“INSTALLING VIRTUOSO”

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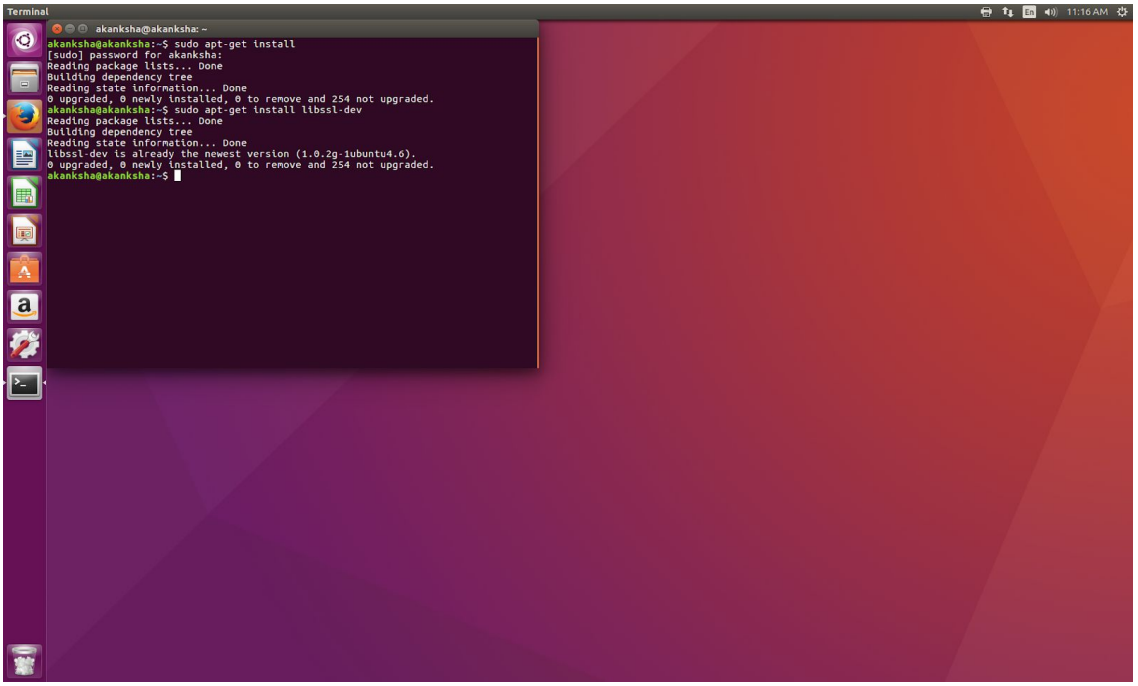
Following are the instructions to install Virtuoso-opensource-7.2.4.2 on a Linux Operating System(Ubuntu 16.04)

Open browse and search Virtuoso Open Source<?version>
Or
go to this link https://github.com/openlink/virtuoso-opensource/releases

Download the latest version of virtuoso (virtuoso-opensource-7.2.4.2.tar.gz/ virtuoso-opensource-<version>.tar.gz) and then **right click** and choose **Extract Here**

