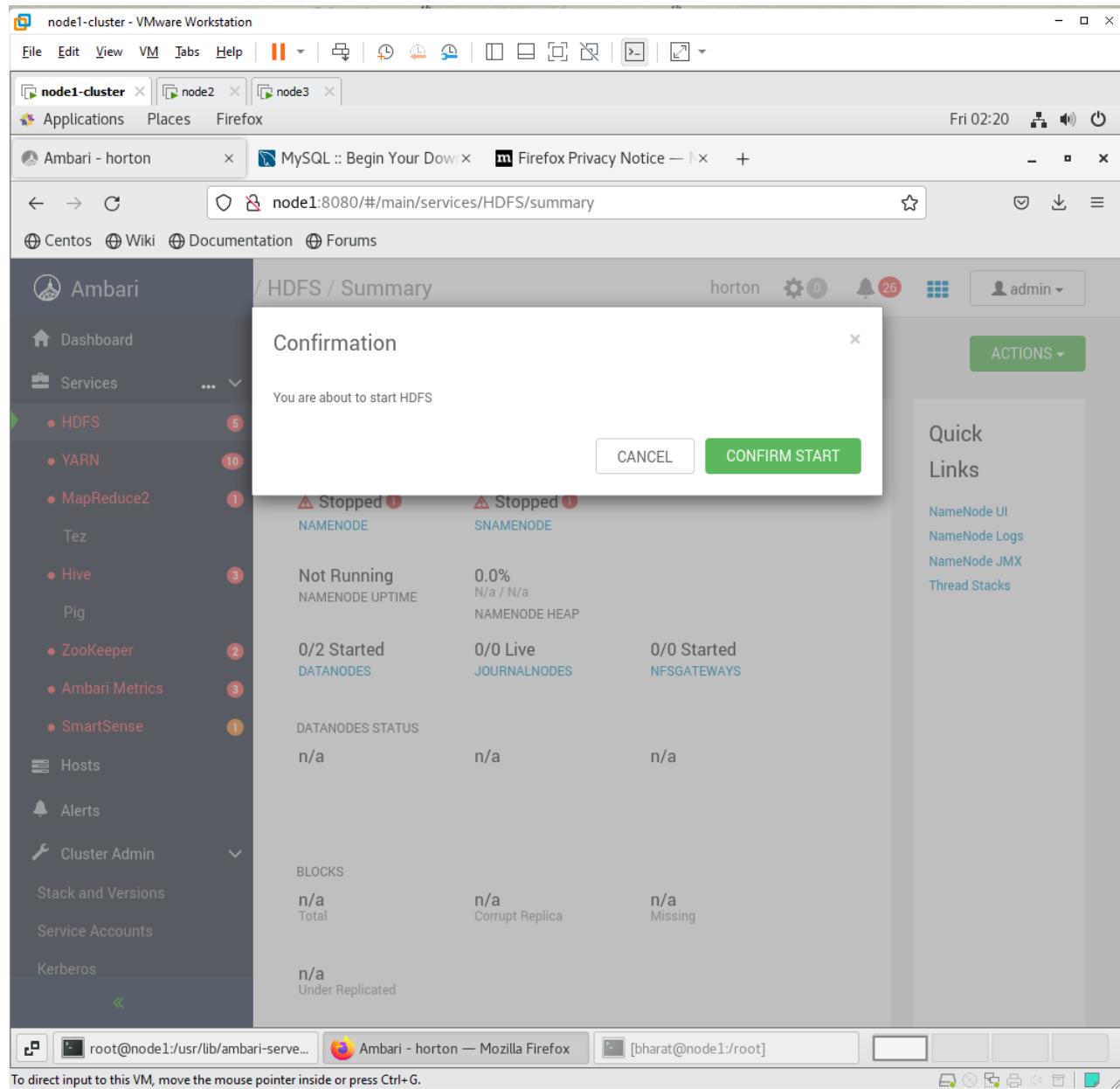
Step39:-Select HDFS and click on action button then start the services

