[DB2] Install DB2 11.1 on Ubuntu 16.04

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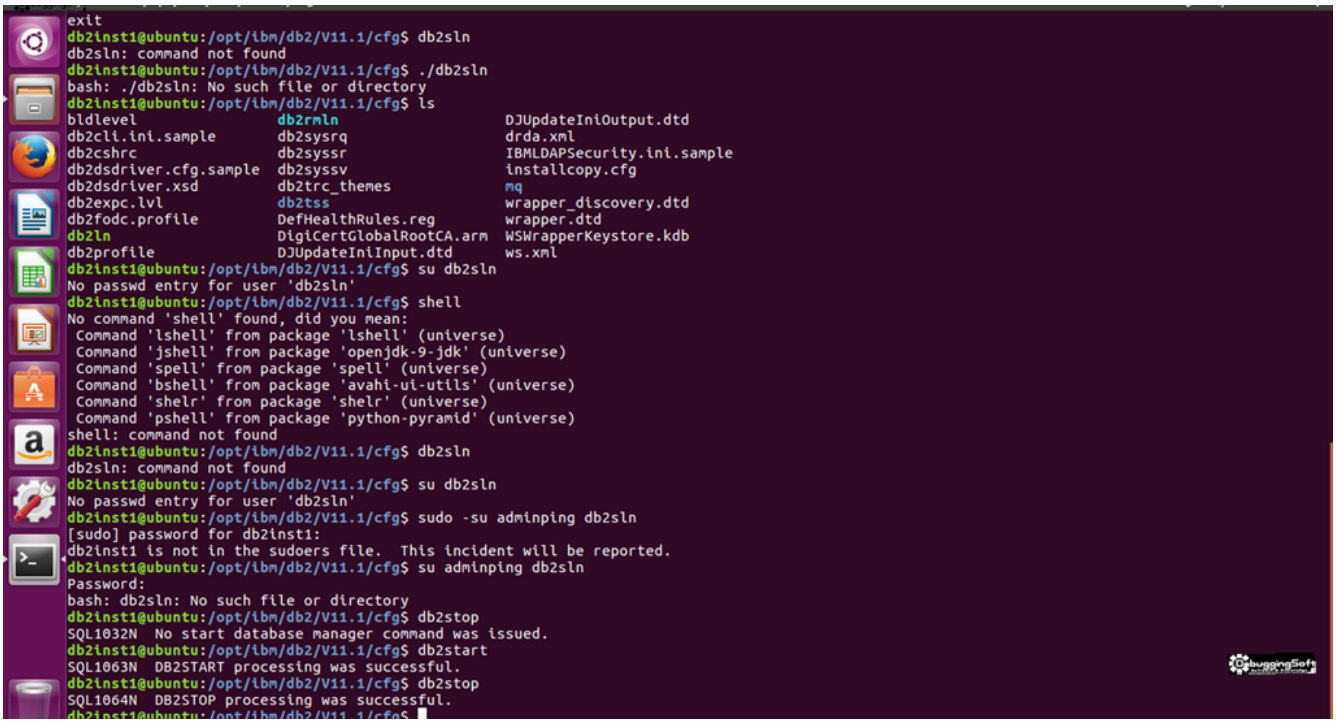


Cosas para preparar

El instalador de Linux DB2 se puede descargar desde aquí (probé la función Version Express C, suficiente para mí).

Aproximadamente 3.5 GB de espacio libre

Download the database
https://www.ibm.com/developerworks/downloads/im/db2express/

Ve a la Terminal para prepararte

`Vaya a la ruta donde está almacenado el programa de instalación de DB2 11.1.`

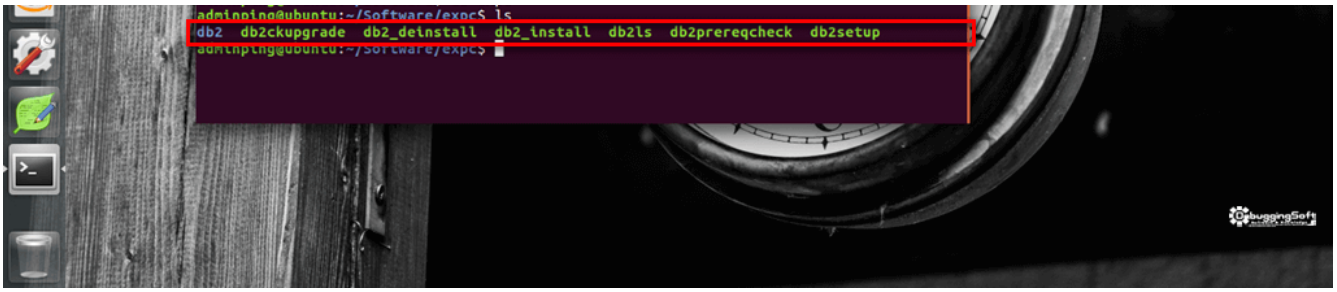
`Está comprimido en .tar.gz. Utilizamos el comando para extraer el instalador de la siguiente manera.`

tar xvzf v11.1_linuxx64_expc.tar.gz

You must run the installer from this folder or a folder near /home/ without spaces(e.g. how not do it /home/henry 1/).
cd /opt/ibm/db2expc_installer/server_dec

Cuando se extrae el archivo, obtenga la carpeta server_dec como en la imagen.

