Experiment No. 7

Aim

Build and install software from source code, familiarity with make and cmake utilities expected.

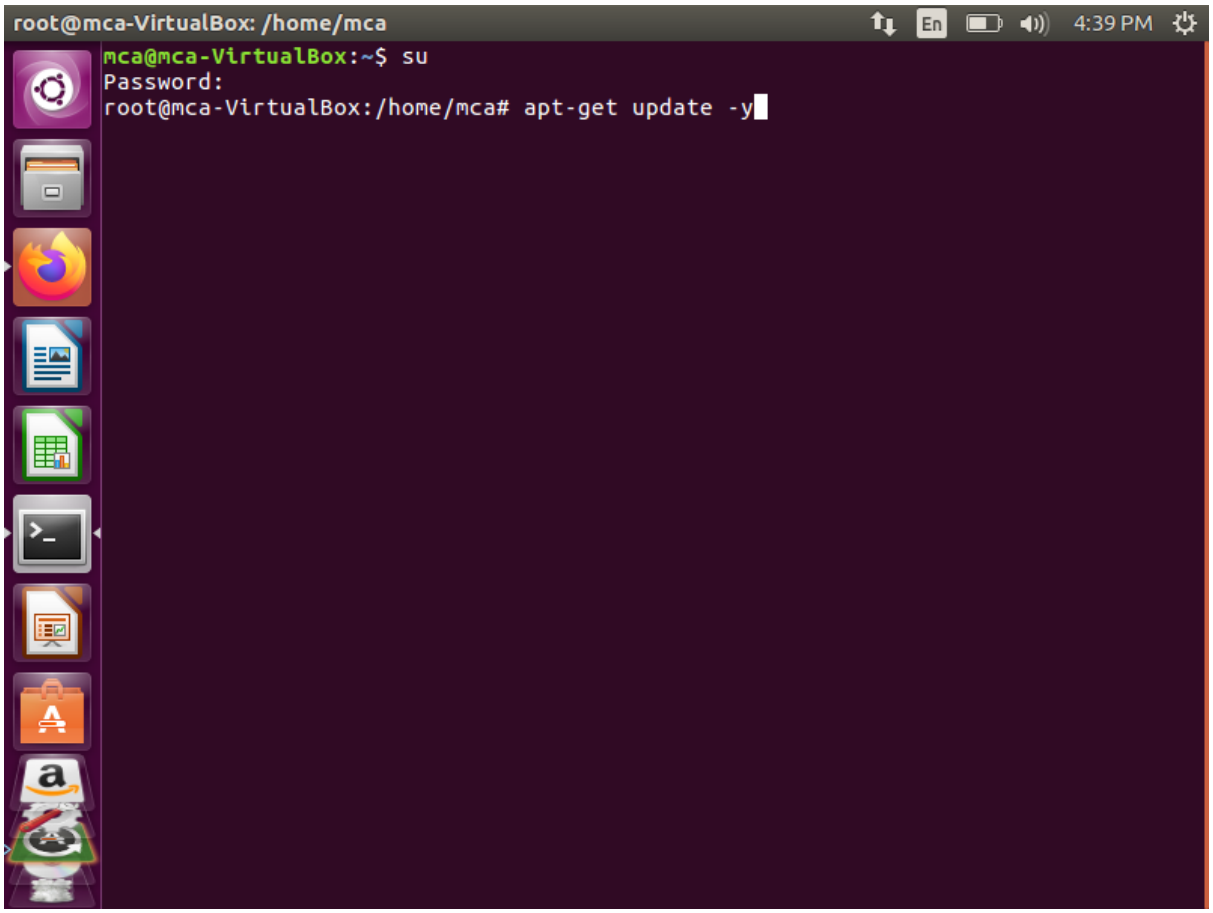
Procedure

Here you will be installing the git versioning software system. Make sure you are logged in as the root user.