The screenshot shows the Ambari web interface running in a Firefox browser on a node1-cluster VM. The left sidebar navigation bar includes links for Dashboard, Services (selected), Hosts, Alerts, Cluster Admin, Stack and Versions, Service Accounts, and Kerberos. The Services section lists several services: HDFS (5 issues), YARN (10 issues), MapReduce2 (1 issue), Tez, Hive (3 issues), Pig, ZooKeeper (2 issues), Ambari Metrics (3 issues), and SmartSense (1 issue). The HDFS service page is currently selected, showing the following details:

- HDFS / Summary**: The page title.
- ACTIONS**: A dropdown menu containing options like Start, Stop, Restart All, and Move NameNode.
- NAMENODE**: Status: Stopped (1 issue). Uptime: Not Running. Data: 0/2 Started DATANODES.
- SNAMENODE**: Status: Stopped (1 issue). Uptime: 0.0%. Data: 0/0 Live JOURNALNODES.
- DATANODES STATUS**: Total: n/a. Corrupt Replica: n/a. Missing: n/a.
- BLOCKS**: Total: n/a. Corrupt Replica: n/a. Missing: n/a.
- Under Replicated**: Total: n/a.

The bottom of the browser window shows the URL as `node1:8080/#/main/services/HDFS/summary` and the status bar indicates the user is root at [bharat@node1:/root].

Step40:- Click on CONFIRM START.



Step41:- See Only.

The screenshot shows a Firefox browser window with three tabs: "Ambari - horton", "MySQL :: Begin Your Dow", and "Firefox Privacy Notice". The main content is the Ambari HDFS / Summary page. It displays a list of background operations:

Operations	Status	User	Start Time	Duration
Start HDFS	46%	admin	Today 02:21	2s
Stop HDFS	100%	admin	Today 02:20	3s
Start HDFS	100%	admin	Today 02:17	2m 2s
Start YARN	100%	admin	Today 02:16	5s
Start Services	100%	admin	Today 02:10	35s
Install Services	100%	admin	Today 02:05	5m 8s

Below the table, there is a checkbox for "Do not show this dialog again when starting a background operation" and a green "OK" button. At the bottom left, there is a sidebar with "Stack and Versions", "Service Accounts", and "Kerberos" sections. The "Kerberos" section shows "n/a" under "Total", "Corrupt Replica", and "Missing", and "Under Replicated" under "n/a".

Step42:- Select YARN and click on ACTION button and start services.

The screenshot shows the Ambari web interface running in a Firefox browser. The URL is `node1:8080/#/main/services/YARN/summary`. The sidebar on the left has 'YARN' selected. The main content area displays YARN service status: Timeline Service V1.5 (Stopped), ResourceManager (Stopped), Timeline Service V2.0 Reader (Stopped), YARN Registry DNS (Stopped), NodeManagers (0/2 Started), and Yarn Clients (2 Installed). Below this, there's a 'Not Running' section for the ResourceManager. The 'NODEMANAGERS STATUS' table shows three rows: Active (n/a), Lost (n/a), and Unhealthy (n/a). The 'RESCUEMANAGER HEAD' table shows two rows: Rebooted (n/a) and Decommissioned (n/a). A context menu is open over the YARN section, listing actions such as Start, Stop, Refresh YARN Capacity Scheduler, and Restart All.

Step43:-YARN→ Click on OK.