Miremos adentro con el comando ls. Busque los archivos importantes de la siguiente manera.

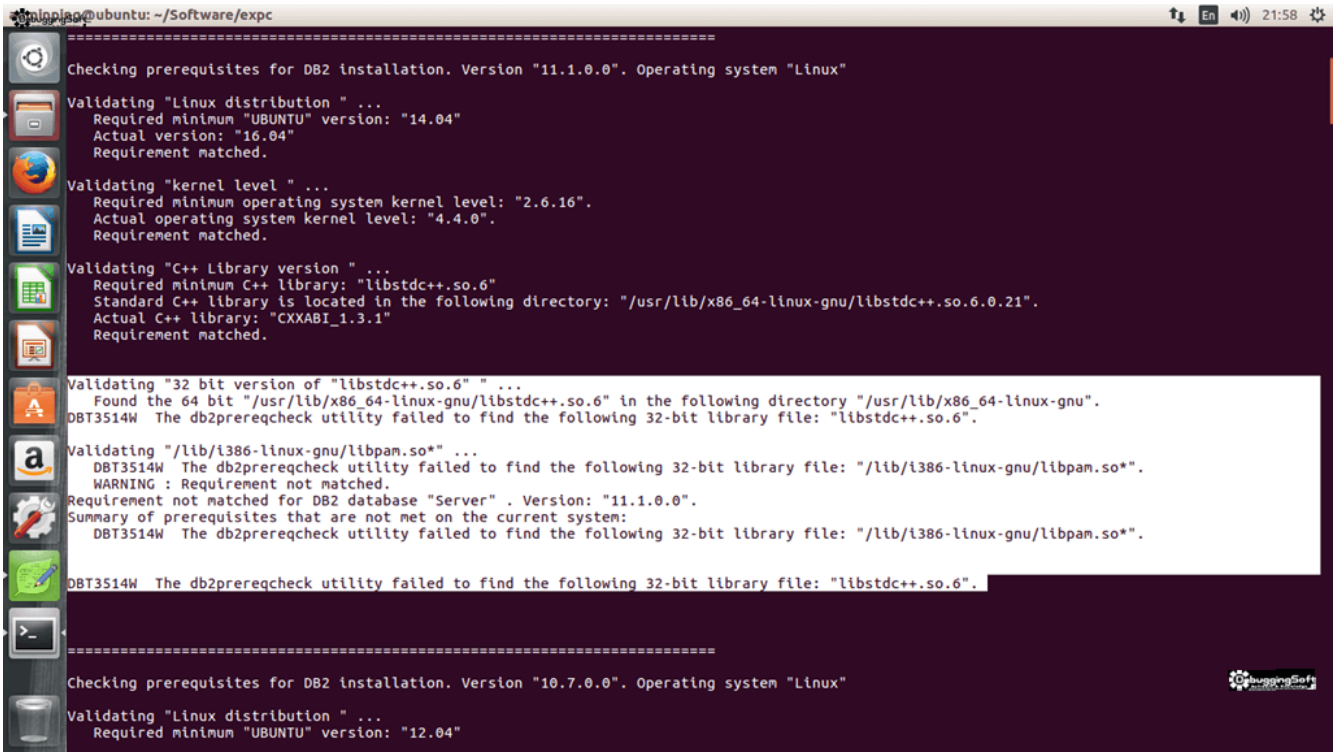


Polarized db2: almacena todo lo necesario para la instalación
- db2ckupgrade - cambiar versión
- db2_deinstall - eliminar
- db2_install - Instalación en línea de comando
- db2ls
- db2prereqcheck - verifique la disponibilidad de la máquina antes de la instalación
- db2setup: instalación de la GUI

Ejecutemos el bash db2prereqcheck. Primero en verificar la declaración

sudo ./db2prereqcheck

Hay muchas versiones. Interesado en 11.1 como en la imagen.



