Module 2: Ambari Architecture / Installations

Hands-on

Version 1.0

Setting Up Repository (Offline Installation)

1. Download the tarball for Ambari rpms from below URL (CentOS 6)

    a. http://public-repo-1.hortonworks.com/ambari/centos6/2.x/updates/2.1.2.1/ambari-2.1.2.1-centos6.tar.gz (Tarball)

    b. http://public-repo-1.hortonworks.com/ambari/centos6/2.x/updates/2.1.2.1/ambari.repo (Repo File)

    c. http://public-repo-1.hortonworks.com/ambari/centos6/2.x/updates/2.1.2.1 (base URL)

2. Similarly Download HDP repository from web

    a. HDP

        i. http://public-repo-1.hortonworks.com/HDP/centos6/2.x/updates/2.3.2.0

        ii. http://public-repo-1.hortonworks.com/HDP/centos6/2.x/updates/2.3.2.0/hdp.repo

        iii. http://public-repo-1.hortonworks.com/HDP/centos6/2.x/updates/2.3.2.0/HDP-2.3.2.0-centos6-rpm.tar.gz

    b. HDP UTILS

        i. http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/centos6

        ii. http://public-repo-1.hortonworks.com/HDP-UTILS-1.1.0.20/repos/centos6/HDP-UTILS-1.1.0.20-centos6.tar.gz

3. Setting up the Offline Repo

    a. Folder for creating mirror Server
        i. mkdir -p /var/www/html/

    b. Go that directory and untar the tarball which you have download like below:
        i. tar –xzvf ambari-2.1.2.1-centos6.tar.gz
        ii. tar –xzvf HDP-2.3.2.0-centos6-rpm.tar.gz
        iii. tar –xzvf HDP-UTILS-1.1.0.20-centos6.tar.gz

    c. Now open the repo file for all the three (ambari / HDP/HDP-Util) and update the base URL in it.
        i. http://${ambari_host}/ambari-2.1.2.1/centos6
        ii. http://${ambari_host}/hdp/HDP/centos6/2.x/updates/2.3.2.0
        iii. http://${ambari_host}/hdp/HDP-UTILS-1.1.0.20/repos/centos6

    d. Now move the repo files inside /etc/yum.repos.d/ directory
        i. mv ambari.repo /etc/yum.repos.d
        ii. mv hdp.repo /etc/yum/repos.d

Ambari Installation (Online)

Step 1: Login as root and run the below commands

1. Download the ambari repo to do the online installation:
   wget -nv http://public-repo-1.hortonworks.com/ambari/centos6/2.x/updates/2.1.2.1/ambari.repo -O /etc/yum.repos.d/ambari.repo

2. Check the repolist if its working file with below command
    a. yum repolist

3. Install the ambari server on the ambari node
    a. yum install ambari-server

Step 2: Run the set up commands to setup Ambari on ambari server

1. Run the below command to set up the ambari server
    a. ambari-server setup

2. If you don't want to use exiting database (use default db which is postgre)
    a. Select n while asking for Enter advanced database configuration

3. Else you can select y to use your existing database

Step 3

1. Run the following command on the Ambari Server host:
    a. ambari-server start

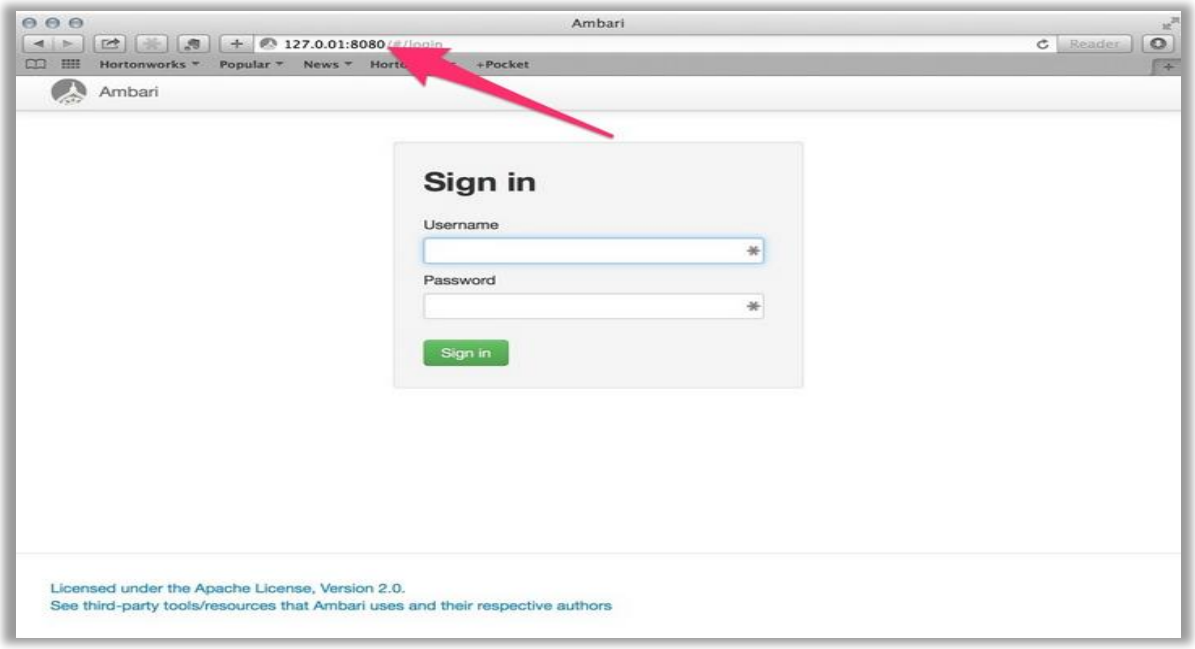
2. To check the Ambari Server processes
    a. ambari-server status

