

mod08_ex02: Installing Zeppelin

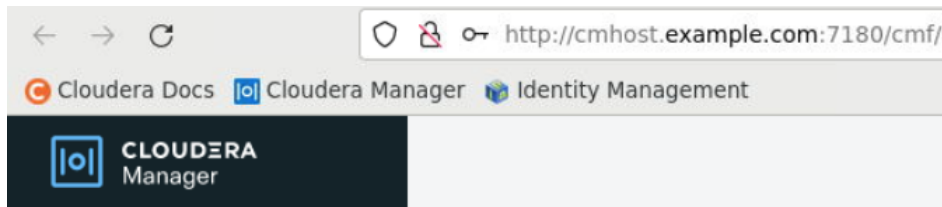
The purpose of this exercise is to install Zeppelin. Zeppelin is a notebook tool which is configured with interpreters. Different interpreters allow for connections to the Linux shell, a jdbc connector to a RDBMS or Hive/Impala, or a connector to Livy for the execution of Spark commands.

Reference Information

- TBD

1. Log into Cloudera Manager as the administrative user, `allan_admin`.

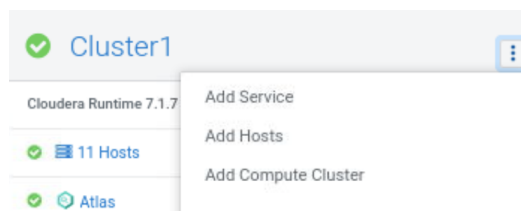
1.1 On the Firefox bookmark toolbar select Cloudera Manager.



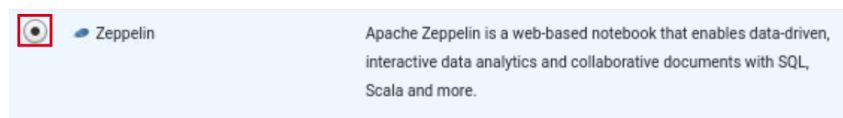
1.2 Login as the user training with password `<password>`.

2. Install Zeppelin.

2.1 From Cloudera Manager Home select Action. Select Add Service.



2.2 On Add Service scroll down. Select Zeppelin. Click Continue.



2.3 On Assigned Roles click Server.

Assign Roles

You can customize the role assignments for your new service here, but note that if assignments are made incorrectly, such as assigning too many roles to a single host, performance will suffer.

You can also view the role assignments by host. [View By Host](#)

Server × 1 New

worker-3.example.com

2.4 On Hosts Selected select the option for edge.example.com. Click OK.

1 Hosts Selected



Select hosts for a new or existing role. The host list is filtered to remove hosts that are not valid candidates; these include hosts that are unhealthy, members of other clusters, or have an incompatible version of the software installed on them.

 Enter hostnames: host01, IP addresses or rack

Hostname	IP Address	Rack	Cores	Physical Memory	Existing Roles	Added Roles
<input type="checkbox"/> cmhost.example.com	10.0.0.100	/default	4	31.1 GiB	JN LB HS KTR AM AP ES HM RM SM S	
<input checked="" type="checkbox"/> edge.example.com	10.0.0.106	/default	2	7.7 GiB	AS G G G HB... HB... G G G RT RU G G G	ZS

2.5 Return to Assign Roles. Ensure only edge.example.com is selected. Click Continue.

Assign Roles

You can customize the role assignments for your new service here, but note that if assignments are made incorrectly, such as assigning too many roles to a single host, performance will suffer.

You can also view the role assignments by host. [View By Host](#)

Server × 1 New

 edge.example.com

2.6 Review changes. Click Continue.

Review Changes

Zeppelin Authentication Method
☐ Zeppelin (Service-Wide) ⓘ

zeppelin.authentication.method.kerberos
zeppelin.authentication.method.kerberos

Enable TLS/SSL for Zeppelin Server
☐ Zeppelin Server Default Group ⓘ

zeppelin.ssl
zeppelin.ssl_enabled

Zeppelin Server TLS/SSL Server JKS Keystore File Location
Zeppelin Server Default Group ⓘ
 {{CM_AUTO_TLS}}



zeppelin.ssl.keystore.path
zeppelin.ssl.keystore_location

Note: TLS and Kerberos will be automatically configured.

2.7 On Command Details monitor the install. When Finished click Continue.

Command Details

First Run Command

Status ✔ **Finished** Context [Zeppelin](#)  Oct 16, 9:17:06 AM  83.53s

Finished First Run of the following services successfully: Zeppelin.

▼ **Completed 1 of 1 step(s).**

☒ Show All Steps ☐ Show Only Failed Steps ☐ Show Only Running Steps

> ✔ Run a set of services for the first time.	Oct 16, 9:17:06 AM	83.53s
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2.8 On Summary click Finish.

Summary

- ✔ Your new service is installed and configured on your cluster.
- ⓘ **Note:** You may still have to start your new service. It is recommended that you restart any dependency services with outdated configurations before doing so. You can perform these actions on the main page by clicking **Finish** below.

3. Configure Zeppelin.

3.1 Return to Cloudera Manager Home. Select Zeppelin. Select Configuration.

✔ Cluster1 ⋮

Cloudera Runtime 7.1.7 (Parcels)

✔  8 Hosts 🔧 3

✔  Zeppelin ⋮

3.2 Search for "admin.group". All members of this group will have administrator privileges to Zeppelin.

✔ Zeppelin
Actions ▾

Status
Instances
Configuration
Commands
Charts Library
Audits
Web UI ▾
Quick Links ▾

Q admin.group

Filters

▼ **SCOPE**

Zeppelin (Service-Wide) 0

Zeppelin Server

Admin Group
Zeppelin Server Default Group

zeppelin.admin.group

🔍 zeppelin.admin.group

admins

The user `allan_admin` is a member of LDAP group `admins`. The user `allan_admin` will have full admin privileges to Zeppelin.

