Instalasi Eprints di Ubuntu 18.04 Server LTS
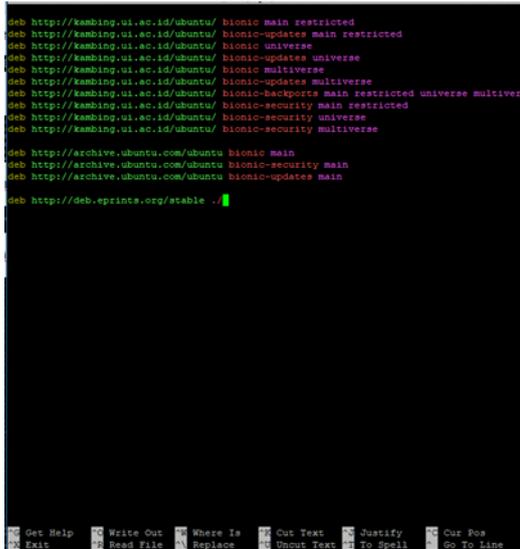
Oleh : Muhamad Hamim, S.Kom.

1. Edit source list

   $ nano /etc/apt/sources.list

   Tambahkan script resources eprints for debian

   $ deb http://deb.eprints.org/stable ./

   ```
   deb http://kambing.ui.ac.id/ubuntu/ bionic main restricted
   deb http://kambing.ui.ac.id/ubuntu/ bionic-updates main restricted
   deb http://kambing.ui.ac.id/ubuntu/ bionic universe
   deb http://kambing.ui.ac.id/ubuntu/ bionic-updates universe
   deb http://kambing.ui.ac.id/ubuntu/ bionic multiverse
   deb http://kambing.ui.ac.id/ubuntu/ bionic-updates multiverse
   deb http://kambing.ui.ac.id/ubuntu/ bionic-backports main restricted universe multivers
   deb http://kambing.ui.ac.id/ubuntu/ bionic-security main restricted
   deb http://kambing.ui.ac.id/ubuntu/ bionic-security universe
   deb http://kambing.ui.ac.id/ubuntu/ bionic-security multiverse

   deb http://archive.ubuntu.com/ubuntu bionic main
   deb http://archive.ubuntu.com/ubuntu bionic-security main
   deb http://archive.ubuntu.com/ubuntu bionic-updates main

   deb http://deb.eprints.org/stable ./

   ^G Get Help    ^O Write Out   ^W Where Is    ^K Cut Text    ^J Justify     ^C Cur Pos
   ^X Exit        ^R Read File   ^\ Replace     ^U Uncut Text  ^T To Spell    ^_ Go To Line
   ```

   Simpan dan keluar dari editor.

2. Jalankan script

   $ wget -O - http://deb.eprints.org/keyFile | apt-key add
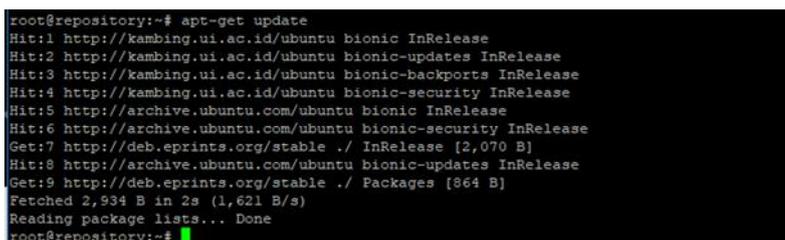
   ```
   root@repository:~# wget -O - http://deb.eprints.org/keyFile | apt-key add
   --2018-08-21 01:27:52--  http://deb.eprints.org/keyFile
   Resolving deb.eprints.org (deb.eprints.org)... 152.78.189.196
   Connecting to deb.eprints.org (deb.eprints.org)|152.78.189.196|:80... connected.
   HTTP request sent, awaiting response... 200 OK
   Length: 1641 (1.6K) [text/plain]
   Saving to: 'STDOUT'

   -                      100%[=========================>]   1.60K  1.18KB/s    in 1.4s

   2018-08-21 01:27:55 (1.18 KB/s) - written to stdout [1641/1641]

   OK
   root@repository:~#
   ```