The screenshot shows the Ambari interface on a Linux desktop. The title bar includes tabs for 'node1-cluster', 'node2', 'node3', 'Applications', 'Places', and 'Firefox'. The system tray shows the date as 'Fri 02:23' and various icons. The main window is titled 'Ambari - Horton' and 'YARN / Summary'. A modal dialog box is open, titled 'Background Operations', showing a list of 7 running operations:

Operations	Status	User	Start Time	Duration
Start YARN	44%	admin	Today 02:22	6s
Start HDFS	100%	admin	Today 02:21	17s
Stop HDFS	100%	admin	Today 02:20	3s
Start HDFS	100%	admin	Today 02:17	2m 2s
Start YARN	100%	admin	Today 02:16	5s
Start Services	100%	admin	Today 02:10	35s

Below the table, there is a checkbox labeled 'Do not show this dialog again when starting a background operation' and a green 'OK' button. The background of the main window shows 'Stack and Versions' information: Service Accounts (n/a, Rebooted), Kerberos (n/a, Decommissioned), and Resource Manager (n/a/n/a, REPLICATOR). The bottom status bar shows the terminal prompt 'root@node1:/usr/lib/ambari-server...' and the Firefox title bar 'Ambari - horton — Mozilla Firefox'. A note at the bottom says 'To direct input to this VM, move the mouse pointer inside or press Ctrl+G.'

After that do the all reaming process same for all module.

Step44:- MapReduce2

The screenshot shows the Ambari - Horton interface running in a Firefox browser. The title bar indicates the cluster name is 'node1-cluster' and it's connected to nodes node2 and node3. The main content area displays a 'Background Operations' dialog. The dialog lists six operations under '1 Background Operation Running':

Operations	Status	User	Start Time	Duration
Start MapReduce2	78% (blue progress bar)	admin	Today 02:29	2s
Start YARN	100% (red progress bar)	admin	Today 02:22	6m 44s
Start HDFS	100% (green progress bar)	admin	Today 02:21	17s
Stop HDFS	100% (green progress bar)	admin	Today 02:20	3s
Start HDFS	100% (green progress bar)	admin	Today 02:17	2m 2s
Start YARN	100% (red progress bar)	admin	Today 02:16	5s

Below the table, there is a checkbox labeled 'Do not show this dialog again when starting a background operation' and a green 'OK' button. The bottom of the dialog shows a note about the Apache License, Version 2.0, and links to sources and authors. The browser status bar at the bottom shows the URL as 'root@node1:/usr/lib/ambari-server...' and the title as 'Ambari - horton — Mozilla Firefox'. A terminal window at the bottom also shows the user 'bharat' at node1.

Step45:-Hive

The screenshot shows the Ambari web interface running in a Firefox browser. The title bar indicates the browser is on a MySQL page. The main content area displays a 'Background Operations' dialog box. The dialog shows one operation is running: 'Start Hive' at 58% completion. Other completed operations listed are 'Start MapReduce2', 'Start YARN', 'Start HDFS', 'Stop HDFS', and 'Start HDFS' again. The dialog includes an 'OK' button and a checkbox for not showing it again.

Operations	Status	User	Start Time	Duration
Start Hive	58%	admin	Today 02:31	4s
Start MapReduce2	100%	admin	Today 02:29	1m 21s
Start YARN	100%	admin	Today 02:22	6m 44s
Start HDFS	100%	admin	Today 02:21	17s
Stop HDFS	100%	admin	Today 02:20	3s
Start HDFS	100%	admin	Today 02:17	2m 2s

Step46:-ZooKeeper

The screenshot shows the Ambari web interface running on a Firefox browser within a VMware Workstation window. The title bar indicates the session is on 'node1-cluster - VMware Workstation'. The browser tabs show 'node1-cluster', 'node2', and 'node3'. The main content area displays the 'Background Operations' dialog for the ZooKeeper service. The dialog lists one operation: 'Start ZooKeeper', which is currently running at 100% completion by the user 'admin' at 'Today 03:08'. There are also five other operations listed that have completed successfully. A checkbox at the bottom left of the dialog allows users to skip this message again, and a green 'OK' button is at the bottom right. The Ambari navigation bar at the top includes links for Applications, Places, and Firefox, along with system status icons like battery level and signal strength. The bottom of the screen shows the Linux terminal prompt 'root@node1:/usr/lib/ambari-server...' and the Firefox status bar.