3.3 Return to Cloudera Manager Home. Select `hdfs`. Select Configuration.

	Zeppelin	
	hbase	
	hdfs	
	hive	

3.4 Search for "`core-site.xml`". This will find Cluster-wide Advanced Configuration Snippet (Safety Valve) for `core-site.xml`. Add the proxyuser properties for groups and for hosts. These are required to allow the service user `zeppelin` to access hadoop from any group or any host. Click Save Changes

Filters

SCOPE

- hdfs (Service-Wide) 3
- Balancer 0
- DataNode 0
- Gateway 0
- HttpFS 1
- JournalNode 0
- NFS Gateway 0
- NameNode 0
- SecondaryNameNode 0
- Failover Controller 0

CATEGORY

- Advanced 3
- Checkpointing 0
- Cloudera Navigator 0
- Erasure Coding 0
- High Availability 0
- Logs 0

Cluster-wide Advanced Configuration Snippet (Safety Valve) for `core-site.xml`

hdfs (Service-Wide)

`core_site_safety_valve`

Name: `hadoop.proxyuser.zeppelin.groups`

Value: `*`

Description:

☐ Final

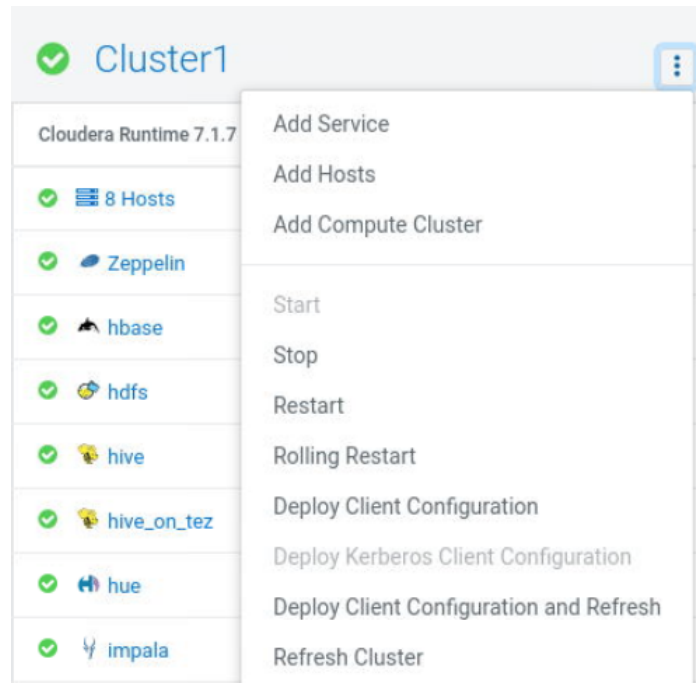
Name: `hadoop.proxyuser.zeppelin.hosts`

Value: `*`

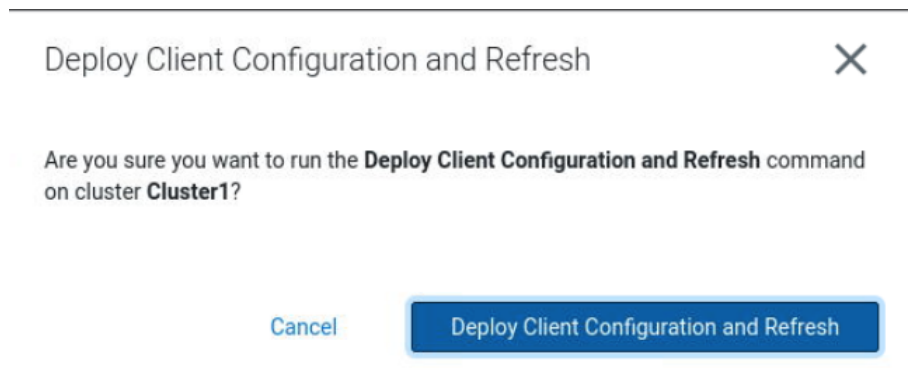
Description:

```
hadoop.proxyuser.zeppelin.groups=*
hadoop.proxyuser.zeppelin.hosts=*
```

3.5 On Cloudera Manager select Actions. Select Restart. Click Restart. When Finished click Close.

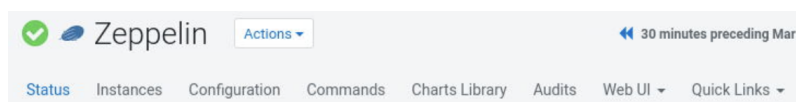


3.6 On Cloudera Manager Home select Action Deploy Client Configuration and Refresh. Click Client Configuration and Refresh.



4. Validate Zeppelin.

4.1 Select Zeppelin. Select Zeppelin Server Web UI.



4.2 Log into Zeppelin as the administrative user, `allan_admin`, with password `<password>`. The connection light next to login will turn from red to green when you login. Zeppelin is now using PAM and sssd to connect to IPA LDAP.

Login

User Name


allan_admin

Password

••••••••

Login




4.3 On Zeppelin Welcome verify you are logged in as the administrative user, `allan_admin`.





 **Zeppelin** Notebook ▾ Job ▾




allan_admin ▾


Welcome to Zeppelin!

Zeppelin is web-based notebook that enables interactive data analytics.
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 Create new note

-  Apache Spark in 5 Minutes
-  Credit Fraud Detection ML
-  R (SparkR)
-  Zeppelin Tutorial (Basic Features)

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Any contribution are welcome!
 Mailing list
 Issues tracking
 Github



5. Leave Zeppelin open. Proceed to the next exercise.