- Step 1: Get The Server Ready

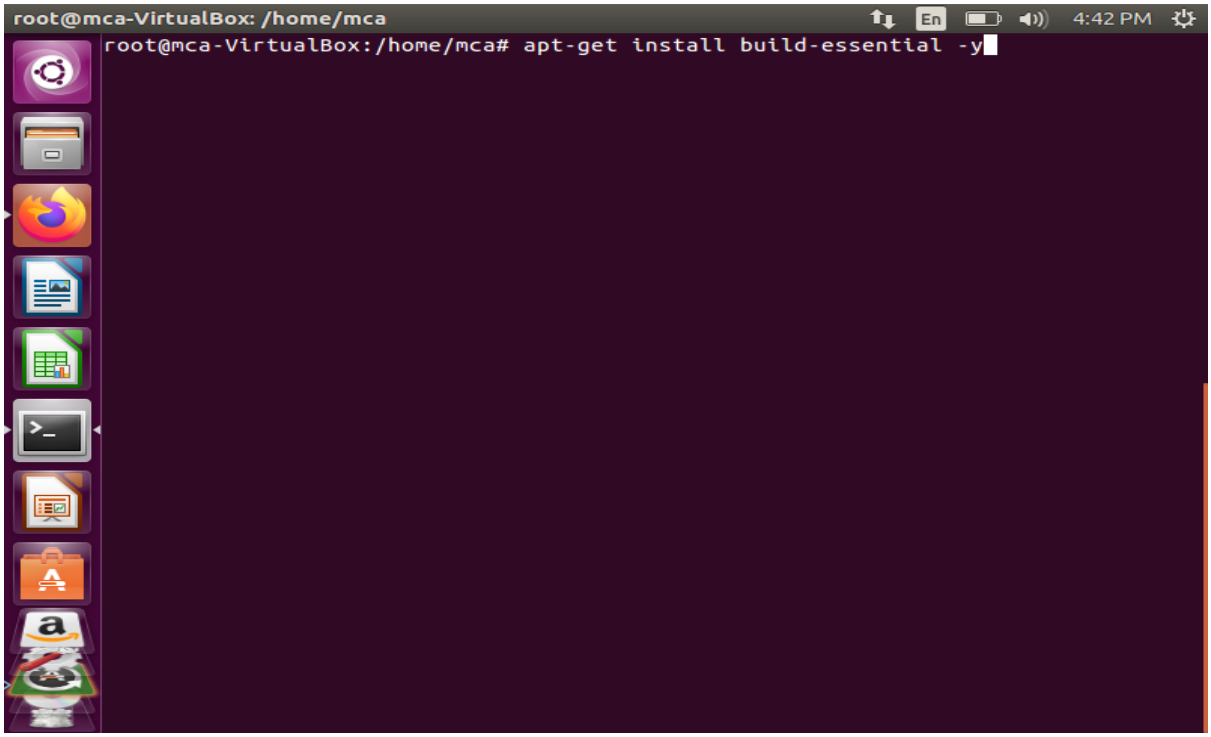
Make sure your packages are up to date:

```
apt-get update -y
```



- Next, you'll need to make sure you have a compiler available. Run this command to install build-essential:

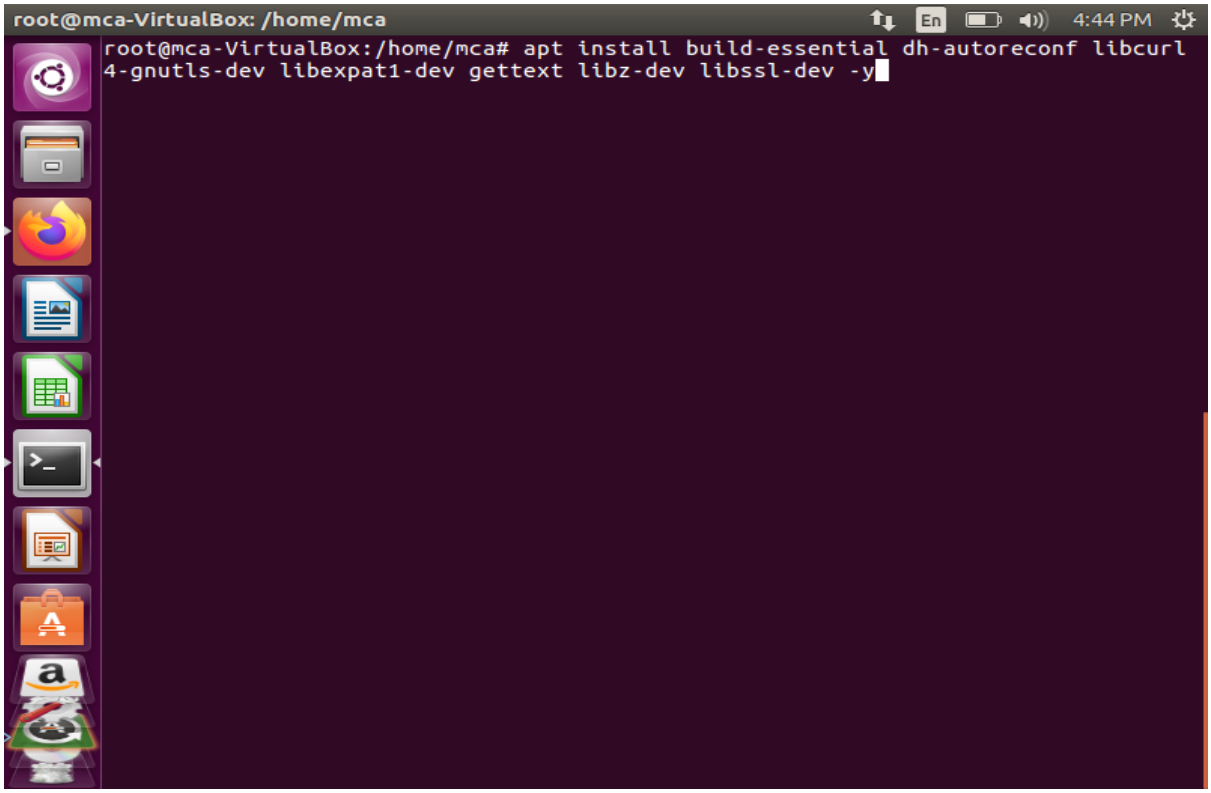
```
apt-get install build-essential -y
```