3. To stop the Ambari Server
    a. ambari-server stop

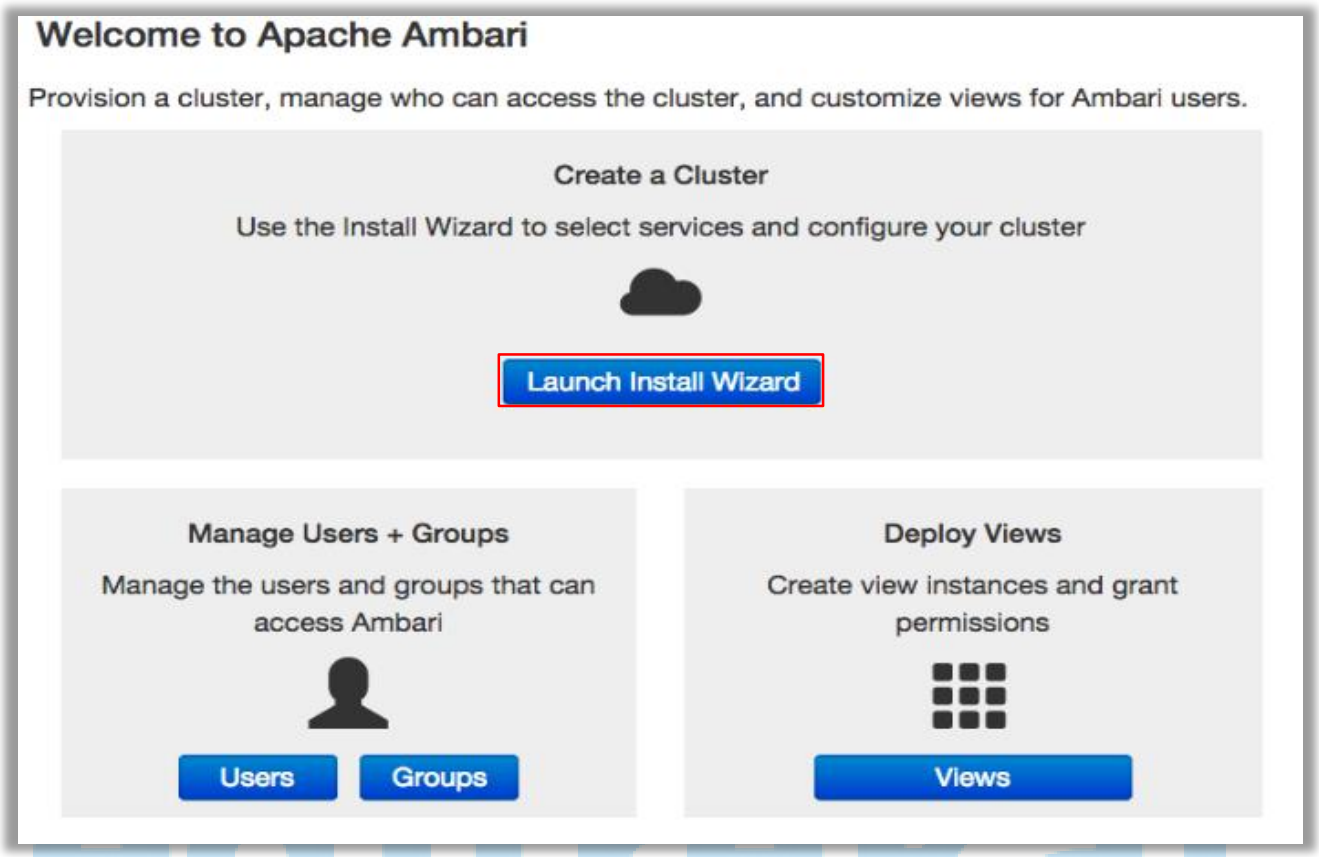
Step 4: Open Ambari web-console: http://${ambari-host}:8080