Operations	Status	User	Start Time	Duration
✓ Start ZooKeeper	100%	admin	Today 03:08	3s
● Start Hive	100%	admin	Today 02:49	14m 2s
● Start Hive	100%	admin	Today 02:31	14m 45s
✓ Start MapReduce2	100%	admin	Today 02:29	1m 21s
● Start YARN	100%	admin	Today 02:22	6m 44s
✓ Start HDFS	100%	admin	Today 02:21	17s

Step47:-Ambari Metrics

The screenshot shows a VMware Workstation interface with a single VM named "node1-cluster". Inside the VM, a Firefox browser is open to the Ambari Metrics Summary page. The page lists several background operations:

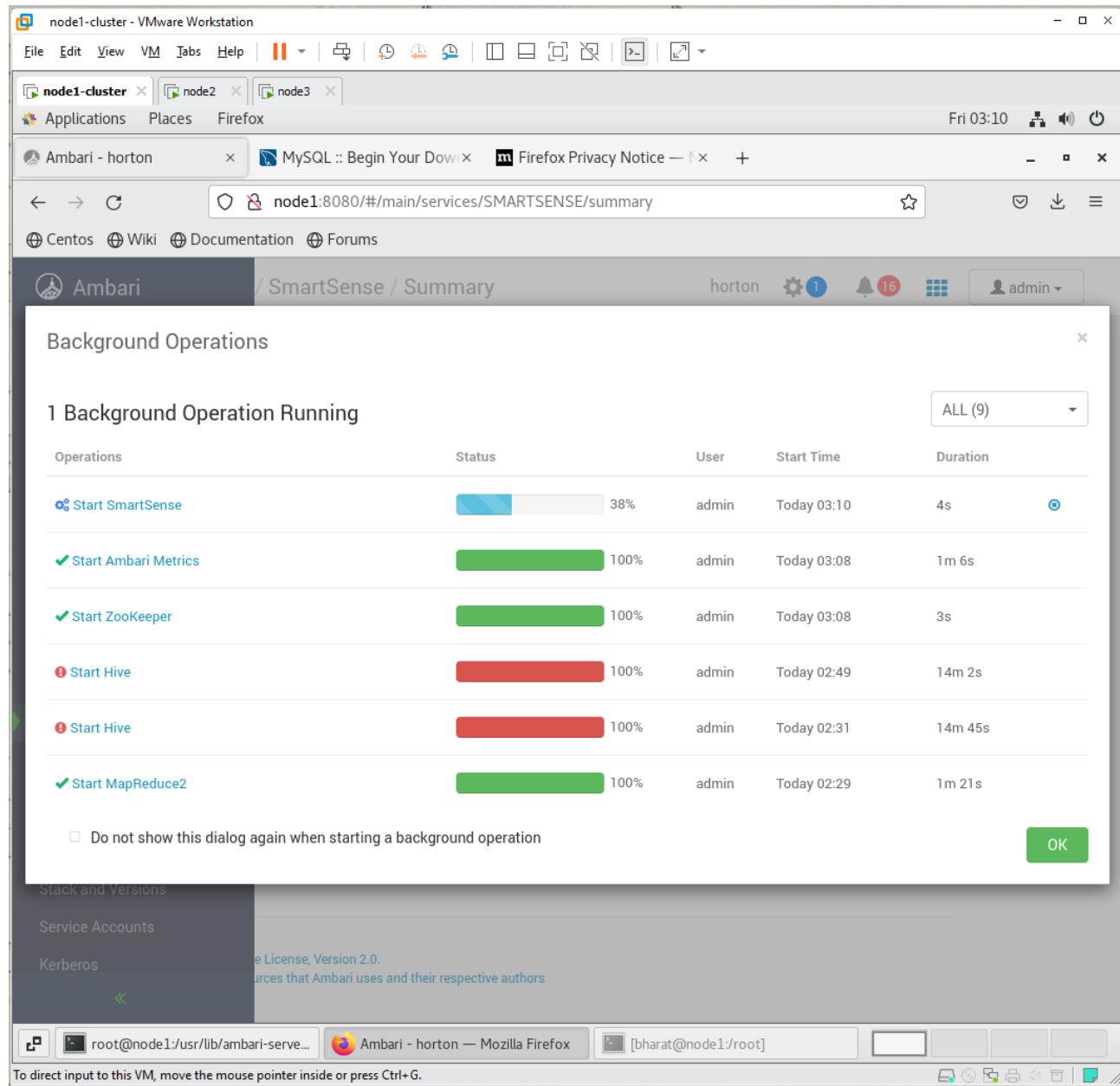
Operations	Status	User	Start Time	Duration
Start Ambari Metrics	17%	admin	Today 03:08	1s
Start ZooKeeper	100%	admin	Today 03:08	3s
Start Hive	100%	admin	Today 02:49	14m 2s
Start Hive	100%	admin	Today 02:31	14m 45s
Start MapReduce2	100%	admin	Today 02:29	1m 21s
Start YARN	100%	admin	Today 02:22	6m 44s