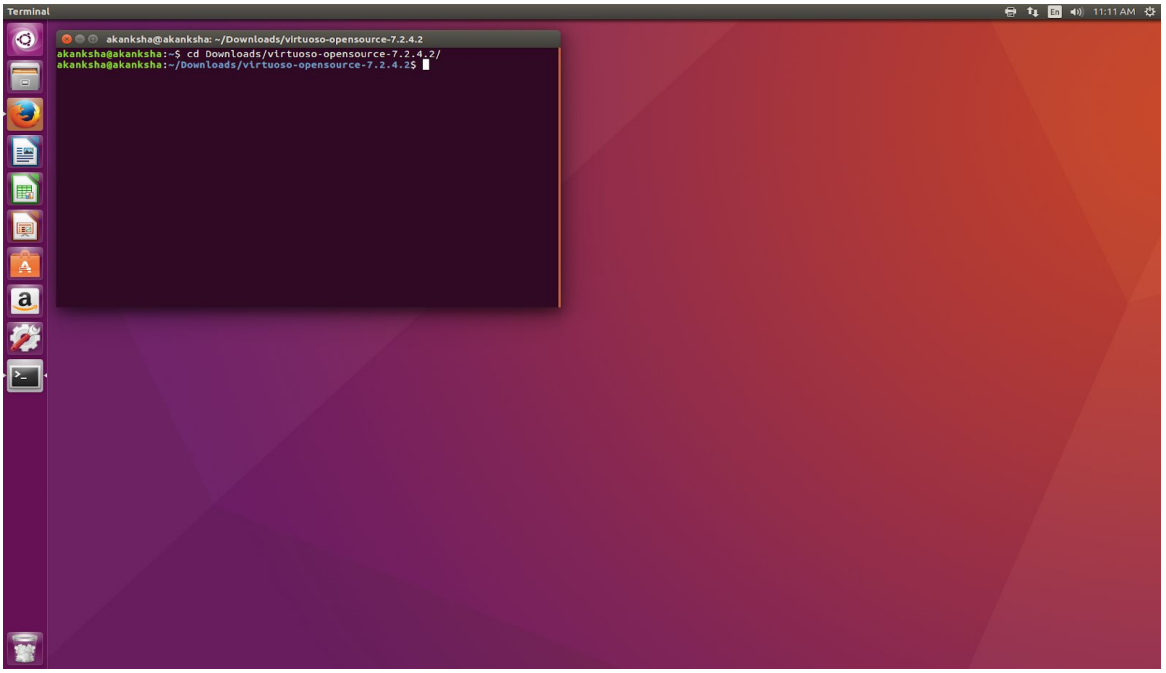
Now Open a terminal and type:

```
$       Sudo apt-get install
$       sudo apt-get install libssl-dev
```