Deploying HDP Cluster

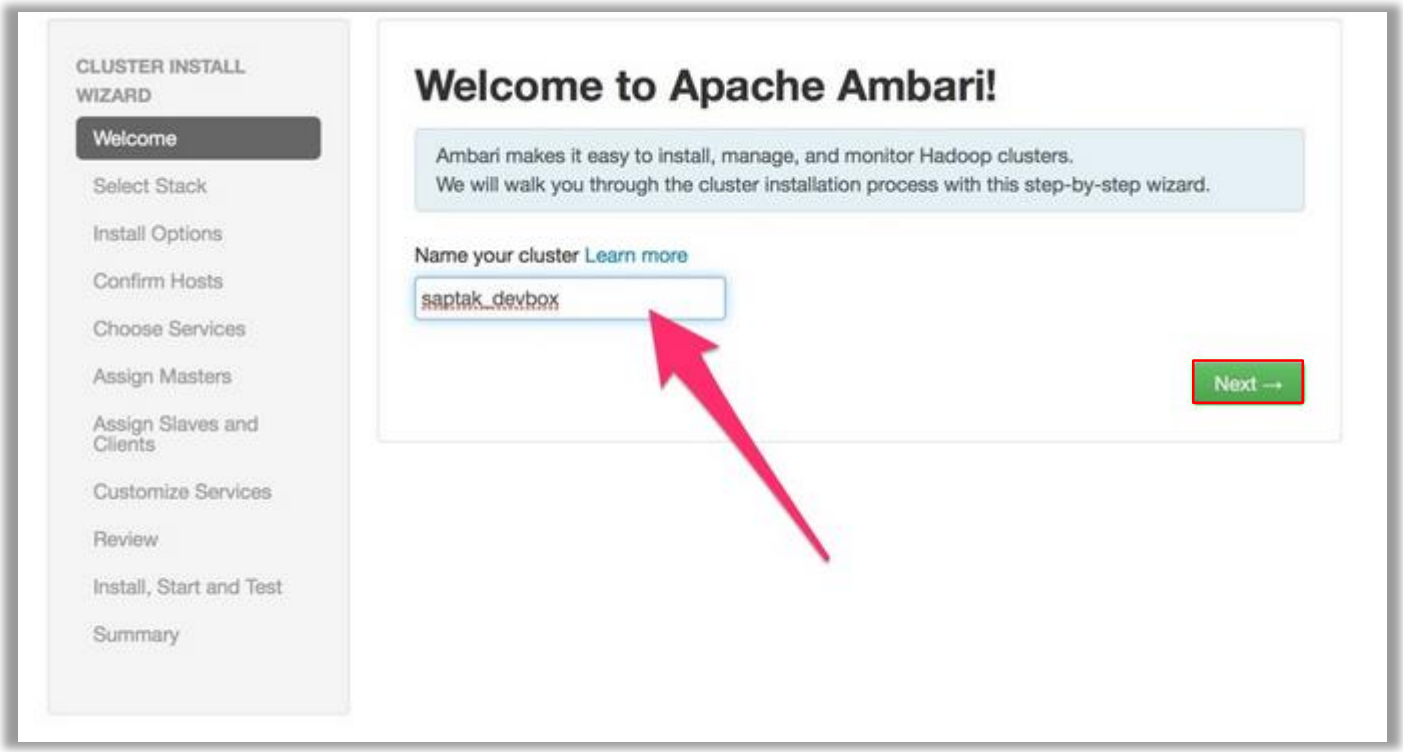
Step 1: Login Screen: admin/admin

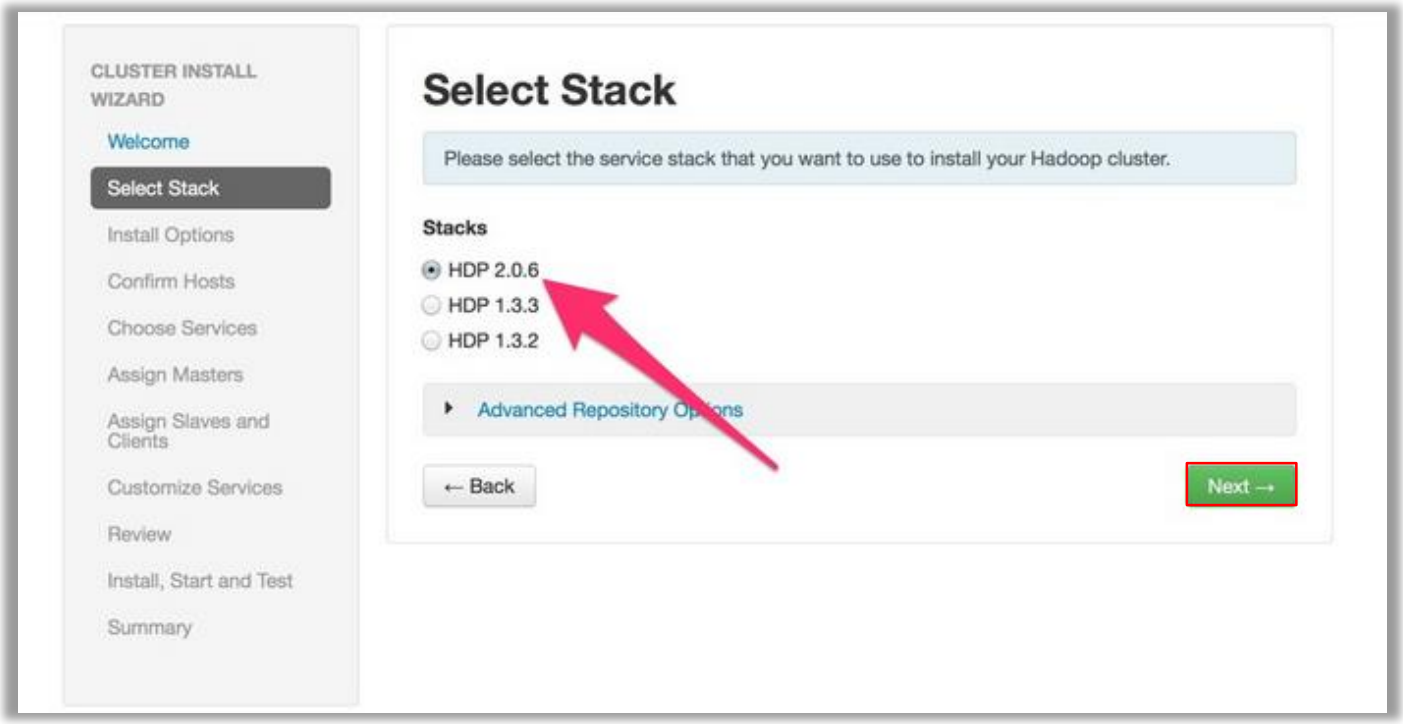


Step 2: Now Launch the Install Wizard to Create Cluster



Step 3: Enter the Name of the cluster