At the bottom of the dialog, there is a checkbox labeled "Do not show this dialog again when starting a background operation" and a green "OK" button.

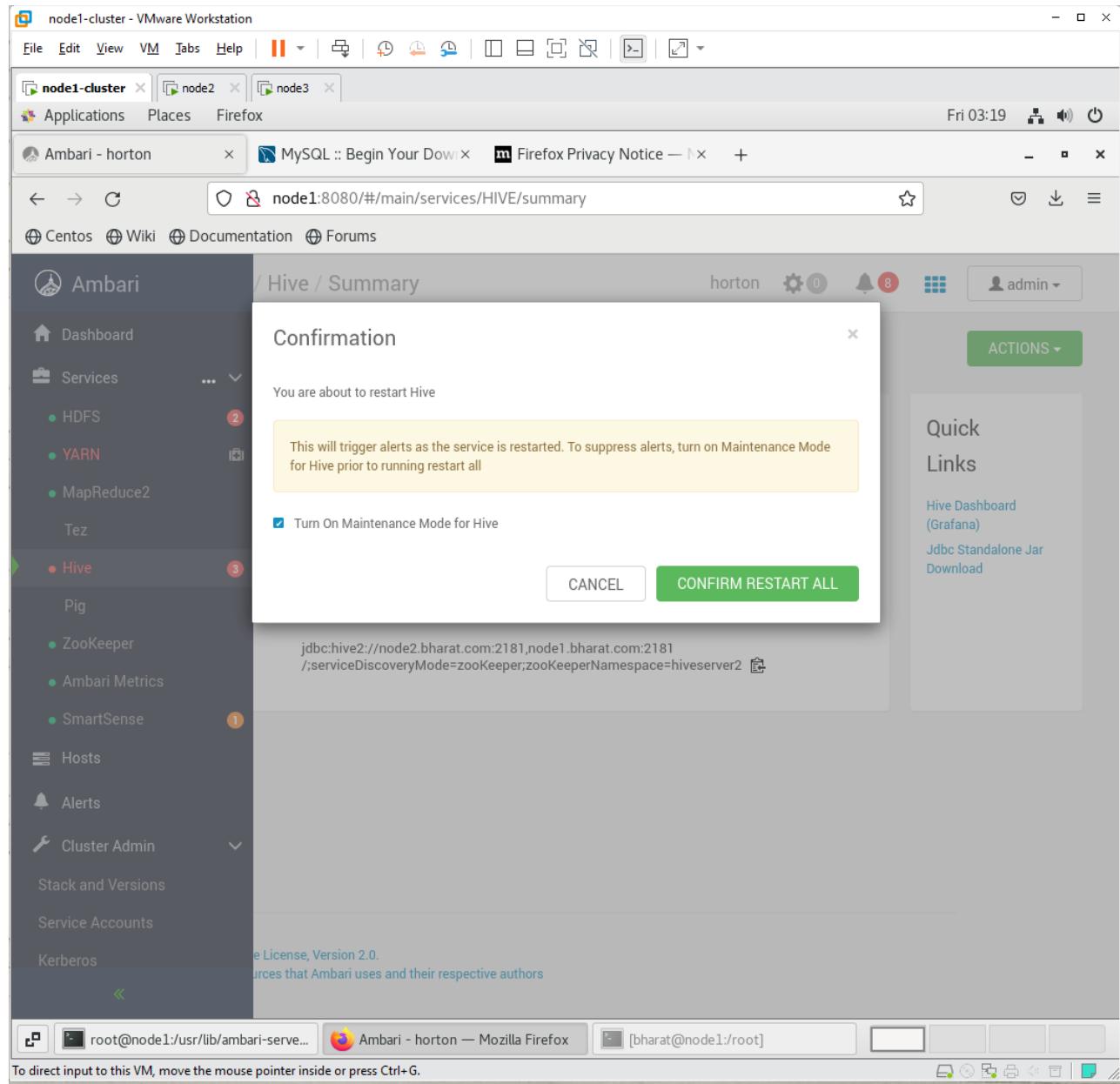
The browser's address bar shows the URL: node1:8080/#/main/services/AMBARI_METRICS/summary

