**Prerequisites for Kairos:**

Java 1.6 or later

Datastore base: We are using Cassandra as datastore

**Installing Cassandra**

Step 1: Install the Oracle Java Virtual Machine

Cassandra requires that the Oracle Java SE Runtime Environment (JRE) be installed. This step, we install and verify that it's the default JRE.

Verify if Oracle JVM is the default JRE:

java –version

You should see output similar to the following:

Output

*java version "1.8.0\_60"*

*Java(TM) SE Runtime Environment (build 1.8.0\_60-b27)*

*Java HotSpot(TM) 64-Bit Server VM (build 25.60-b23, mixed mode)*

If not, proceed with installation:

To make the Oracle JRE package available, add a Personal Package Archives (PPA) using this command:

sudo add-apt-repository ppa:webupd8team/java

Update the package database:

sudo apt-get update

Install the Oracle JRE. Installing this particular package not only installs it but also makes it the default JRE. When prompted, accept the license agreement:

sudo apt-get install oracle-java8-set-default

After installing it, verify that it's now the default JRE:

java -version

You should see output similar to the following:

Output

*java version "1.8.0\_60"*

*Java(TM) SE Runtime Environment (build 1.8.0\_60-b27)*

*Java HotSpot(TM) 64-Bit Server VM (build 25.60-b23, mixed mode)*

Set JAVA\_HOME in /etc/environment (something like as shown below)

JAVA\_HOME="/usr/lib/jvm/java-8-openjdk-amd64/bin/java"

Step 2: Install Cassandra

Append repo so packages are available to the server:

cd /etc/apt

nano source list

Now add these two lines in this file:

deb http://www.apache.org/dist/cassandra/debian 22x main

deb-src http://www.apache.org/dist/cassandra/debian 22x main

\*Note: 23x if version 2.3

To avoid package signature warnings during package updates, we need to add three public keys from the Apache Software Foundation associated with the package repositories.

Add the first one using this pair of commands, which must be run one after the other:

gpg --keyserver pgp.mit.edu --recv-keys F758CE318D77295D

gpg --export --armor F758CE318D77295D | sudo apt-key add –

Second Key

gpg --keyserver pgp.mit.edu --recv-keys 2B5C1B00

gpg --export --armor 2B5C1B00 | sudo apt-key add –

Third Key

gpg --keyserver pgp.mit.edu --recv-keys 0353B12C

gpg --export --armor 0353B12C | sudo apt-key add –

Now update apt-get

apt-get update

Install Cassandra

apt-get install Cassandra

cd /etc/Cassandra

Configure

Configuration can be viewed/modified in: /etc/Cassandra/cassandra.yaml

nano cassandra.yaml

Check options for Cassandra services

service Cassandra

To start Cassandra

service Cassandra start

To check status if Cassandra is running:

service Cassandra status

**Installing KairosDB**

Step 1: Download KairosDB

Get url from the KairosDB site: https://github.com/kairosdb/kairosdb/releases/

wget https://github.com/kairosdb/kairosdb/releases/download/v1.1.1/kairosdb-1.1.1-1.tar.gz

tar –xzf kairosdb-1.1.1-1.tar.gz

Step 2: Configure settings

cd kairosdb/conf

Set datastore in configuration file:

nano kairosdb.properties

In the file comment the line where H2 is set as datastore and uncomment Cassandra module. So the file should look like this.

#kairosdb.service.datastore=org.kairosdb.datastore.h2.H2Module

kairosdb.service.datastore=org.kairosdb.datastore.cassandra.CassandraModule

\*Note: KairosDB runs on Port 8013. So if any other service is running on the port, configure service on a different port say 4244

Step 3: Run KairosDB

cd ../bin/

sudo ./kairosdb.sh run

ps ax | grep kairosdb