3. Jalankan update : apt-get update

   ```
   root@repository:~# apt-get update
   Hit:1 http://kambing.ui.ac.id/ubuntu bionic InRelease
   Hit:2 http://kambing.ui.ac.id/ubuntu bionic-updates InRelease
   Hit:3 http://kambing.ui.ac.id/ubuntu bionic-backports InRelease
   Hit:4 http://kambing.ui.ac.id/ubuntu bionic-security InRelease
   Hit:5 http://archive.ubuntu.com/ubuntu bionic InRelease
   Hit:6 http://archive.ubuntu.com/ubuntu bionic-security InRelease
   Get:7 http://deb.eprints.org/stable ./ InRelease [2,070 B]
   Hit:8 http://archive.ubuntu.com/ubuntu bionic-updates InRelease
   Get:9 http://deb.eprints.org/stable ./ Packages [864 B]
   Fetched 2,934 B in 2s (1,621 B/s)
   Reading package lists... Done
   root@repository:~#
   ```

4. Jalankan proses instalasi eprints

$ apt-get install eprints

Tunggu sampai proses selanjutnya.

```
1 upgraded, 291 newly installed, 0 to remove and 18 not upgraded.
Need to get 177 MB of archives.
After this operation, 880 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

Tunggu proses instalasi selesai

```
6.1-2 [10.6 kB]
Get:4 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libaprutil1-ldap amd64 1.6.1-2 [
8,764 B]
Get:5 http://kambing.ui.ac.id/ubuntu bionic/main amd64 liblua5.2-0 amd64 5.2.4-1.1build
1 [108 kB]
Get:6 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 libxml2 amd64 2.9.4+dfsg
1-6.1ubuntu1.2 [663 kB]
Get:7 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 apache2-bin amd64 2.4.29
-1ubuntu4.2 [1,071 kB]
Get:8 http://deb.eprints.org/stable ./ eprints 3.3.16 [2,184 kB]
Get:9 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 apache2-utils amd64 2.4.
29-1ubuntu4.2 [83.5 kB]
Get:10 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 apache2-data all 2.4.29
-1ubuntu4.2 [160 kB]
Get:11 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 apache2 amd64 2.4.29-1u
buntu4.2 [95.1 kB]
Get:12 http://kambing.ui.ac.id/ubuntu bionic/main amd64 fonts-dejavu-core all 2.37-1 [1
,041 kB]
Get:13 http://kambing.ui.ac.id/ubuntu bionic/main amd64 fontconfig-config all 2.12.6-0u
buntu2 [55.8 kB]
Get:14 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libfontconfig1 amd64 2.12.6-0ub
untu2 [137 kB]
Get:15 http://kambing.ui.ac.id/ubuntu bionic/main amd64 fontconfig amd64 2.12.6-0ubuntu
2 [169 kB]
Get:16 http://kambing.ui.ac.id/ubuntu bionic/main amd64 fonts-droid-fallback all 1:6.0.
1r16-1.1 [1,805 kB]
Get:17 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 libjpeg-turbo8 amd64 1.
5.2-0ubuntu5.18.04.1 [110 kB]
Get:18 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libgomp1 amd64 8-20180414-1ubun
tu2 [76.8 kB]
Get:19 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libfftw3-double3 amd64 3.3.7-1
[735 kB]
Get:20 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libjbig0 amd64 2.1-3.1build1 [2
6.7 kB]
Get:21 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libjpeg8 amd64 8c-2ubuntu8 [2,1
94 B]
Get:22 http://kambing.ui.ac.id/ubuntu bionic/main amd64 liblcms2-2 amd64 2.9-1 [139 kB]
Get:23 http://kambing.ui.ac.id/ubuntu bionic/main amd64 liblqr-1-0 amd64 0.4.2-2.1 [27.
7 kB]
Get:24 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libltdl7 amd64 2.4.6-2 [38.8 kB
]
Get:25 http://kambing.ui.ac.id/ubuntu bionic/main amd64 libtiff5 amd64 4.0.9-5 [152 kB]
Get:26 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 imagemagick-6-common al
l 8:6.9.7.4+dfsg-16ubuntu6.3 [60.7 kB]
Get:27 http://kambing.ui.ac.id/ubuntu bionic-updates/main amd64 libmagickcore-6.q16-3 a
md64 8:6.9.7.4+dfsg-16ubuntu6.3 [1,615 kB]
5% [27 libmagickcore-6.q16-3 281 kB/1,615 kB 17%] [8 eprints 759 kB/2,184 kB 35%]
```

Proses instalasi selesai dengan ditandai dengan interface petunjuk penggunaan eprints
seperti gambar di bawah ini :

5. Langkah selanjutnya adalah membuat user di mysql database untuk eprints

Pada operating system Ubuntu versi 14 atau 16, pembuatan repository dapat langsung dilakukan karena sudah mengetahui root password MySQL ketika proses instalasi. Pada versi 18, terlebih dahulu harus melakukan setting (mengisi) password root user MySQL.

$ mysql –u root -p

$ use mysql;

$ ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'new_password';

$ flush privileges;

6. konfigurasi repository

Untuk memulai eprints, maka perlu terlebih dahulu melakukan konfigurasi instalasi eprints. Langkah-langkah mengkonfigurasi adalah :

a. Log in sebagai user untuk mengoperaasikan eprints.

$ su eprints

b. Masuk ke home directory eprints

$ cd /usr/share/eprints3