The VMware toolbar at the bottom includes icons for clipboard, copy, paste, cut, and others.

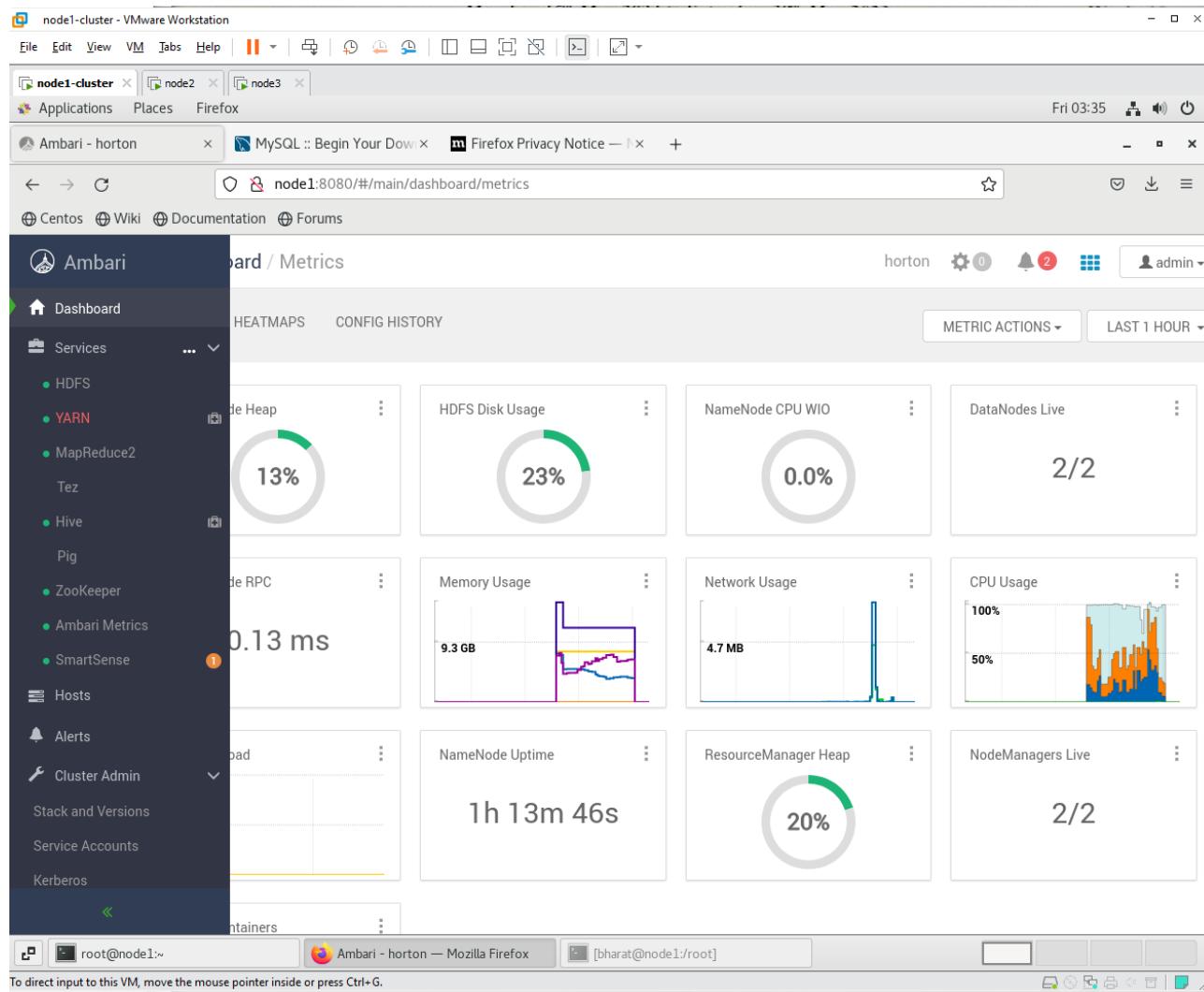
Step48:-SmartSense



Step49:- Then click on CONFIRM RESTART ALL.



Step50:- Successfully Completed Ambari installation.



Installation process step by step.

Node1-(cluster server)

```
yum update -y
yum upgrade -y
hostnamectl set-hostname node1.bharat.com
init 6
yum -y install httpd
systemctl status httpd
systemctl start httpd
systemctl enable httpd
systemctl status httpd
yum -y install repolist*
systemctl stop firewalld.service
systemctl disable firewalld.service
getenforce
vim /etc/selinux/config
getenforce
init 6
vim /etc/hosts
    192.168.20.158 node1 node1.bharat.com
    192.168.20.159 node2 node2.bharat.com
    192.168.20.160 node3 node3.bharat.com
:wq
rsync /etc/hosts root@node2:/etc/hosts
rsync /etc/hosts root@node3:/etc/hosts

cd /var/www/html
ls
tar -xvf /root/hdp3.1.0/ambari-2.7.3.0-centos7.tar.gz
ls
cd ambari/
ls
cd centos7/2.7.3.0-139
ls
ls -al
cp ambari.repo /etc/yum.repos.d/
ll /etc/yum.repos.d/
cd /var/www/html/
ls
vim /etc/yum.repos.d/ambari.repo
baseurl=http://node1.bharat.com/ambari/centos7/2.7.3.0-139/
gpgcheck=0
:wq
createrepo ambari/
yum repolist
```

```
yum update
yum -y install ambari-server.x86_64
cd
ambari-server setup -s