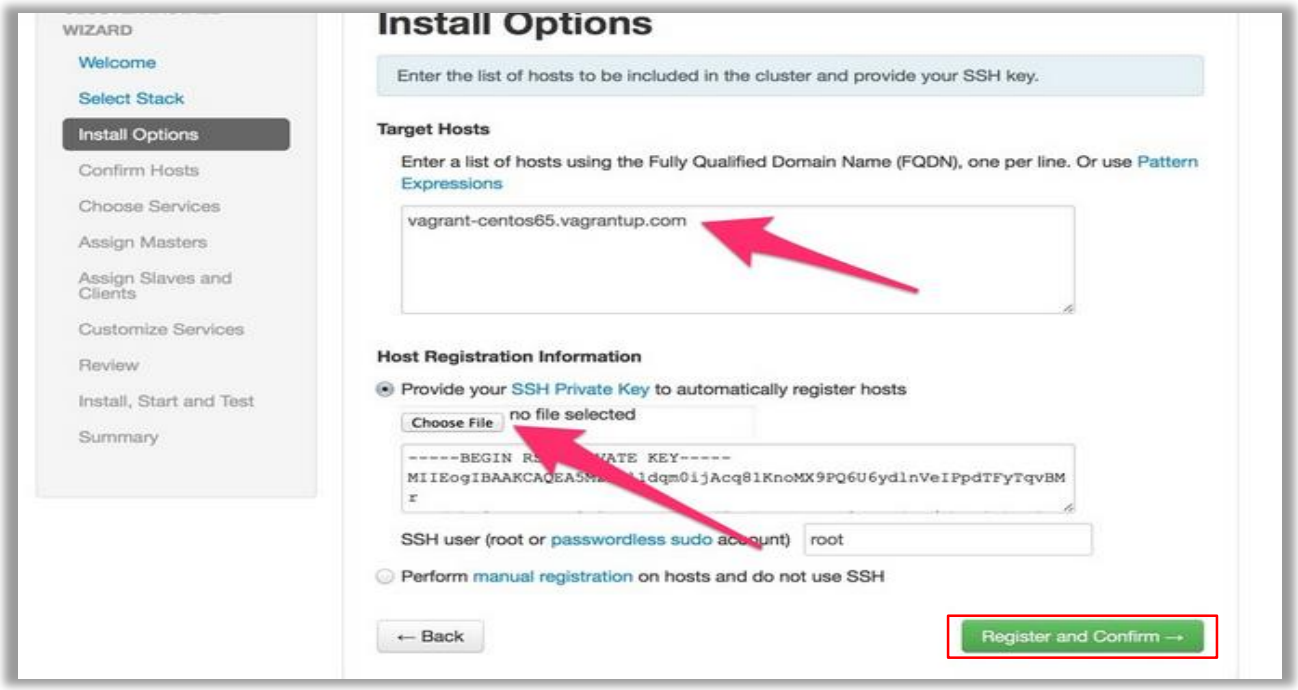


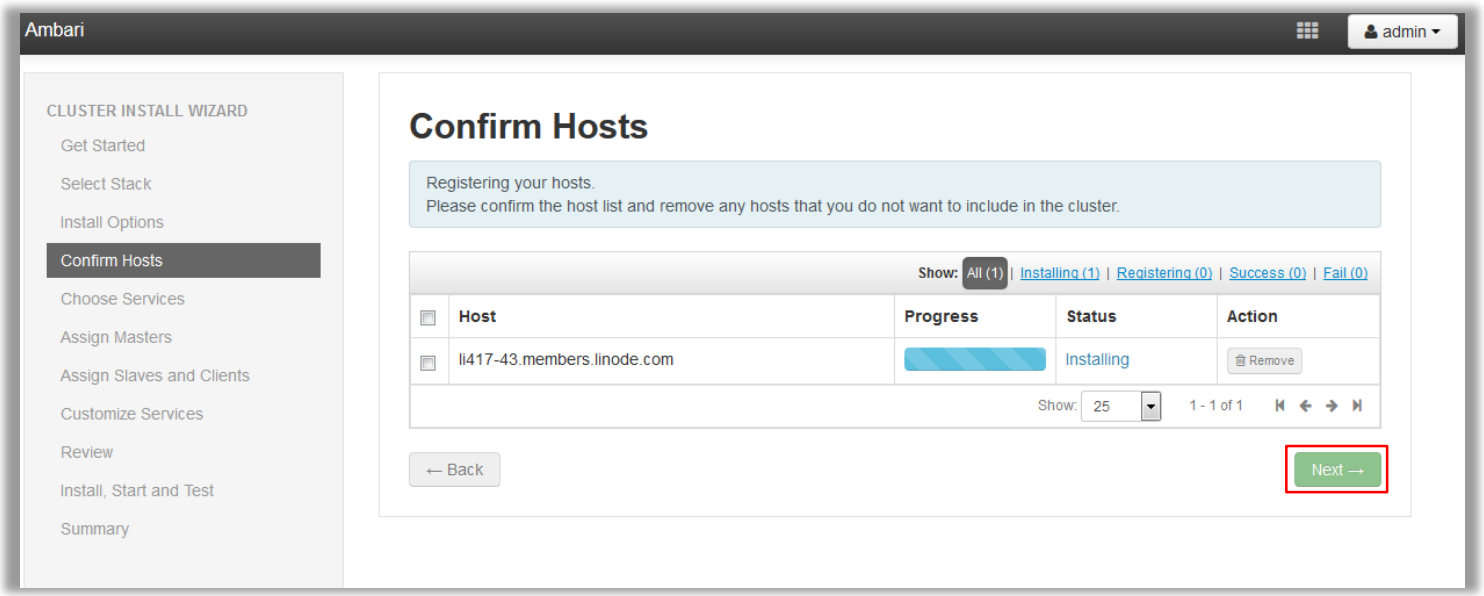


Advance Option: It is advance option where you can give the local (offline) repository where you have already downloaded the packages / rpms for installation