➢ Step 2: Download Dependencies

When installing a package from source code, you'll need to manage the installation of the package dependencies. We'll use apt-get to install git's dependencies:

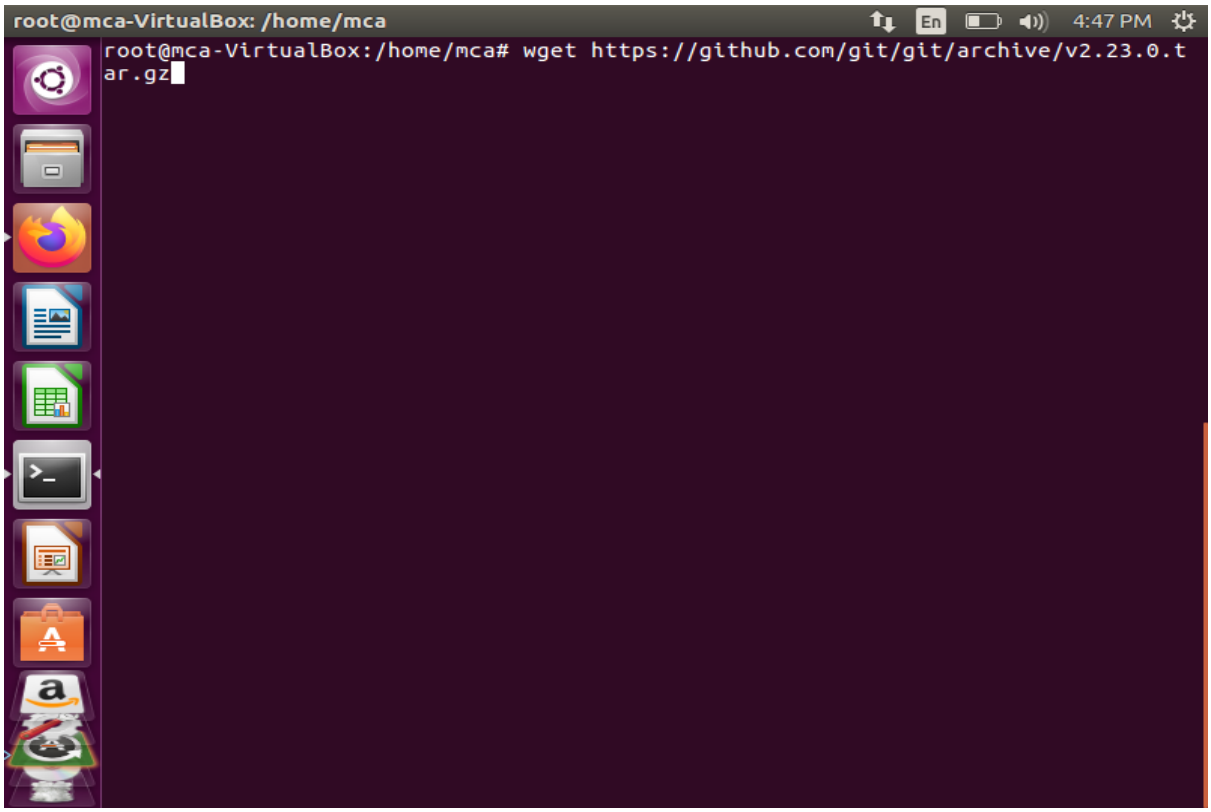
```
apt install build-essential dh-autoreconf libcurl4-gnutls-dev libexpat1-dev gettext libz-dev libssl-dev -y
```