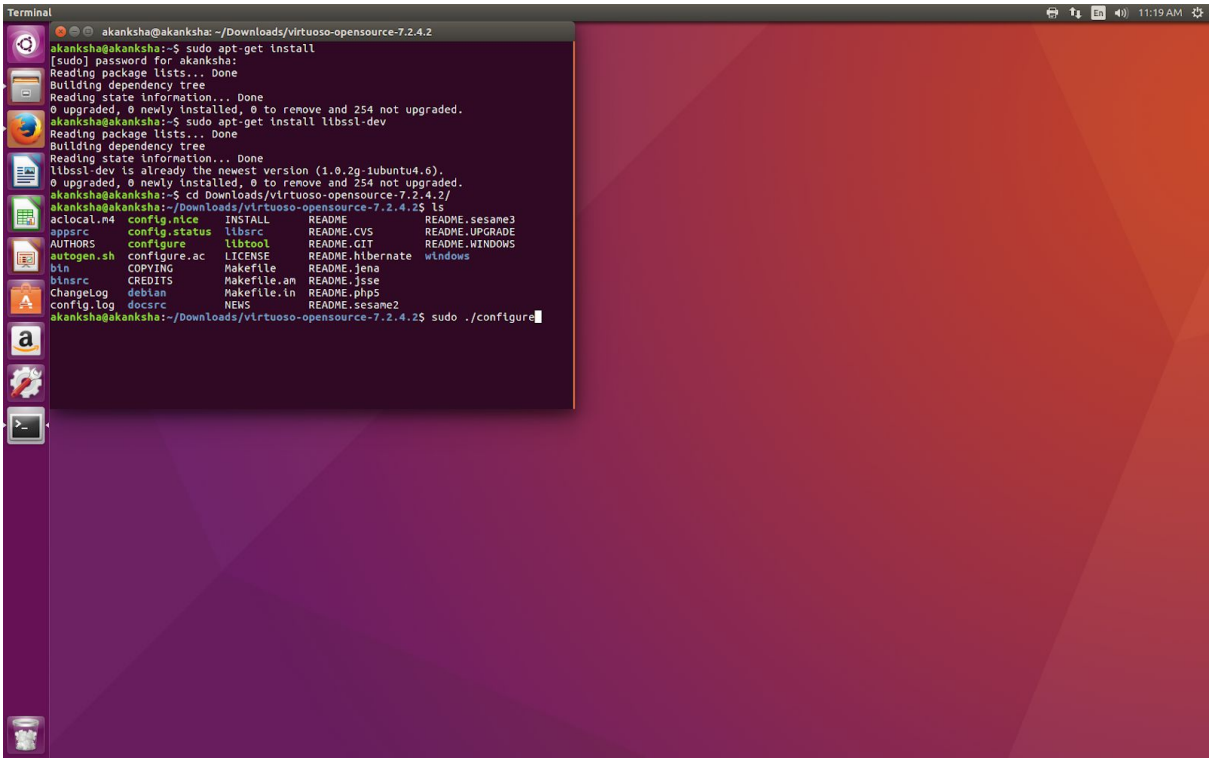


go to the extracted virtuoso folder since I extracted virtuoso in Download folder I will go to my location of virtuoso as cd Downloads/virtuoso-opensource-7.2.4.2/

```
$  cd <Download_folder>/virtuoso-opensource-7.2.4.2/
```



Continue typing virtuoso commands:



Execute all commands as a root user:

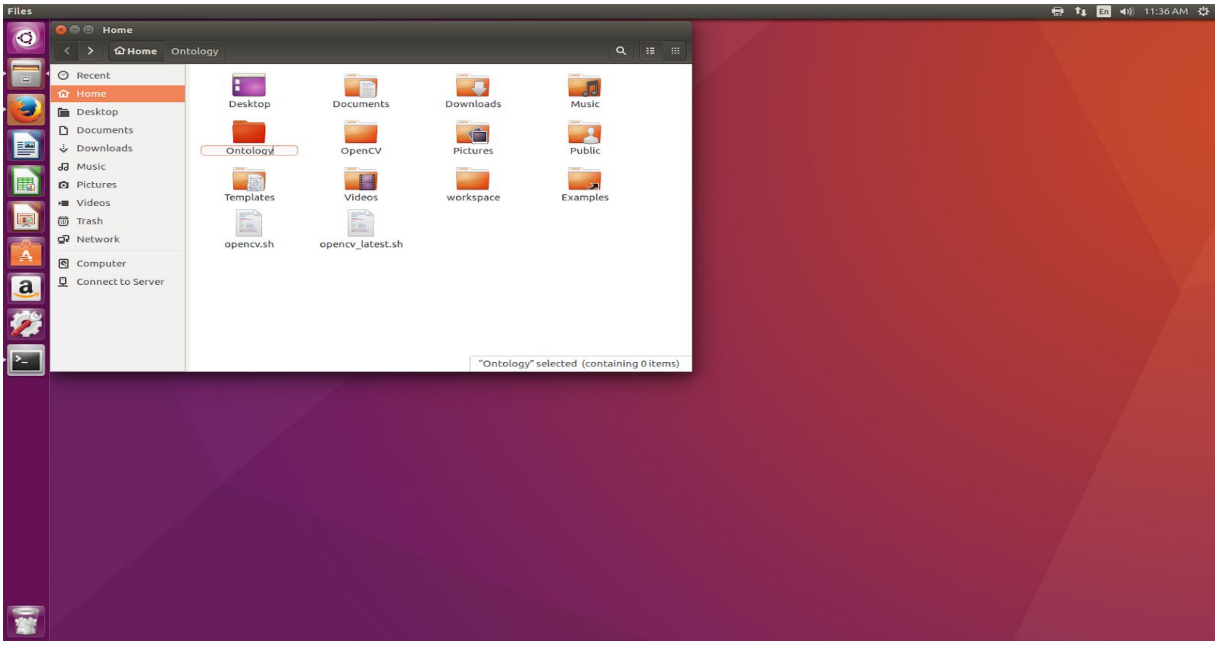
$ sudo ./configure

If it is successful you will see a brief Virtuoso Open Source Edition (Column Store) 7.2.4.2 configuration summary

$ sudo make

$ sudo make install

Now go to your **home** and create a **new folder** name it say Ontology this is where you will keep all your ontologies locally:



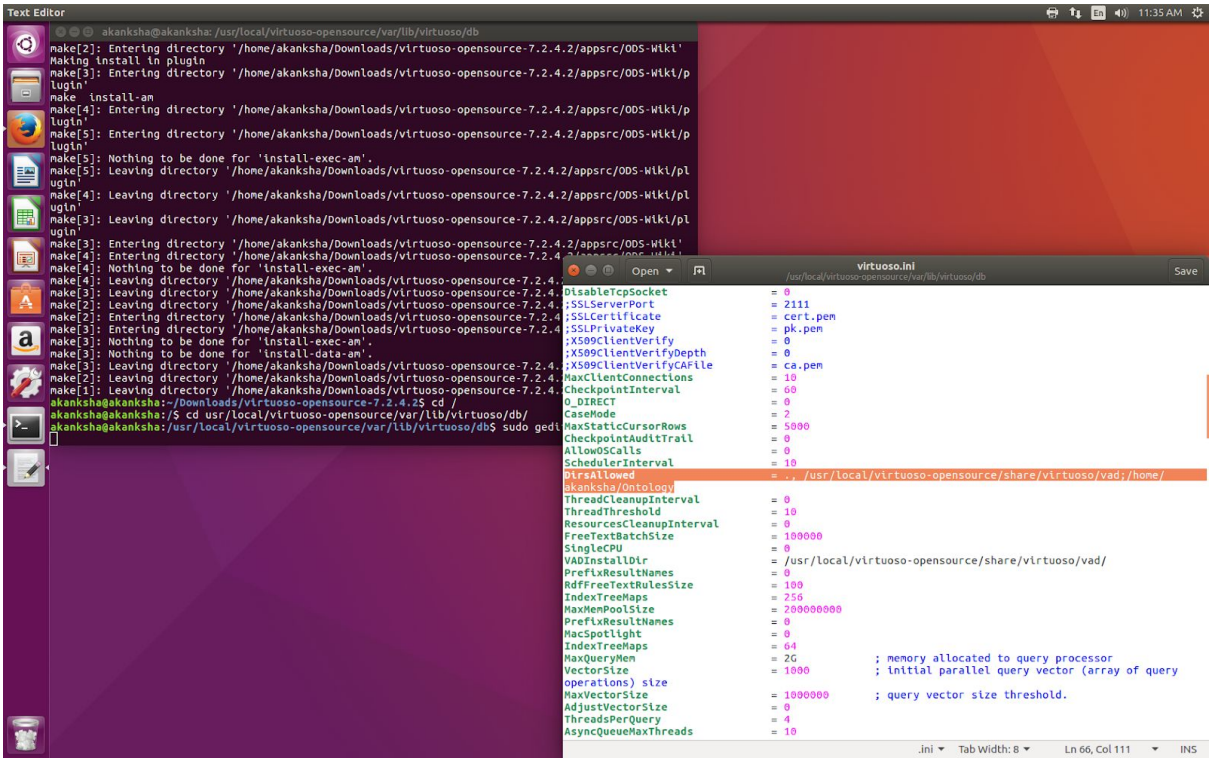
Now go to your root directory

$ cd /

Go and edit the virtuoso.ini file

$ cd /usr/local/virtuoso-opensource/var/lib/virtuoso/db/

$ sudo gedit virtuoso.ini



You can use any editors I feel editing in **gedit** is easier than **vi**

Go to the line **DirsAllowed** and add the **location** of your Ontology folder as