Veamos los fallos.

```
Validating "32 bit version of "libstdc++.so.6" " ...
Found the 64 bit "/usr/lib/x86_64-linux-gnu/libstdc++.so.6" in the following
directory "/usr/lib/x86_64-linux-gnu".
```

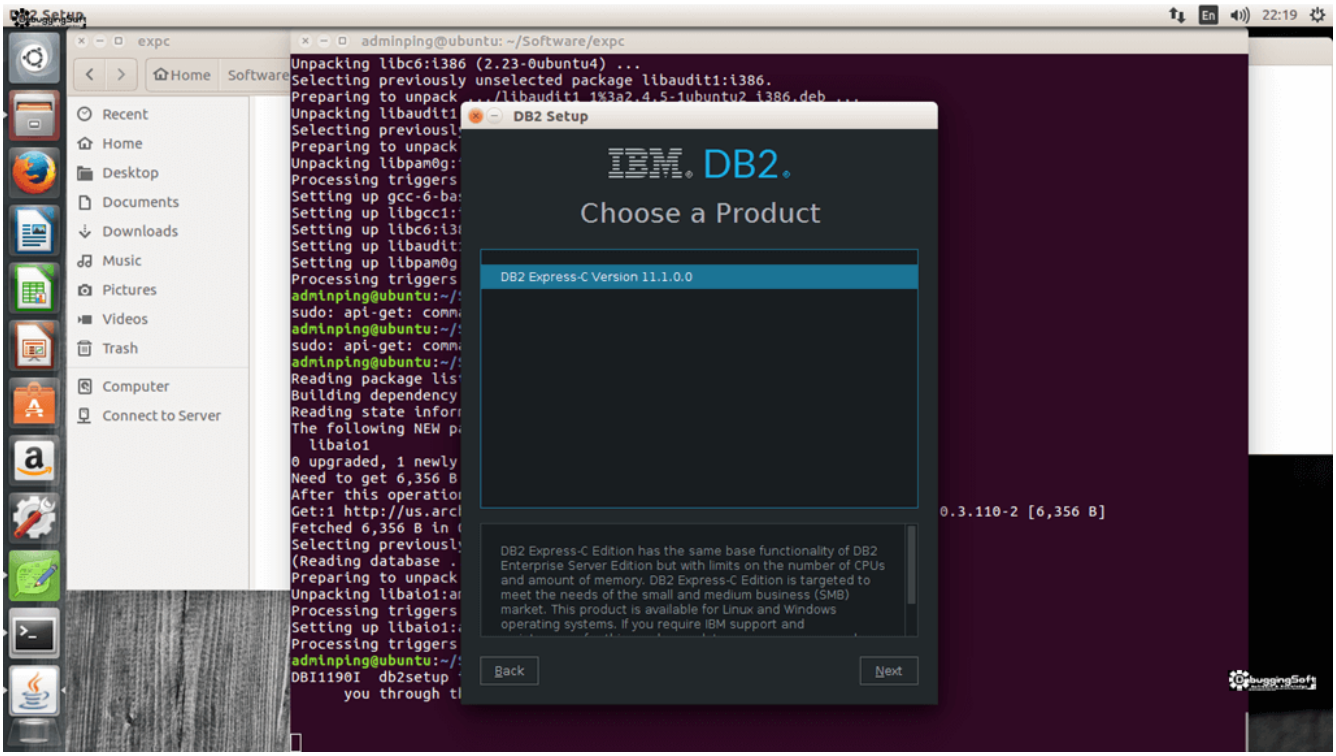
```
DBT3514W The db2prereqcheck utility failed to find the following 32-bit library
file: "libstdc++.so.6".

Validating "/lib/i386-linux-gnu/libpam.so*" ...
DBT3514W The db2prereqcheck utility failed to find the following 32-bit library
file: "/lib/i386-linux-gnu/libpam.so*".
WARNING : Requirement not matched.
Requirement not matched for DB2 database "Server" . Version: "11.1.0.0".
Summary of prerequisites that are not met on the current system:
DBT3514W The db2prereqcheck utility failed to find the following 32-bit library
file: "/lib/i386-linux-gnu/libpam.so*".

DBT3514W The db2prereqcheck utility failed to find the following 32-bit library
file: "libstdc++.so.6".
```

Agregar 3 programas para resolver el problema.

sudo apt-get install libx32stdc++6 libpam0g:i386 libaio1

https://www.ibm.com/support/knowledgecenter/SS4KMC_2.4.0/com.ibm.sco.doc_2.4/ts/ts_errors_of_32_bit_library_files.html

Run Bash db2setup



sudo ./db2setup

Post-Installation steps

Required steps:

In order to start using DB2 you need to logon using a valid user ID such as the DB2 instance owner's ID "db2inst1".

You can connect to the DB2 instance "db2inst1" using the port number "50000". Record it for future reference.

Optional steps:

To validate your installation files, instance, and database functionality, run the Validation Tool, /opt/ibm/db2/V11.5/bin/db2val. For more information, see "db2val" in the DB2 Information Center.