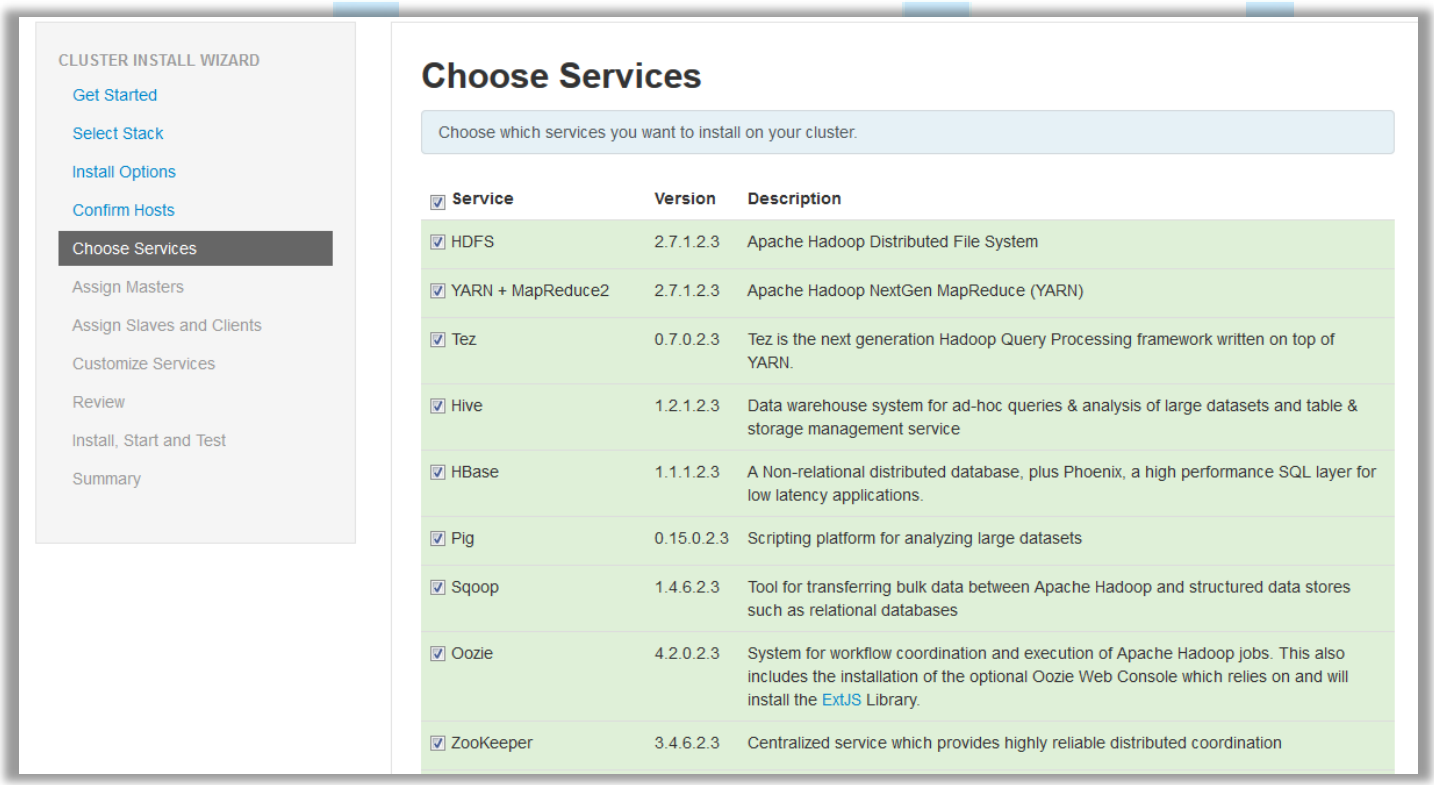
Once you click on it you can see the options for different operation systems as well. It will automatically choose the operating system and download the repository accordingly