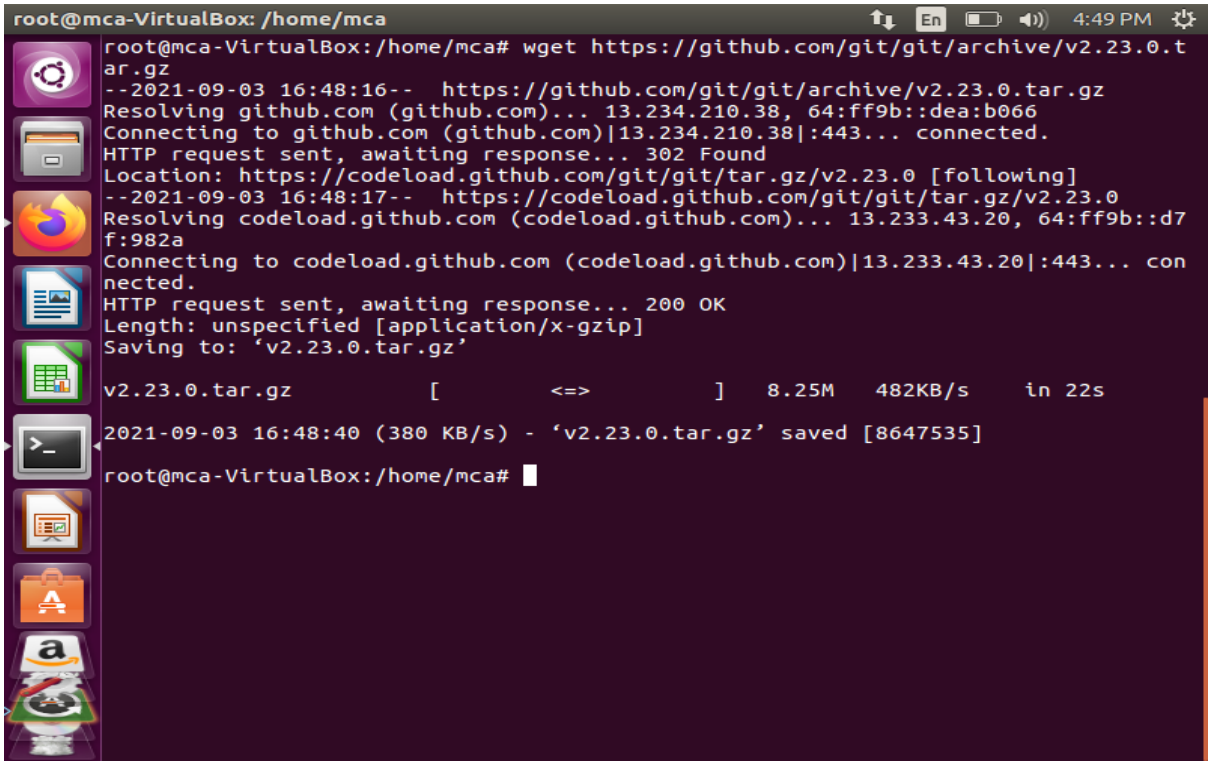


➢ Step 3: Download The Source Package

Once the package dependencies are in place, download the package with wget:

```
wget https://github.com/git/git/archive/v2.23.0.tar.gz
```