,/home/<usr>/<name_of_the_folder> //note: use , to separate directories

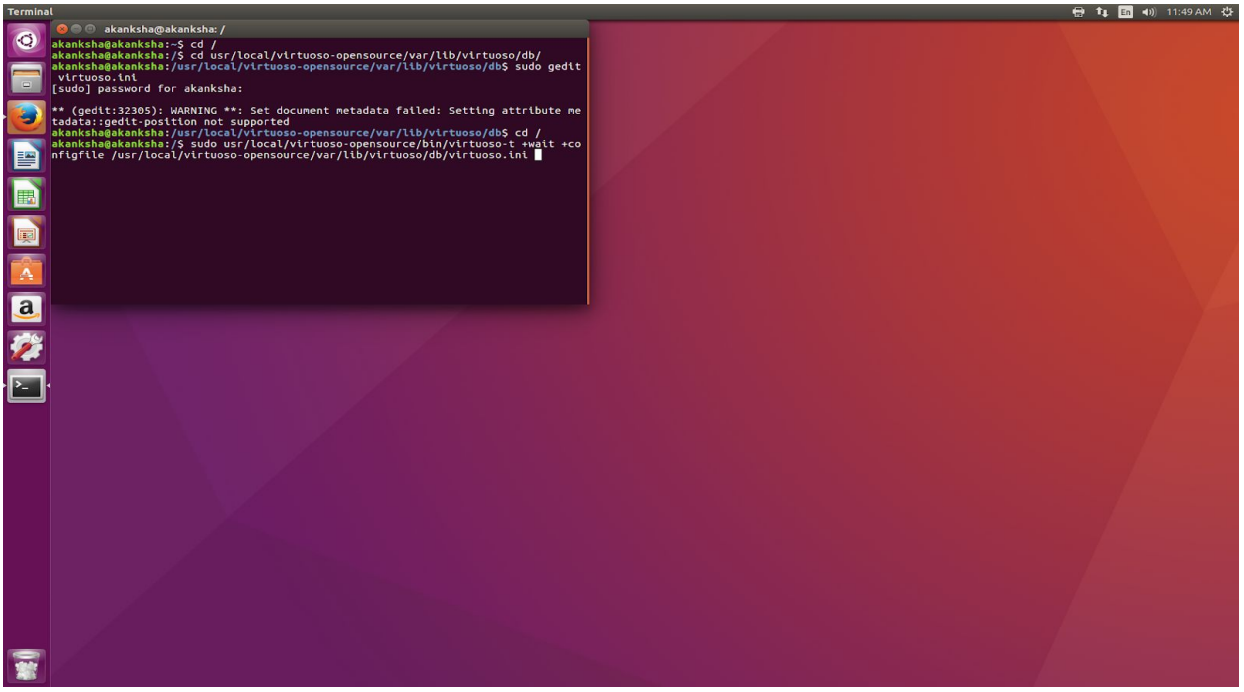
Save the changes and exit

Now again go to your root directory:

$ cd /

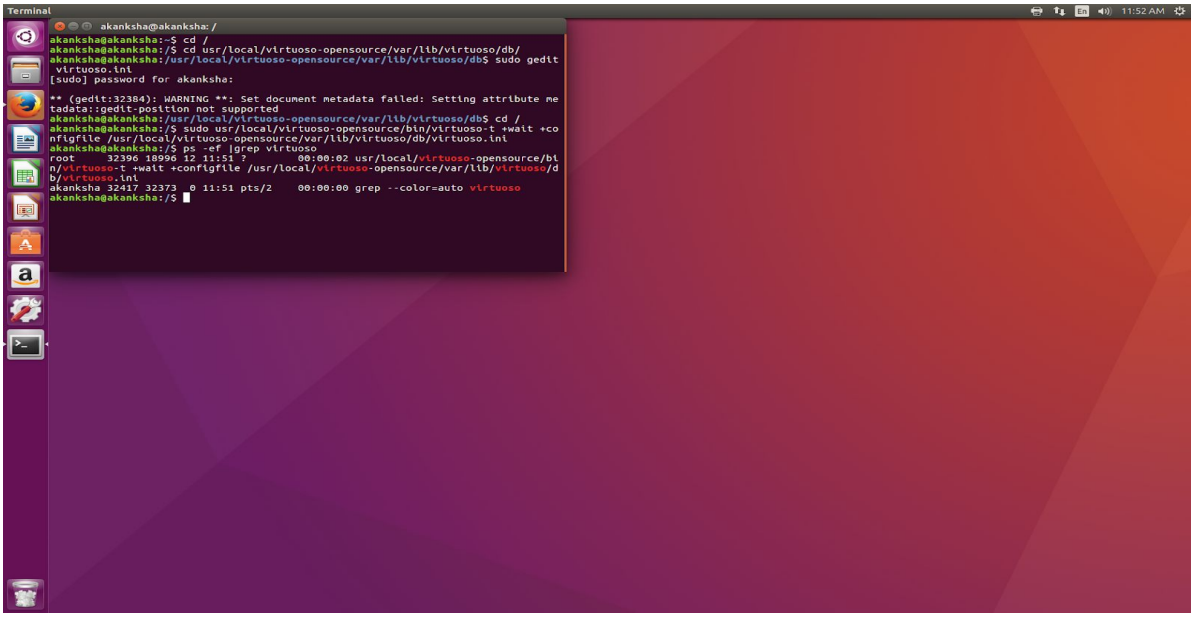
Now we will start virtuoso , always use this command to start virtuoso server:

$ sudo /usr/local/virtuoso-opensource/bin/virtuoso-t +wait +configfile /usr/local/virtuoso-opensource/var/lib/virtuoso/db/virtuoso.ini



This will initiate virtuoso to check if virtuoso is running in your system you can use command it will give you the process id as second string:

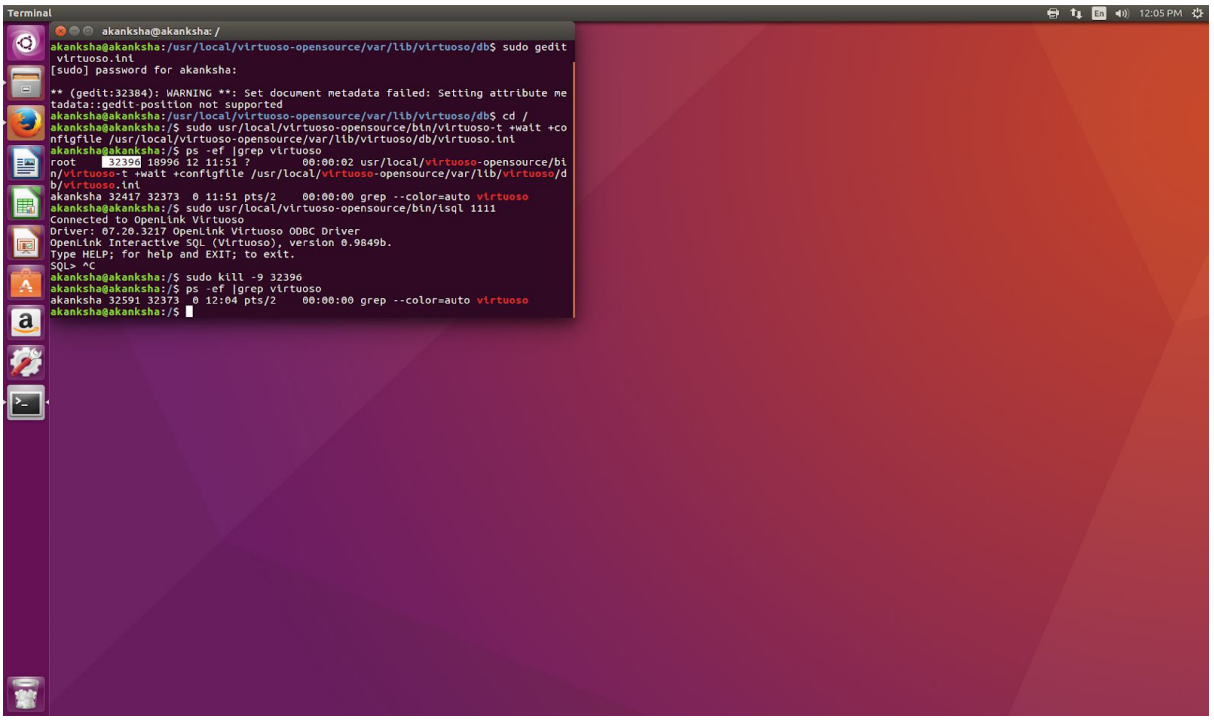
$ ps -ef |grep virtuoso



Now get a SQL prompt you type:

$ sudo /usr/local/virtuoso-opensource/bin/isql 1111

Do a cmd+C to get out of the SQL prompt.
And to terminate the virtuoso server type:
$ sudo kill -9 <process_ID>
You get the process id when you use the grep command to check virtuoso server state.