```
eprints@repository:/root$ cd /usr/share/eprints3/
eprints@repository:~$
```

c. Membuat epadmin (repository)

$ ./bin/epadmin create

```
eprints@repository:~$ ./bin/epadmin create
```

Langkah selanjutnya adalah membuat repository dengan melakukan beberapa isian
sebagai berikut :

Nama Repository

```
Create an EPrint Repository

Please select an ID for the repository, which will be used to create a directory
and identify the repository. Lower case letters and numbers, may not start with
a number. examples: "lemurprints" or "test3"

Archive ID? repository
```

Configure vital settings (jawaban yes atau langsung menekan tombol enter karena
jawaban defaultnya [yes])

```
Creating initial files:
Installing: /usr/share/eprints3/archives/repository/cfg
Installing: /usr/share/eprints3/archives/repository/cfg/workflows
Installing: /usr/share/eprints3/archives/repository/cfg/workflows/user
Installing: /usr/share/eprints3/archives/repository/cfg/workflows/eprint
Installing: /usr/share/eprints3/archives/repository/cfg/lang
Installing: /usr/share/eprints3/archives/repository/cfg/lang/en
Installing: /usr/share/eprints3/archives/repository/cfg/lang/en/phrases
Installing: /usr/share/eprints3/archives/repository/cfg/lang/en/static
Installing: /usr/share/eprints3/archives/repository/cfg/lang/en/static/help
Installing: /usr/share/eprints3/archives/repository/cfg/namedsets
Installing: /usr/share/eprints3/archives/repository/cfg/citations
Installing: /usr/share/eprints3/archives/repository/cfg/citations/user
Installing: /usr/share/eprints3/archives/repository/cfg/citations/document
Installing: /usr/share/eprints3/archives/repository/cfg/citations/eprint
Installing: /usr/share/eprints3/archives/repository/cfg/static
Installing: /usr/share/eprints3/archives/repository/cfg/static/style
Installing: /usr/share/eprints3/archives/repository/cfg/static/style/auto
Installing: /usr/share/eprints3/archives/repository/cfg/static/javascript
Installing: /usr/share/eprints3/archives/repository/cfg/static/javascript/auto
Installing: /usr/share/eprints3/archives/repository/cfg/static/images
Installing: /usr/share/eprints3/archives/repository/cfg/cfg.d

Ok. I've created the initial config files and directory structure.
I've also created a "disk0" directory under documents/ if you want
your full texts to be stored on a different partition then remove
the disk0, and create a symbolic link to the directory you wish to
store the full texts in. Additional links may be placed here to be
used when the first is full.


Configure vital settings? [yes] ?
```

Memasukkan nama host eprints

```
Please enter the fully qualified hostname of the repository.

For a production system we recommend against using the real hostname of the
machine.

Example: repository.footle.ac.uk

Hostname? repository.iainkediri.ac.id
```

4

Tentukan port web server, jika sesuai dengan nilai default, langsung tekan tombol enter.

```
Please enter the port of the webserver. This is probably 80, but you may wish
to run apache on a different port if you are experimenting.

Webserver Port [80] ?
```

Tahap selanjutnya adalah menentukan alias alamat untuk hostname. Jika tidak ingin memberikan alamat, maka isian bias dikosongkan dengan cara menekan tombol enter.

```
Please enter all the aliases which could reach the repository, and indicate if
you would like EPrints to write a Redirect Rule to redirect requests to this
alias to the correct URL.
Some suggestions:
repository.mydomain.com
repository.mydomain
repository
repository.iainkediri
repository

Enter a single hash (#) when you're done.

Alias (enter # when done) [#] ?
```

Langkah selanjutnya adalah menentukan path (folder instalasi). Nilai defaultnya adalah "/" dan biasanya tanda tersebut yang dipakai. Langsung menuju ke langkah selanjutnya dengan menekan tombol enter.