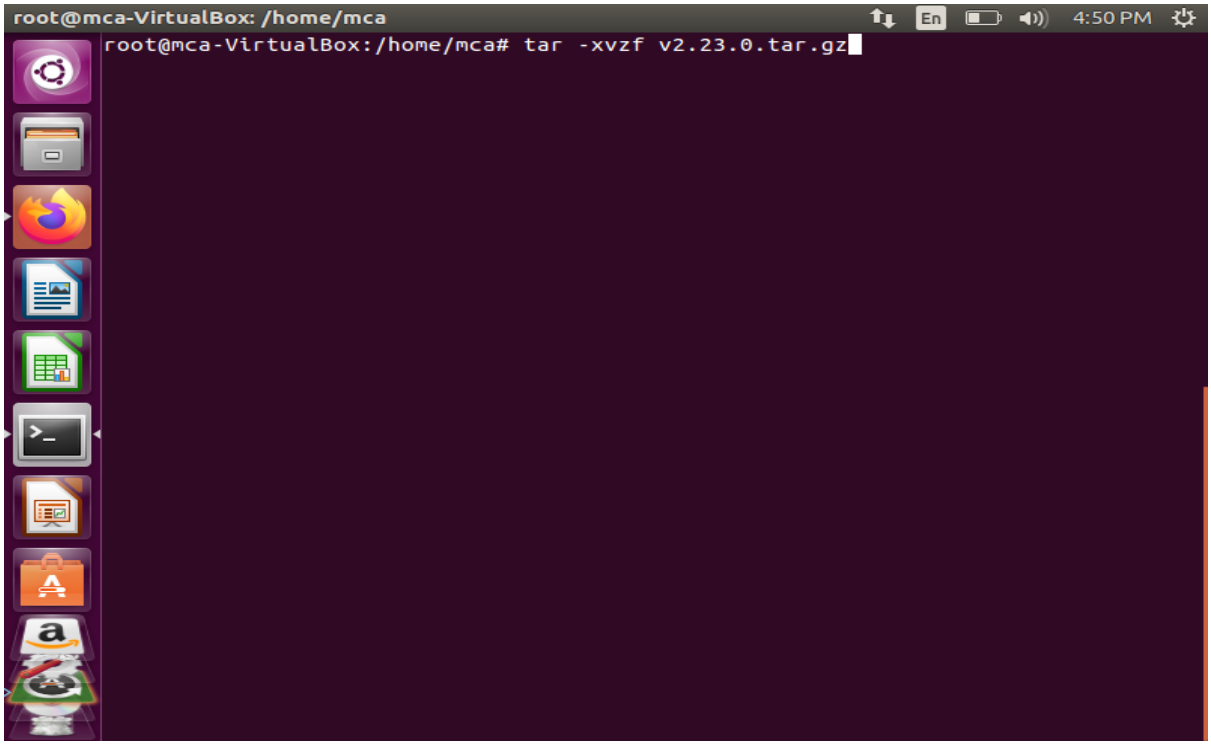


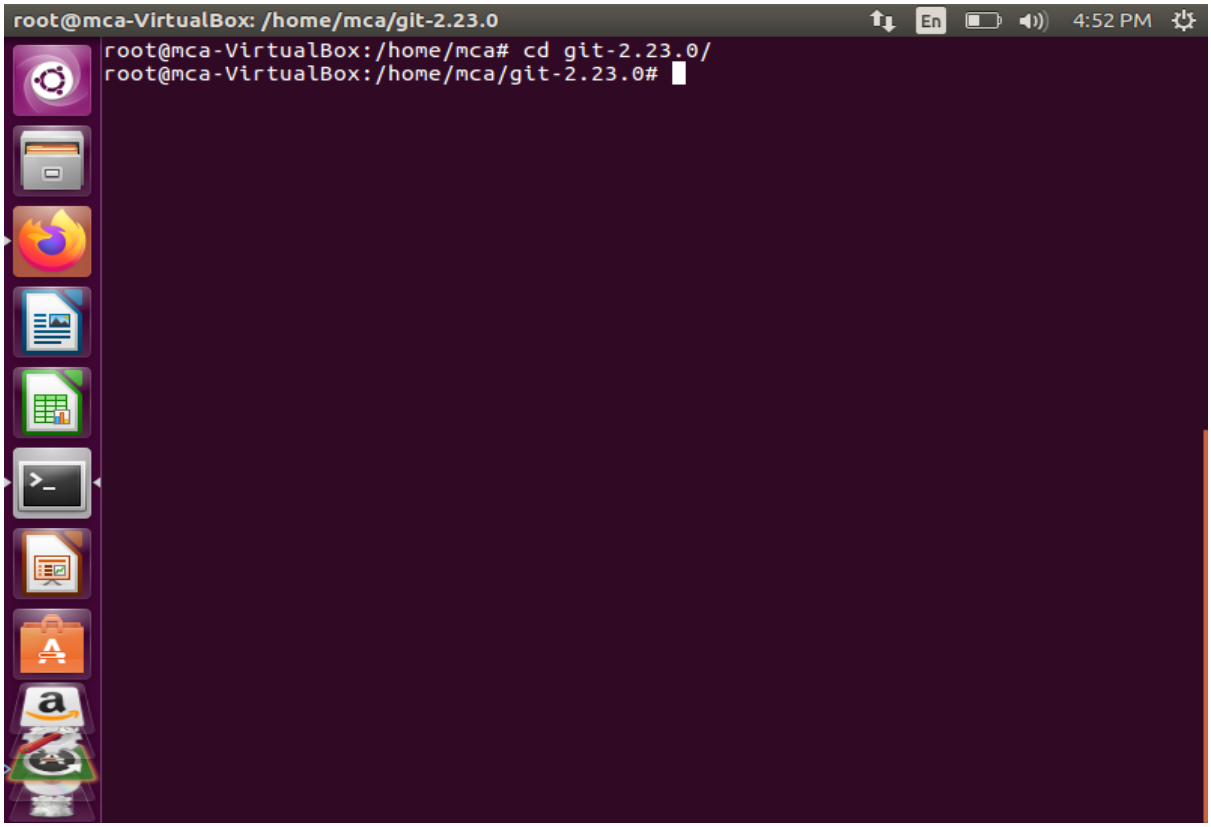


- Next, we need to extract the archive and cd (change directories) into the new git directory:

`tar -xvzf v2.23.0.tar.gz`

`cd git-2.23.0/`





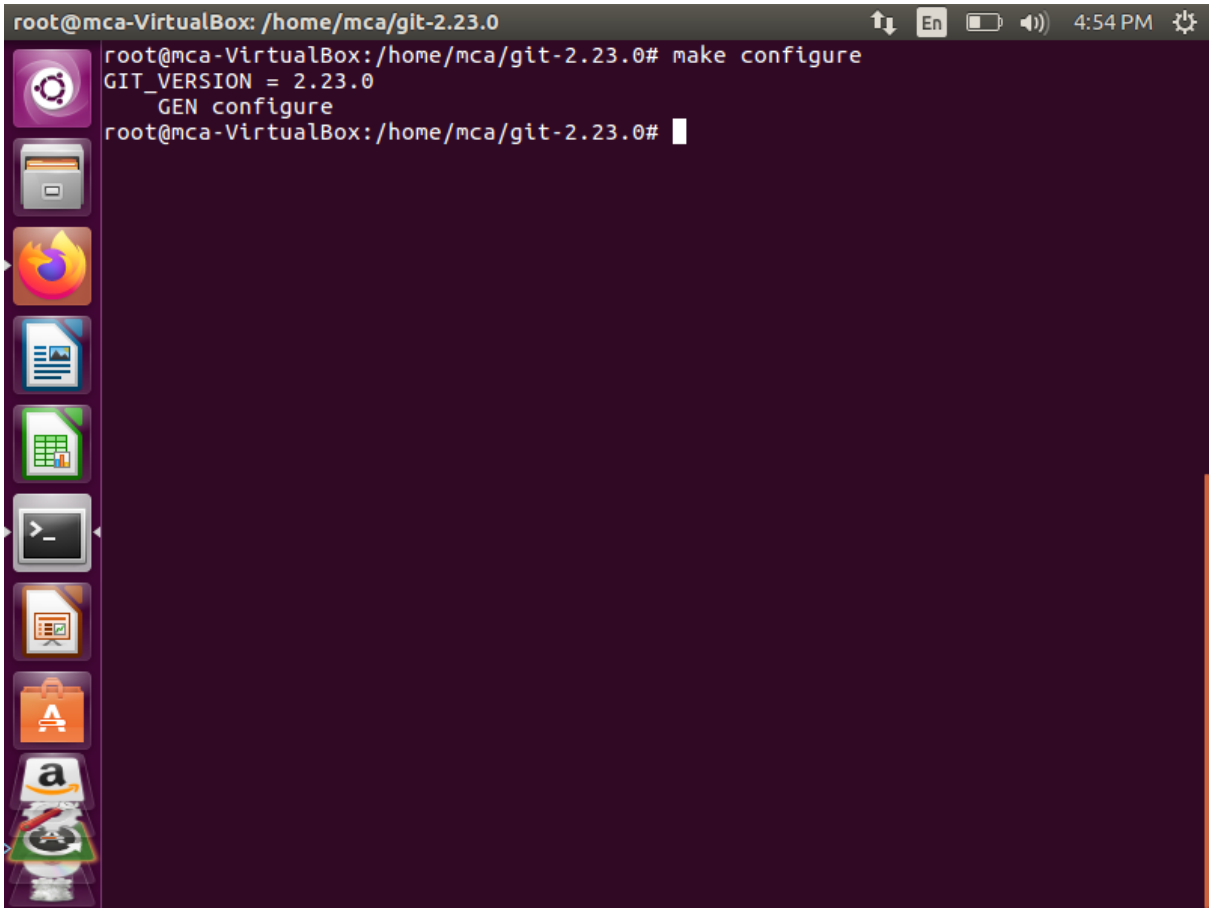
➢ Step 4: Install Git

Now that we have our package extracted and ready to go, we need to configure it:

```
make configure
```