Step 5: Provide the hostname and private to login into hosts

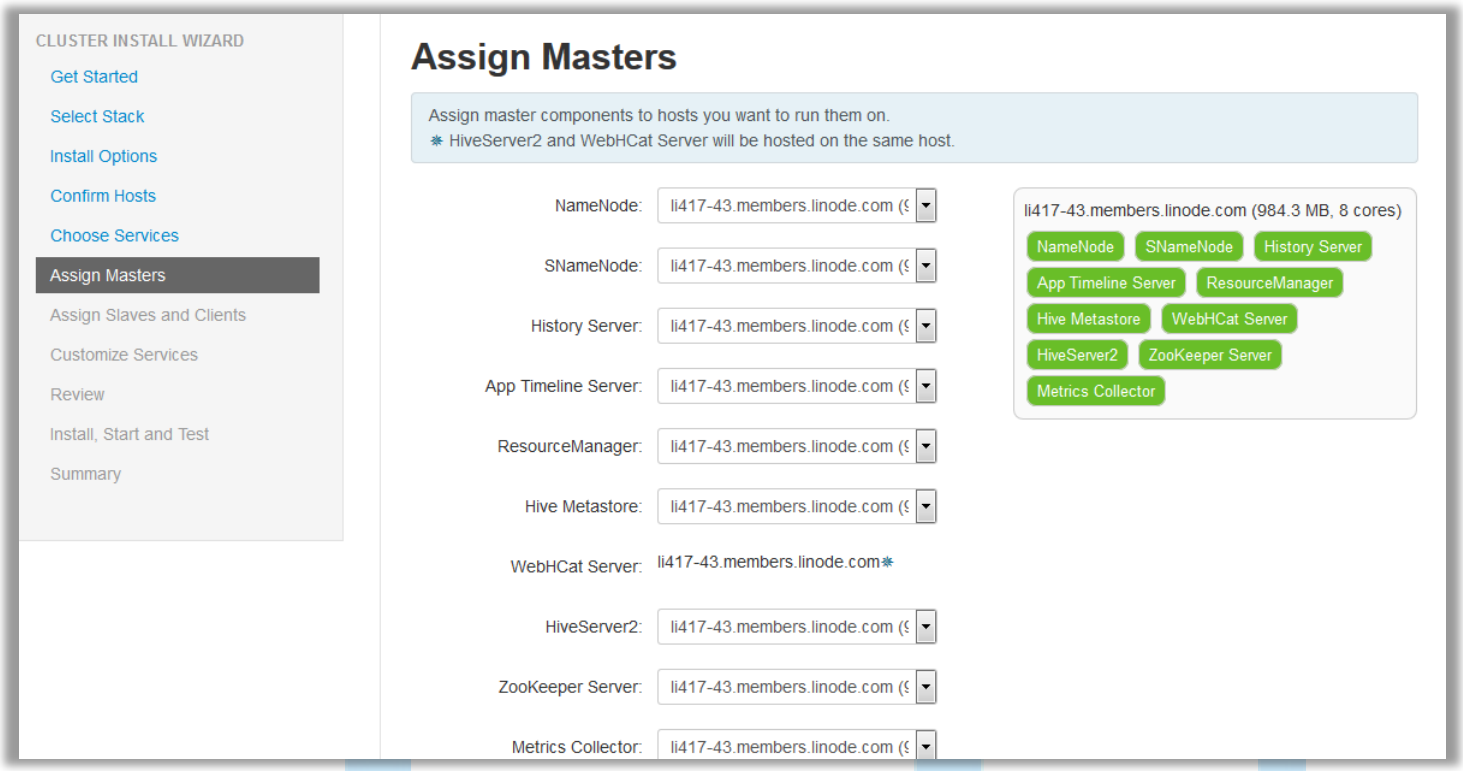




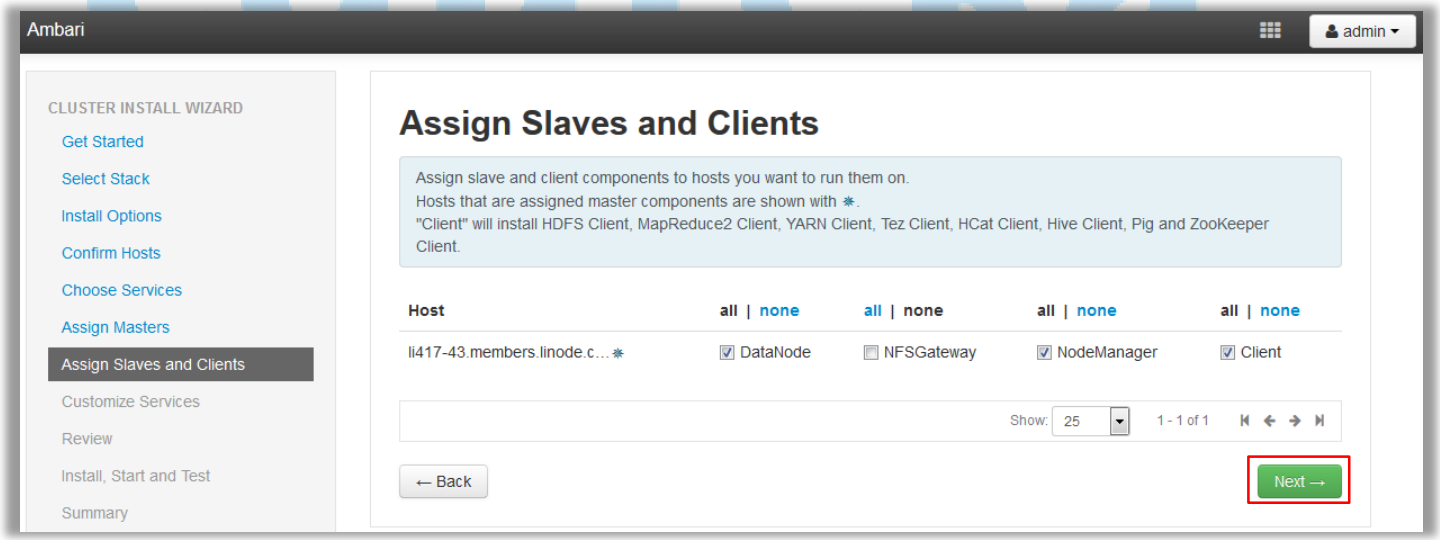
Step 7: Once everything went fine and it get register successfully you will see the below screen to install services