```
Please enter the path part of the repository's base URL. This should probably
be '/'.
Path [/] ?
```

Menentukan secure hostname (https) untuk alamat eprints. Sebelum menentukan https, terlebih dahulu harus melakukan setting secure conection yang digunakan oleh koneksi server. Jika tidak ingin mengisikan secure hostname, dapat dilewati proses ini dengan menekan tombol enter karena default nilainya [].

```
If you will use https for your user pages (including login) enter the https hostname
here, or leave blank when using http only.

HTTPS Hostname [] ?
```

Memasukkan alamat email administrator eprints

```
Administrator Email? library@iainkediri.ac.id
```

Memasukkan nama test repository yang telah dibuat

```
Archive Name [Test Repository] ? Repository IAIN Kediri
```

Menjawab pertanyaan penyimpanan dasar repository eprints. Tekan tombol enter untuk menjawab yes.

```
Write these core settings? [yes] ?
Wrote /usr/share/eprints3/archives/repository/cfg/cfg.d/adminemail.pl
Wrote /usr/share/eprints3/archives/repository/cfg/cfg.d/10_core.pl
Wrote /usr/share/eprints3/archives/repository/cfg/lang/en/phrases/archive_name.xml
```

Tahapan berikutnya adalah menentukan database eprints.

```
Configure database? [yes] ?
```

Memberikan nama untuk database repository.

```
Configuring Database for: repository
Database Name [repository] ? repositorydb
```

Menentukan host mysql database. Jika sudah sesuai dengan nilai defaultnya, tekan tombol enter.

```
MySQL Host [localhost] ?
```

Menentukan port dan socket untuk MySQL. Jika sudah sesuai dengan nilai defaultnya, tekan tombol enter.

```
You probably don't need to set socket and port (unless you do!?).
MySQL Port (# for no setting) [#] ?
MySQL Socket (# for no setting) [#] ?
```

Setting user database.

```
Database User [repository] ?
```

Setting password database

```
Database Password [Pj5M5zvy] ?
```

Setting database engine (tekan enter).

```
Database Engine [MyISAM] ?
```

Menjawab pertanyaan penyimpanan setting database. Tekan tombol enter untuk ke proses selanjutnya.

```
Write these database settings? [yes] ?
Wrote /usr/share/eprints3/archives/repository/cfg/cfg.d/database.pl

EPrints can create the database, and grant the correct permissions.

Create database "repositorydb" [yes] ?
```

Setting superuser username mysql. Sesuaikan dengan user root password yang sudah dibuat pada point 5 diatas.

```
Database Superuser Username [root] ?
Database Superuser Password?
Create database tables? [yes] ?
Creating database tables...
Set DB compatibility flag to '3.3.4'.
Done creating database tables.
```

Membuat inisial user. Tekan enter untuk ke setting berikutnya.

```
Create an initial user? [yes] ?
```

Melakukan setting admin user dan password repository

```
Enter a username [admin] ?
Select a user type (user|editor|admin) [admin] ?
Enter Password?
Email? muhamadhamim@iainkediri.ac.id

Successfully created new user:
        ID: 1
```

Setting terakhir dalam proses create repository adalah memilih untuk membuat web static, impor subyek dari LOC (Library of Congres) dan update apache config files. Semuanya pilih nilai defaultnya dengan cara menekan tombol enter.

```
Do you want to build the static web pages? [yes] ?

Starting EPrints Repository.
Connecting to DB ... done.
mkdir /usr/share/eprints3/archives/repository/html/en/style/images
/usr/share/eprints3/lib/static/style/images/multi_up_dim.png -> /usr/share/eprints3/arc
hives/repository/html/en/style/images/multi_up_dim.png
/usr/share/eprints3/archives/repository/cfg/lang/en/static/contact.xpage -> /usr/share/
eprints3/archives/repository/html/en/contact.html
Writing: /usr/share/eprints3/archives/repository/html/en/contact
mkdir /usr/share/eprints3/archives/repository/html/en/codemirror
/usr/share/eprints3/lib/static/codemirror/LICENSE -> /usr/share/eprints3/archives/repos
itory/html/en/codemirror/LICENSE
/usr/share/eprints3/lib/static/flowplayer-LICENSE.txt -> /usr/share/eprints3/archives/r
epository/html/en/flowplayer-LICENSE.txt
mkdir /usr/share/eprints3/archives/repository/html/en/help
/usr/share/eprints3/archives/repository/cfg/lang/en/static/help/index.xpage -> /usr/sha
re/eprints3/archives/repository/html/en/help/index.html
Writing: /usr/share/eprints3/archives/repository/html/en/help/index
/usr/share/eprints3/archives/repository/cfg/lang/en/static/vlit.xpage -> /usr/share/epr
ints3/archives/repository/html/en/vlit.html
Writing: /usr/share/eprints3/archives/repository/html/en/vlit
/usr/share/eprints3/lib/static/style/images/blackline.png -> /usr/share/eprints3/archiv
es/repository/html/en/style/images/blackline.png
mkdir /usr/share/eprints3/archives/repository/html/en/images
/usr/share/eprints3/lib/static/images/logo_small.png -> /usr/share/eprints3/archives/re
pository/html/en/images/logo_small.png
mkdir /usr/share/eprints3/archives/repository/html/en/codemirror/mode/php
/usr/share/eprints3/lib/static/codemirror/mode/php/index.html -> /usr/share/eprints3/ar
chives/repository/html/en/codemirror/mode/php/index.html
/usr/share/eprints3/lib/static/favicon.ico -> /usr/share/eprints3/archives/repository/h
tml/en/favicon.ico
```