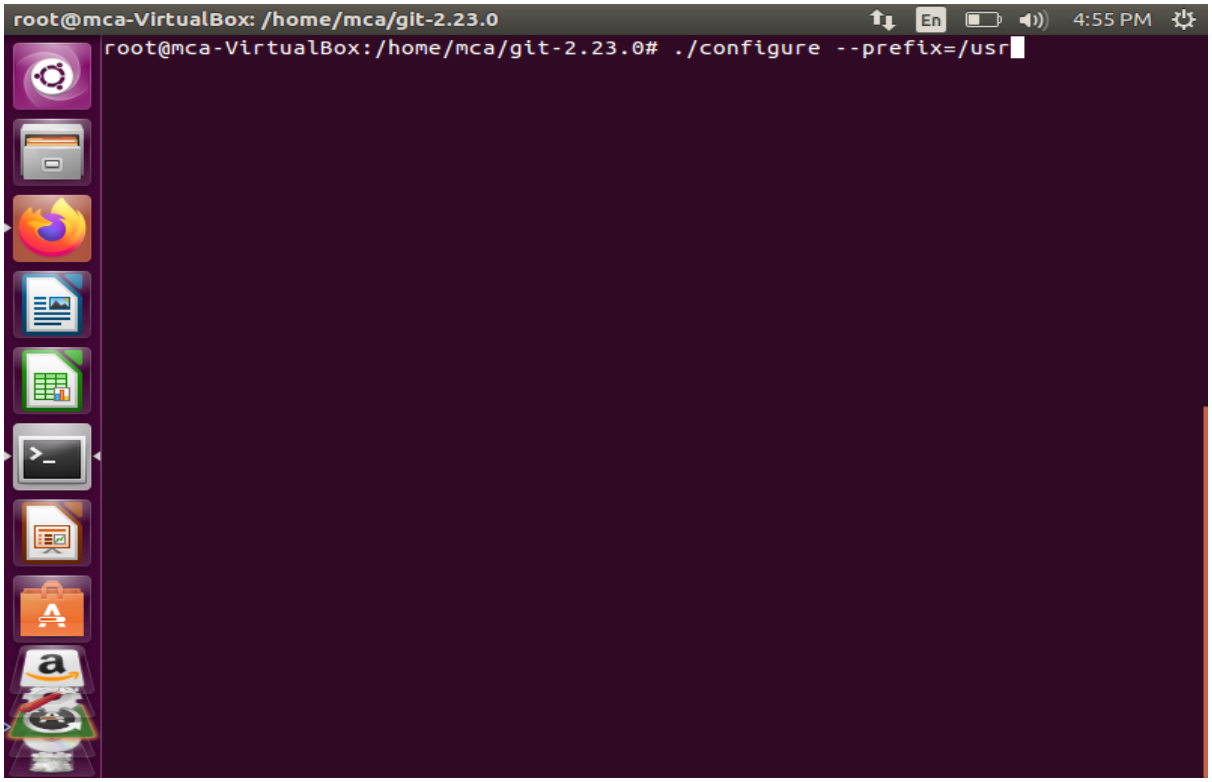
You should see an output similar to this:

```
GIT_VERSION = 2.23.0
GEN configure
```



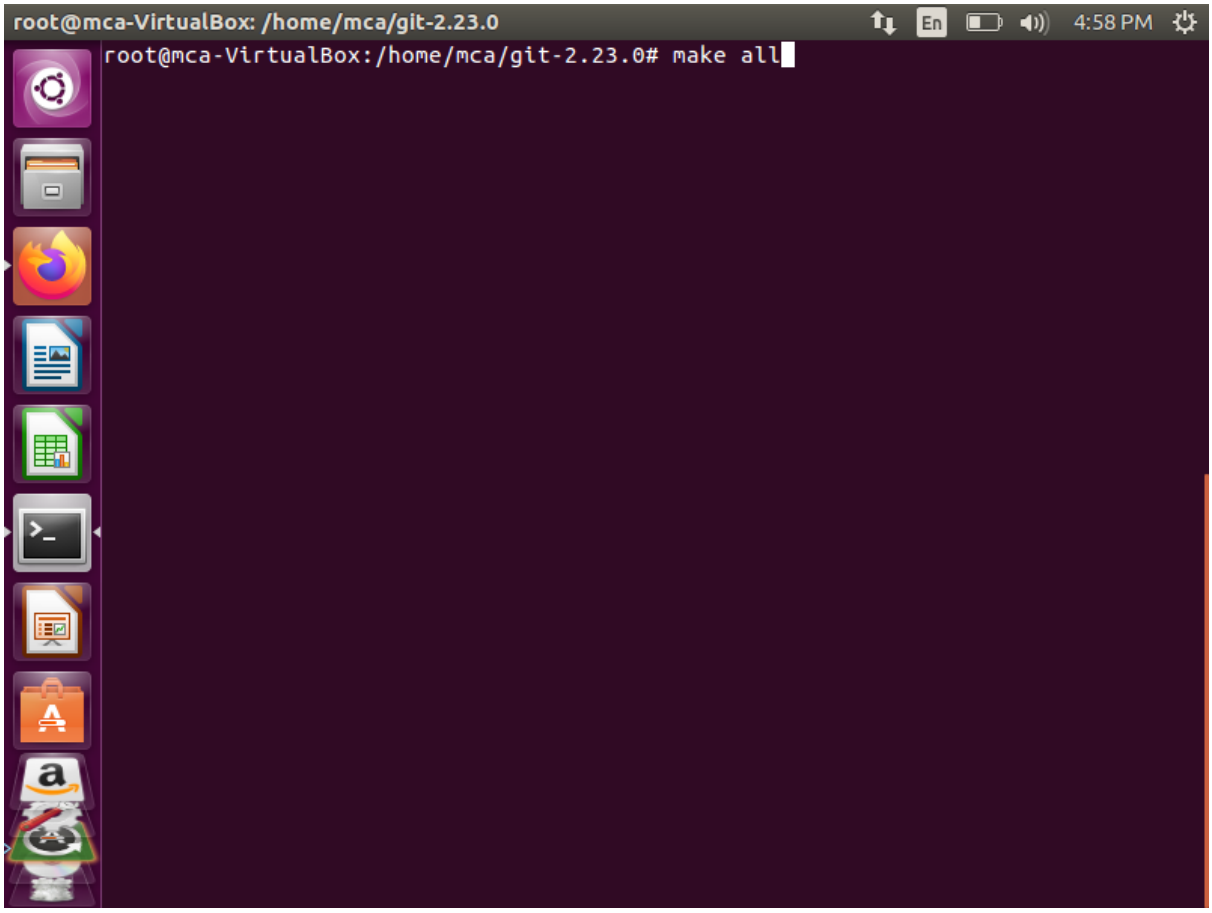
- Next, let's verify that all of the dependencies necessary to build the package are available by running this command:

```
./configure --prefix=/usr
```



