Install Cassandra and Run as single-node cluster in Fedora

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Apache Cassandra is a NoSQL database intended for storing large amounts of data in a decentralized, highly available cluster. Cassandra database is the right choice when you need scalability and high availability without compromising performance.

Pre-Install Check

- These instructions are intended for installing Cassandra 3 on a Fedora node (versioned 22+).
- You may skip to step #2 if you already have a stable version of Java 8. Check to see if your server already has Java installed by running the following command: java -version

Step 1: Install Java

First, you'll follow a simple best practice: ensuring the list of available packages is up to date before installing anything new.

```
# dnf -y update
```

At this point, installing java is as simple as running just one command:

```
dnf -y install java
```

Step #2: Add the DataStax Community Repository

To add a repository, we need to setup a config file used by Fedora to retrieve the precompiled package for Cassandra.

```
vim /etc/yum.repos.d/datastax.repo
```

Add the following information to the file you've created, using i to insert:

```
[datastax]
name = DataStax Repo for Apache Cassandra
baseurl = http://rpm.datastax.com/community
```

```
enabled = 1
gpgcheck = 0
```

Then exit and save the file with the command :wq.

Step #3: Install Apache Cassandra 3
At this point, installing Cassandra is as simple as running just one command:

```
# dnf install cassandra30.noarch cassandra30-tools.noarch python3-
```

Step #4: Get Cassandra Running
Start-Up Cassandra

```
systemctl start cassandra
```

Check Cassandra Service Status

```
systemctl status cassandra
```

Enable Cassandra to Start at Boot

```
systemctl enable cassandra
```

Enter the Cassandra Command Line

```
cqlsh
```

The cqlsh interface should look similar to:
Connected to Test Cluster at localhost:9160.[cqlsh 4.1.1 | Cassandra 2.0.10 | CQL spec 3.1.1 | Thrift protocol 19.39.0]Use HELP for help.cqlsh>

Check Cassandra Node Status

```
nodetool status
```

If you get an error such as: ‘Failed to connect to ’127.0.0.1:7199′: Connection refused’, you may need to update one default setting for Cassandra, Open the file /etc/cassandra/default.conf/cassandra-env.sh, and find thess lines,

```
# add this if you’re having trouble connecting:
# JVM_OPTS=”$JVM_OPTS -Djava.rmi.server.hostname=<public name>”
```

Uncomment the second line, and add the hostname of your server, or the IP address which you’re connecting to/from. In this case, replacing with 127.0.0.1 resolved the issue.

Restart Cassandra

```
systemctl restart cassandra
```

Shutdown Cassandra

```
service cassandra stop
```