Open First Steps by running "db2fs" using a valid user ID such as the DB2 instance owner's ID. You will need to have DISPLAY set and a supported web browser in the path of this user ID.

You should ensure that you have the correct license entitlements for DB2 products and features installed on this machine. Each DB2 product or feature comes with a license certificate file (also referred to as a license key) that is distributed on an Activation CD, which also includes instructions for applying the license file. If you purchased a base DB2 product, as well as, separately priced features, you might need to install more than one license certificate.

The Activation CD for your product or feature can be downloaded from Passport Advantage if it is not part of the physical media pack you received from IBM. For more information about licensing, search the Information Center (http://publib.boulder.ibm.com/infocenter/db2luw/v10r5/index.jsp) using terms such as "license compliance", "licensing" or "db2licm".

To use your DB2 database product, you must have a valid license. For information about obtaining and applying DB2 license files, see http://pic.dhe.ibm.com/infocenter/db2luw/v10r5/topic/com.ibm.db2.luw.qb.server.doc/doc/c0061199.html.

Refer to "What's New" http://publib.boulder.ibm.com/infocenter/db2luw/v10r5/topic/com.ibm.db2.luw.wn.doc/doc/c0052035.html in the DB2 Information Center to learn about the new functions for DB2 11.5.0.0.

Verify that you have access to the DB2 Information Center based on the choices you made during this installation. If you performed a typical or a compact installation, verify that you can access the IBM Web site using the internet. If you performed a custom installation, verify that you can access the DB2 Information Center location specified during the installation.

Review the response file created at /root/db2server.rsp. Additional information about response file installation is available in the DB2 documentation under "Installing DB2 using a response file".

Note: You do not need to do any of the postinstallation steps

```
Now you can login with db2inst1:
su db2inst1

$DB2DIR es la ruta a la que está instalado DB2, ahora /opt/ibm/db2/V11.5
```

echo $DB2DIR

Verify DB2

Inicie sesión con el user name:
db2inst1

Abra una terminal de prueba de DB2 con los comandos db2stop y db2start.

Creemos una base de datos. Aquí, creo un nombre de prueba con el comando

db2 create database TEST – this can take a long time to complete

Prueba de conectar con comandos

db2 connect to TEST user db2inst1

How to find detailed information about the DB2 product installed in your environment?

`db2ls`

To determine the specific product installed:

db2ls -p -q -b <installpath>

To connect to the instance

su db2inst1

Connect to the command line processor

db2

Check if DB2 is running with:
- Checking DB2 instance status

```
ps -ef|grep db2sysc

The first process must appear

db2inst1  4308  4306  0 02:10 pts/0    00:00:00 db2sysc 0
henry     4346  2638  0 02:11 pts/0    00:00:00 grep –color=auto db2sysc
```

To know that the database is active

```
db2pd -
```

To list the names of instances of the database manager associated with the database product installation path where db2ilist is, run.

```
db2ilist
```

The GUI setup program holds one's hand the whole way, allowing one to setup db2inst1 and db2fenc1 users.

After the installation is complete, I ran visudo to add my user account to the sudoers file for DB2 management:
henryubuntu ALL=(db2inst1) /opt/ibm/db2/V11.1_01/bin/*
henryubuntu ALL=(db2fenc1) /opt/ibn/db2/V11.1_01/bin/*

Finally, I usually like to create the SAMPLE database so that I can test out SQL commands and other IBM tools on a test database that actually has a good amount of data and tables.

db2inst1$ cd /opt/ibm/db2/V11.1/bin/

db2inst1$ ./db2sampl

Then install Data Server Manager or optionally install Data Studio.

Using Data Server Manager, with local user execute run:

sudo setup.sh

The first user ID, is the user of the server manager.

In the Manage Sections part, the "Server user ID" is the name of the user system, meaning:

db2inst1

```
Note: To connect to a database in Data Studio create the database
with the command line first, because in Ubuntu the function "New
Database" doesn't work, well, neither in Data Server Manager, because
the clickable function not even exists.
```

Using Data Studio

First login with with the user name:

su db2inst1

Start the database

db2start

Log in to the database command line shell:

db2

List the databases

list database directory

Open Data Studio

Push button New Connection to a Database

Select the database manager:
DB2 for linux, UNIX and Windows

In properties write:

Database – The database name that appeared in the list database directory
Host – localhost
Port number – 50000
User name – The user name you are loggin in, db2inst1
Password – The password of the user name.

Now read the book of Data Studio or preferably of DB2, because some things may not work in the database GUI., like the button of New Database in Data Studio, it must be created by commands.

Add the launcher with application in terminal to start the database with the icon into:
/opt/IBM/DS4.1.3/dsmini

With the command:
su - db2inst1 -s /bin/bash -c /home/db2inst1/sqllib/adm/db2start