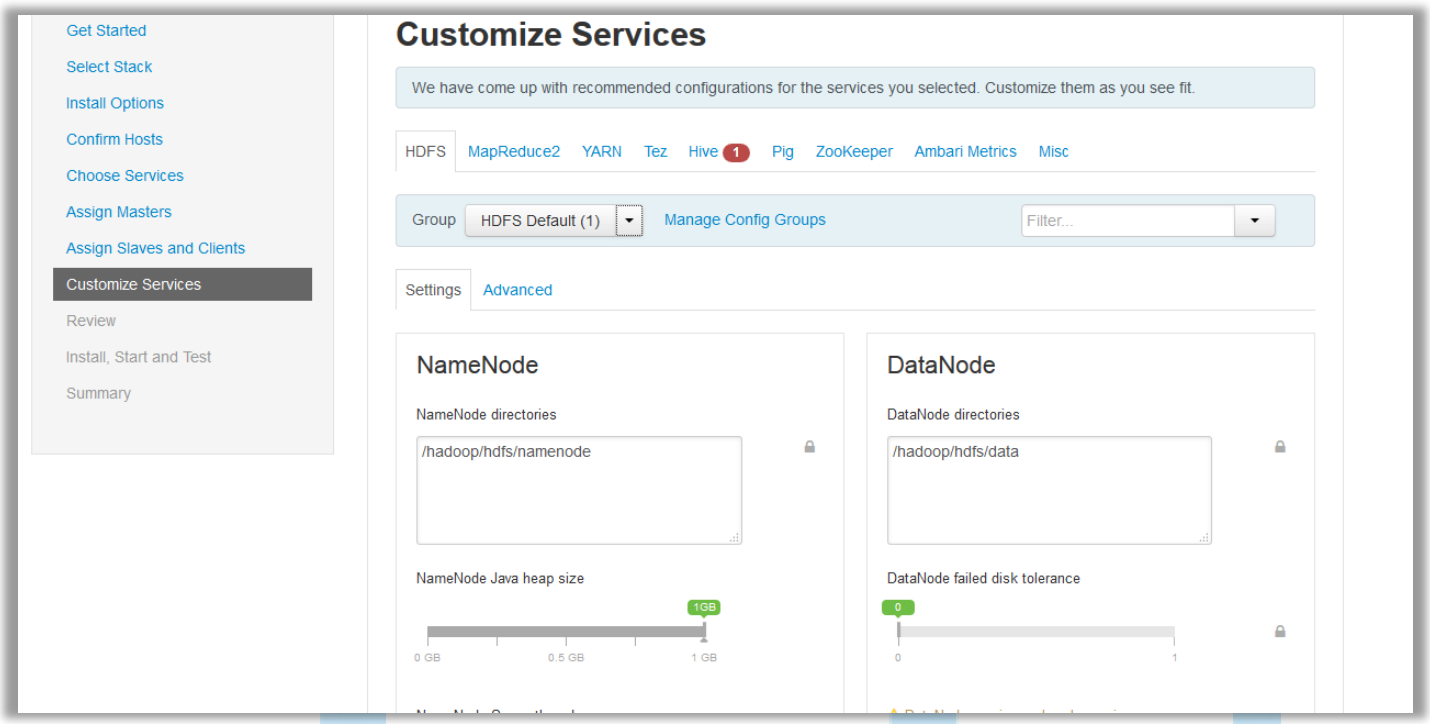
Step 8: After selecting your choice of service you can go next and see the below screen