ambari-server start
rsync /etc/yum.repos.d/ambari.repo root@node2:/etc/yum.repos.d
rsync /etc/yum.repos.d/ambari.repo root@node3:/etc/yum.repos.d
ambari-server status
ambari-server start
yum -y install ambari-agent.x86_64
ambari-agent status
ambari-agent start
vim /etc/ambari-agent/conf/ambari-agent.ini
[server]
hostname=node1.bharat.com
ambari-agent status
After that we can go to the webserver and put there
InChrome: node1:8080
username- admin
password- admin
then tar another 2 packages
HDP-3.1.0.0
HDP-UTILS-1.1.0
tar -xvf /root/hdp3.1.0/HDP-3.1.0.0-centos7-rpm.tar.gz
tar -xvf /root/hdp3.1.0/HDP-UTILS-1.1.0.22-centos7.tar.gz
createrepo HDP
createrepo HDP-UTILS
cp HDP/centos7/3.1.0.0-78/hdp.repo /etc/yum.repos.d/
yum repolist
vim /etc/yum.repos.d/hdp.repo
[HDP-3.1.0.0]
name=HDP Version - HDP-3.1.0.0
baseurl=http://node1.bharat.com/HDP/centos7/3.1.0.0-78/
gpgcheck=0

[HDP-UTILS-1.1.0.22]
name=HDP-UTILS Version - HDP-UTILS-1.1.0.22
baseurl=http://node1.bharat.com/HDP-UTILS/centos7/1.1.0.22/
gpgcheck=0

rsync /etc/yum.repos.d/ambari.repo root@node2:/etc/yum.repos.d
rsync /etc/yum.repos.d/ambari.repo root@node3:/etc/yum.repos.d
```

```
[root@node1 ~]# cd /usr/lib/ambari-server/web/javascripts/
[root@node1 javascripts]# rpm -i /root/Downloads/mysql-connector-j-8.0.33-1.el7.noarch.rpm
```