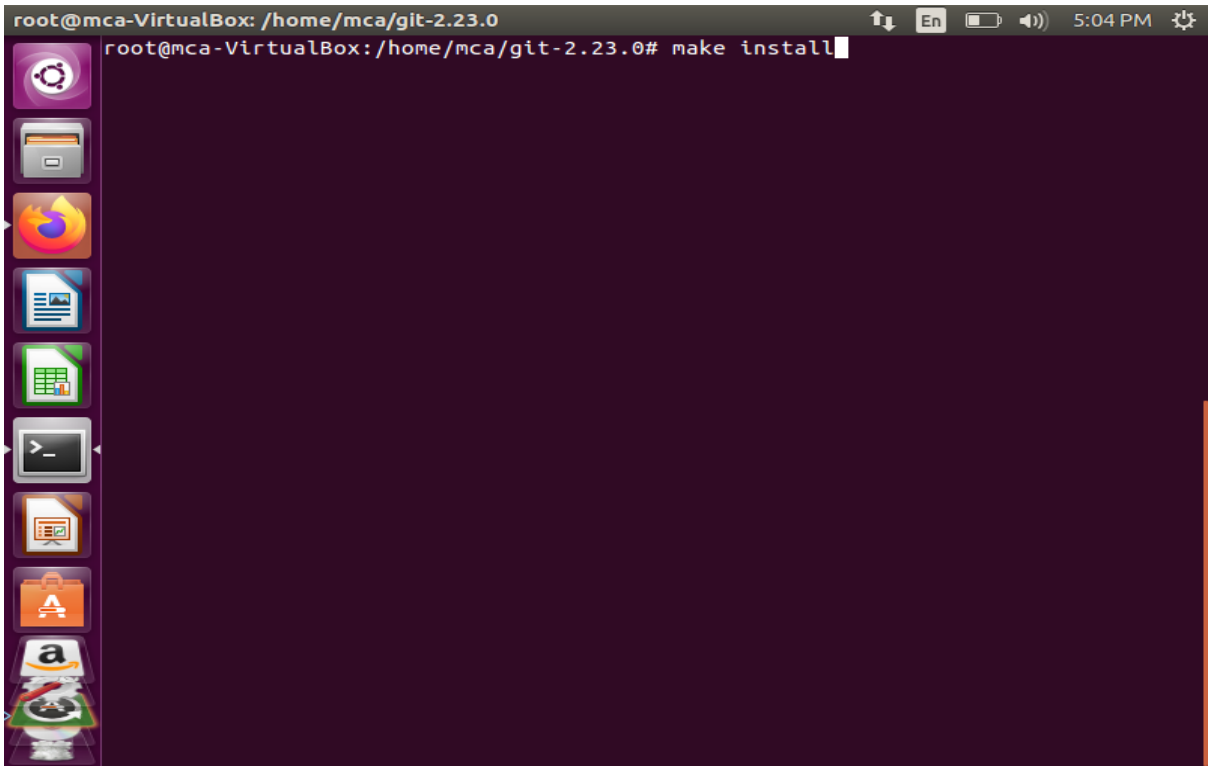
- After that, we'll build the source code:

```
make all
```



- Now afterthe binaries are all built, install git:

```
make install
```



- Verify that git is working with version 2.23.0:

```
git -version
```