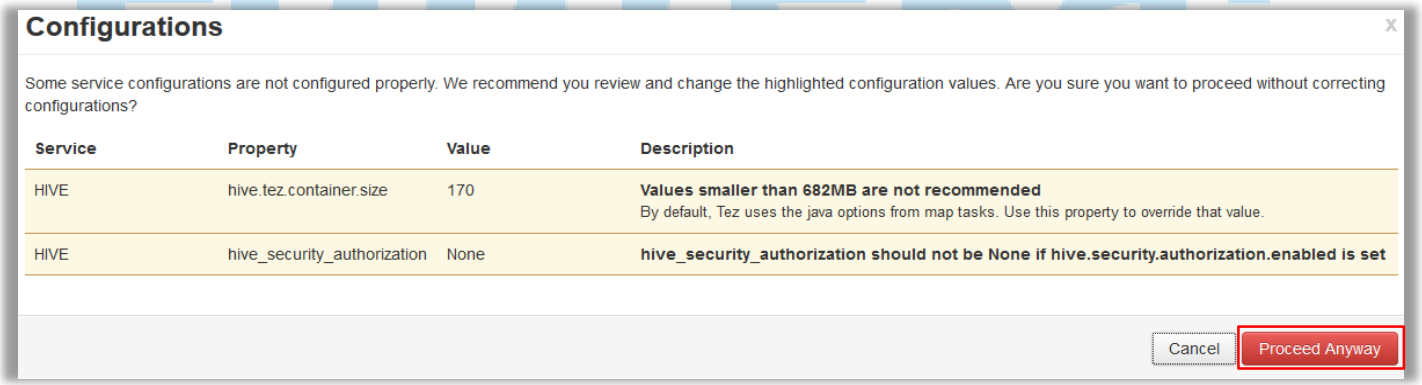
Step 9: Now you need to assign the client on client nodes



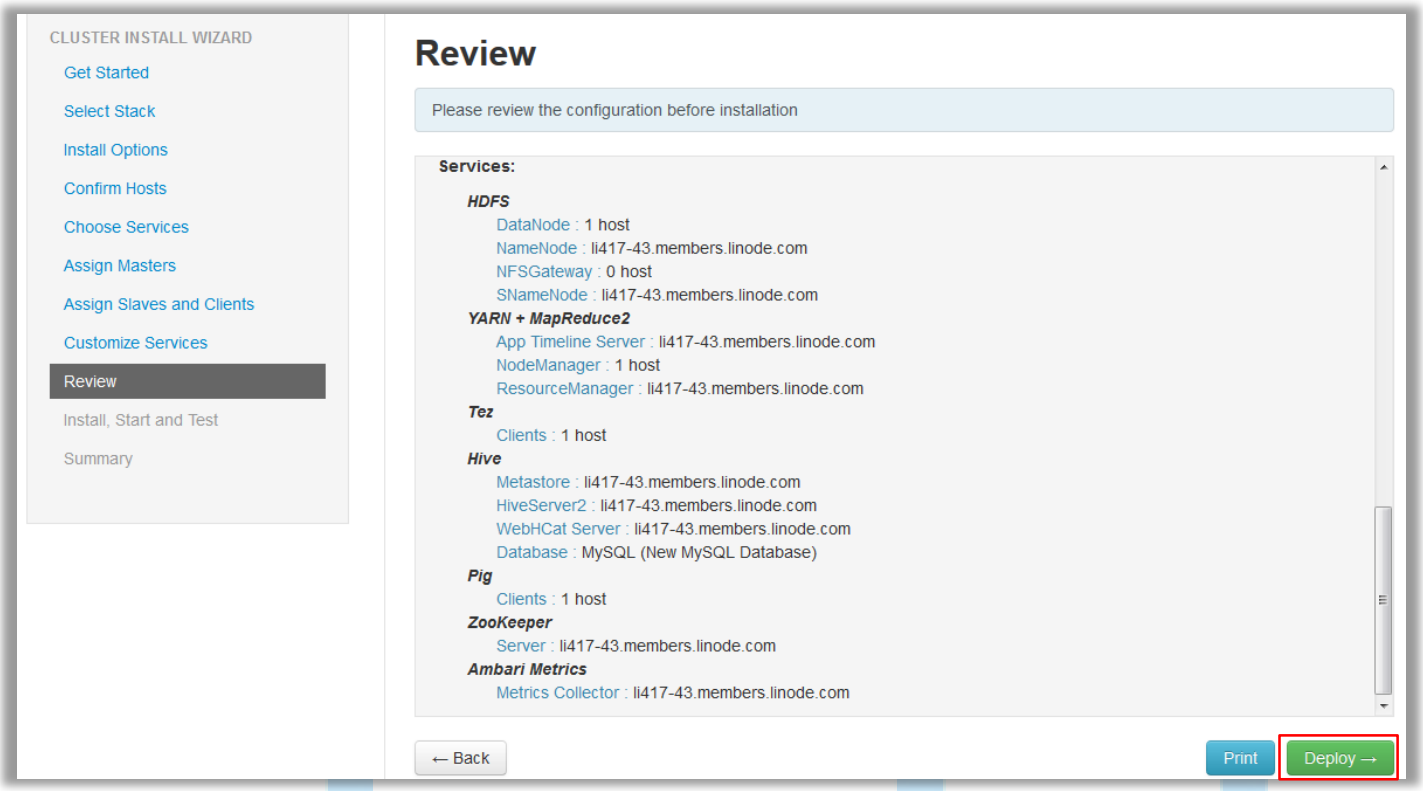
Step 10: Now you can customize the directory/memory for the entire component you have installed



Step 11: If anything goes wrong or not properly set it will show you this screen



Step12: Final Review of your work



Step 13: Now it will be start installing