Check again to see if virtuoso is still active:
$ ps -ef |grep virtuoso

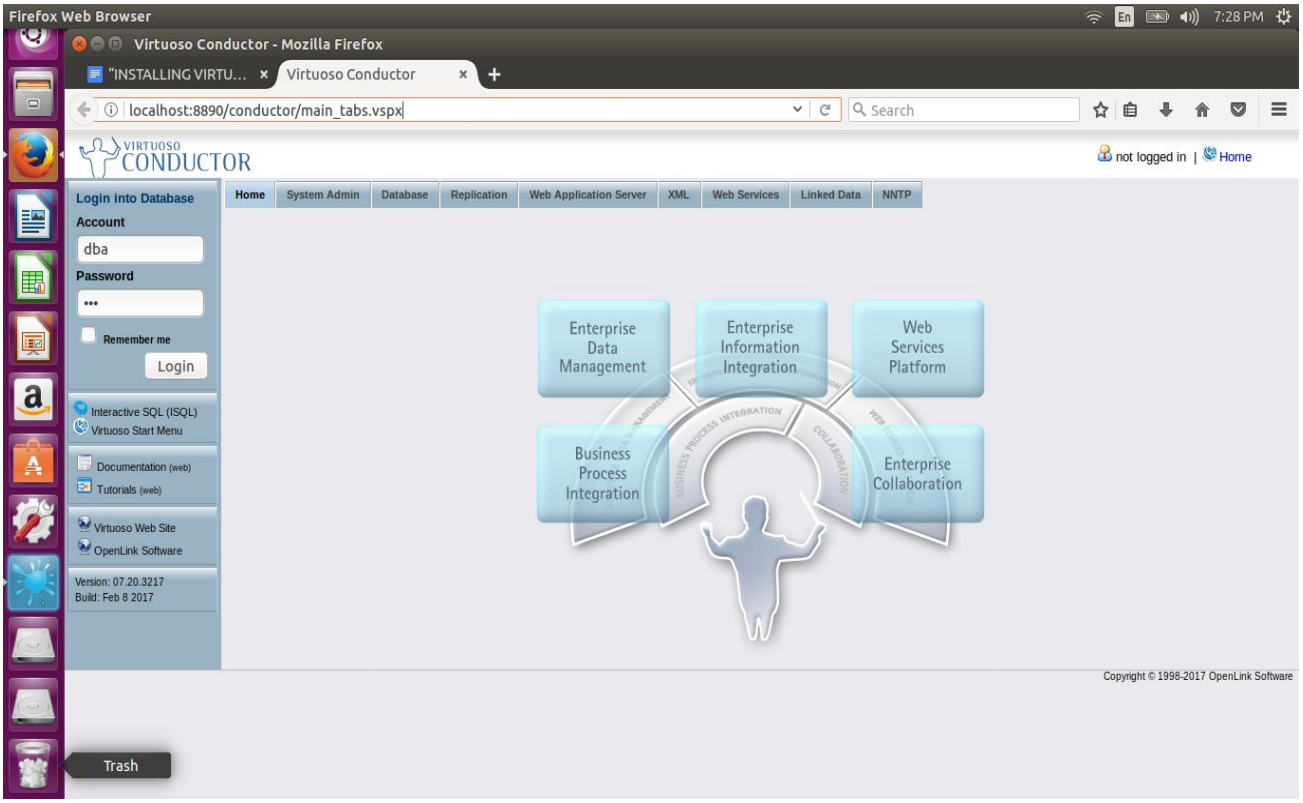
If you don't see an active virtuoso server you have terminated it safely.

Or to check if virtuoso is up and running simply go to your browser and type
$ http://localhost:8890/conductor/

Login using default login ID and Password

Login ID: dba

Password: dba



when you get sql prompt
load the rdf
<folder containing ontology in local system, type, uri of your ontology described in *.graph file>

sql>* ld_dir('**/home/username/ontologies**','.owl**','**http://myonto**');**

to see all the graphs in virtuoso

***sql>* select * from DB.DBA.load_list;**

to load the rdf into virtuoso

***sql>* rdf_loader_run();**

Note:
All commands following $ in blue are for command prompt.