On Hadoop CLI installation

On-Hadoop-CLI installation is for demo use, or for those who want to host their own web site to provide Kylin service. The scenario is depicted at https://github.com/KylinOLAP/Kylin#on-hadoop-cli-installation.

Except for some prerequisite software installations, the core of Kylin installation is accomplished by running a single script. After running the script, you will be able to build sample cube and query the tables behind the cubes via a unified web interface.

Environment

Running On-Hadoop-CLI installation requires you having access to a hadoop CLI, where you have full permissions to hdfs, hive, hbase and map-reduce. To make things easier we strongly recommend you starting with running Kylin on a hadoop sandbox, like http://hortonworks.com/products/hortonworks-sandbox/. In the following tutorial we'll go with Hortonworks Sandbox 2.1 and Cloudera QuickStart VM 5.1.

To avoid permission issue, we suggest you using root account. The password for **Hortonworks Sandbox 2.1** is hadoop, for **Cloudera QuickStart VM 5.1** is cloudera.

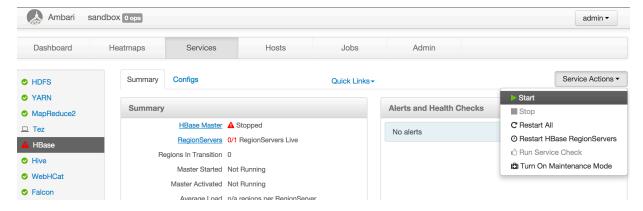
We also suggest you using bridged mode instead of NAT mode in your virtual box settings. Bridged mode will assign your sandbox an independent IP so that you can avoid issues like https://github.com/KylinOLAP/Kylin/issues/12

Start Hadoop

For Hortonworks, ambari helps to launch hadoop:

ambari-agent start ambari-server start

With both command successfully run you can go to ambari homepage at http://your_sandbox_ip:8080 (user:admin,password:admin) to check everything's status. By default hortonworks ambari disables Hbase, you'll need manually start the https://example.com/hbase service at ambari homepage.



For Cloudera, you can skip this step since they're by default activated.

Install tomcat

The latest tomcat can be found at http://tomcat.apache.org/download-70.cg, we need the variable CATALINA_HOME exported.

```
cd ~
wget http://apache.cs.uu.nl/dist/tomcat/tomcat-7/v7.0.57/bin/apache-tomcat-7.0.57.tar.gz
tar -xzvf apache-tomcat-7.0.57.tar.gz
export CATALINA_HOME=~/apache-tomcat-7.0.57
```

Install maven:

For Cloudera, you can skip this step since maven is by default installed.

The latest maven can be found at http://maven.apache.org/download.cgi, we create a symbolic so that mvn can be run anywhere.

```
cd ~
wget http://apache.proserve.nl/maven/maven-3/3.2.3/binaries/apache-maven-3.2.3-bin.tar.gz
tar -xzvf apache-maven-3.2.3-bin.tar.gz
ln -s ~/apache-maven-3.2.3/bin/mvn /usr/bin/mvn
```

Install npm

Npm comes with latest versions of nodejs, just donwload nodejs from http://nodejs.org/download/, npm is located at the /bin folder of nodejs, we append the folder to PATH so that npm can be run anywhere.

```
cd ~
wget http://nodejs.org/dist/v0.10.32/node-v0.10.32-linux-x64.tar.gz
tar -xzvf node-v0.10.32-linux-x64.tar.gz
export PATH=~/node-v0.10.32-linux-x64/bin:$PATH
```

Build cubes & Query tables

First clone the Kylin project to your local:

```
git clone https://github.com/KylinOLAP/Kylin.git
```

Go into the folder and run deploy script:

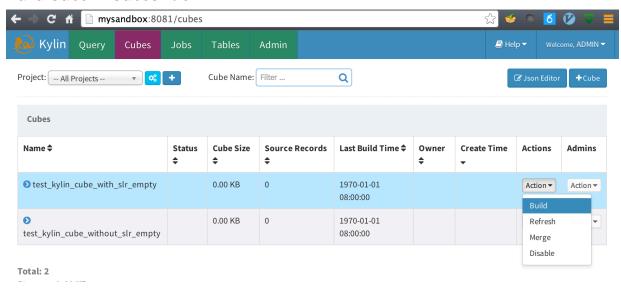
```
cd Kylin/
./deploy.sh
```

If you meet any problems, please check FAQ first. This script will help to:

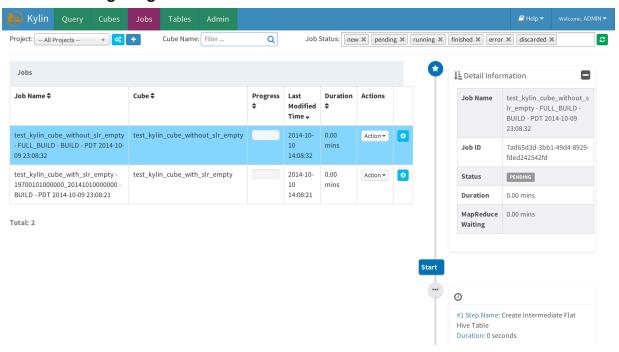
- 1. Check your environment
- 2. Build Kylin artifacts with Maven
- 3. Generate some sample tables
- 4. Create empty cubes for these tables
- 5. Lauch a one-stop website to build cubes & query tables

After successfully running the script, please navigate to http://your_sandbox_ip:7070 to build your cube and query it. The username/password is ADMIN/KYLIN

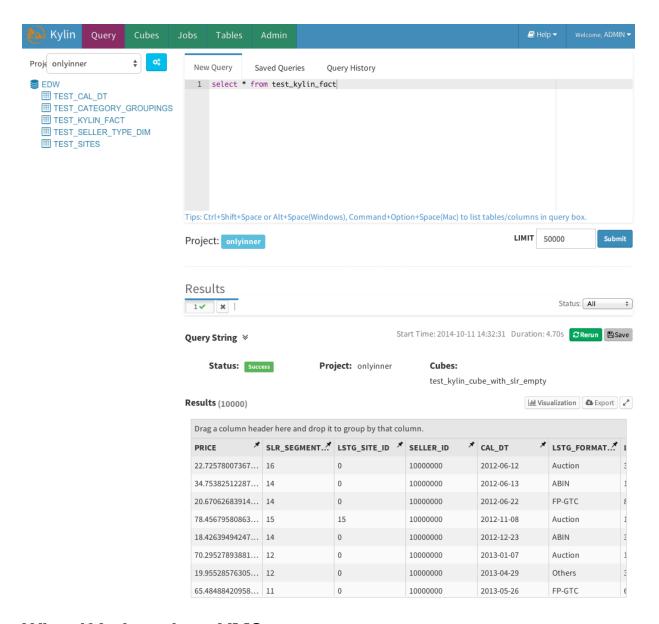
Build Cube in Cubes Tab



Check Building Progress in Job Tab



Query Tables in Query Tab



What if I closed my VM?

If you shut down the VM and restarted it, Kylin will not automatically start. Depending on whether you succeed in running the deploy.sh, you should:

If running deploy.sh failed last time

- 1. Kill it if any tomcat instance exist
- 2. Start over again

If running deploy.sh succeeded last time

1. Kill it if any tomcat instance exist

- 2. Make sure Hbase is running
- 3. run export CATALINA_HOME=~/apache-tomcat-7.0.56
- 4. run sudo -i "\${CATALINA_HOME}/bin/startup.sh"