then copy the ambari path on

```
ambari-server setup --jdbc-db=mysql --jdbc-driver=/usr/share/java/mysql-connector-java.jar
```

troubleleshooting

go to the below path

```
cd /usr/lib/ambari-server/web/javascripts
```

and take backup app.js file

```
cp app.js app.js_backup
```

```
*****
```

```
39889  /**
39890  * Use Local Repo if some network issues exist
39891 */
39892 onNetworkIssuesExist: function () {
39893   if (this.get('networkIssuesExist')) {
39894     this.get('content.stacks').forEach(function (stack) {
39895       stack.setProperties({
39896         usePublicRepo: false,
39897         useLocalRepo: true
39898       });
39899       stack.cleanReposBaseUrls();
39900     });
39901   }
39902 }.observes('networkIssuesExist'),
```

Replace the above stanzas with the following:

```
/**
 * Use Local Repo if some network issues exist
 */
onNetworkIssuesExist: function () {
  if (this.get('networkIssuesExist')) {
    this.get('content.stacks').forEach(function (stack) {
      if(stack.get('useLocalRepo') != true){
        stack.setProperties({
          usePublicRepo: false,
          useLocalRepo: true
        });
        stack.cleanReposBaseUrls();
      }
    });
  }
}.observes('networkIssuesExist'),
```

```
*****
```

Reset the Ambari Server:

```
ambari-server stop  
ambari-server reset  
ambari-server start
```

Node2:- Installation Process

```
yum update -y  
yum upgrade -y  
hostnamectl set-hostname node2.bharat.com  
init 6  
systemctl stop firewalld.service  
systemctl disable firewalld.service  
vim /etc/selinux/config  
    Selinux=disabled  
    :wq  
init 6  
yum install -y ambari-agent.x86_64  
ambari-agent status  
ambari-agent start  
ambari-agent status  
vim /etc/ambari-agent/conf/ambari-agent.ini  
[server]  
hostname=node1.bharat.com  
ambari-agent status
```

Node3:- Installation Process

```
yum update -y  
yum upgrade -y  
hostnamectl set-hostname node3.bharat.com  
init 6  
systemctl disable firewalld.service  
vi /etc/selinux/config  
getenforce  
init 6  
systemctl stop firewalld.service  
systemctl disable firewalld.service  
systemctl status firewalld.service  
cat /etc/hosts  
yum install -y ambari-agent.x86_64  
vim /etc/ambari-agent/conf/ambari-agent.ini  
[server]  
hostname=node1.bharat.com  
ambari-agent status  
ambari-agent start  
ambari-agent status
```