```
Do you want to import the LOC subjects? [yes] ?

Starting EPrints Repository.
Connecting to DB ... done.
Importing from /usr/share/eprints3/archives/repository/cfg/subjects...
Done importing 280 subjects from /usr/share/eprints3/archives/repository/cfg/subjects
Reindexing subject dataset to set ancestor data
Reindexing item: subject/A
Reindexing item: subject/AC
Reindexing item: subject/AI
Reindexing item: subject/AM
Reindexing item: subject/AS
Reindexing item: subject/AZ
Reindexing item: subject/B
Reindexing item: subject/Bl
Reindexing item: subject/BC
Reindexing item: subject/BD
Reindexing item: subject/BF
Reindexing item: subject/BH
Reindexing item: subject/BJ
Reindexing item: subject/BL
Reindexing item: subject/BM
Reindexing item: subject/BP
Reindexing item: subject/BQ
Reindexing item: subject/BR
Reindexing item: subject/BS
Reindexing item: subject/BT
Reindexing item: subject/BV
Reindexing item: subject/BV1460
Reindexing item: subject/BX
Reindexing item: subject/C
Reindexing item: subject/Cl
Reindexing item: subject/CB
Reindexing item: subject/CC
Reindexing item: subject/CD
Reindexing item: subject/CD921
Reindexing item: subject/CE
Reindexing item: subject/CJ
Reindexing item: subject/CN
Reindexing item: subject/CR
Reindexing item: subject/CS
Reindexing item: subject/CT
Reindexing item: subject/D
Reindexing item: subject/D051
Reindexing item: subject/Dl
Reindexing item: subject/Dlll
Reindexing item: subject/D204
Reindexing item: subject/D501
Reindexing item: subject/D731
Reindexing item: subject/D839
Reindexing item: subject/D880
```

```
Exiting normally.
Do you want to update the apache config files? (you still need to add the 'In
line) [yes] ?
Wrote /usr/share/eprints3/cfg/apache.conf
Wrote /usr/share/eprints3/cfg/apache_ssl.conf
Wrote /usr/share/eprints3/cfg/apache/repository.conf

Add the following line to your apache configuration:
       Include /usr/share/eprints3/cfg/apache.conf

You must restart apache for any changes to take effect!

------------------------------------------------------------------------
That seemed to more or less work...
------------------------------------------------------------------------

Now make any required changes to the cfg files.

Note that changing the metadata configuration may require the database
tables to be regenerated. epadmin erase_data will regenerate the
eprints and documents tables only. erase_data will regenerate everything.
(nb. these also do erase the contents of the tables, and any uploaded
files).

Make sure that your main apache config file contains the line:

 Include /usr/share/eprints3/cfg/apache.conf

Then stop and start your webserver:
Often:
 /etc/rc.d/init.d/httpd stop
 /etc/rc.d/init.d/httpd start
(or maybe /usr/local/apache/bin/apachectl stop & start)

And then try connecting to your repository.
------------------------------------------------------------------------

Don't forget to register your repository at http://roar.eprints.org/
```

Setelah proses setting repository ini selesai, maka akan otomatis keluar dari proses pembuatan repository dan kembali ke terminal dengan default folder /usr/share/eprints3.

d. Keluar folder eprints

$ exit

```
eprints@repository:~$ exit
exit
```

e. Mengaktifkan konfigurasi "virtual host" eprints yang telah dibuat.

$ a2ensite eprints

```
ot@repository:~# a2ensite eprints
abling site eprints.
 activate the new configuration, you need to run:
systemctl reload apache2
```

f. Restart service apache

$ apache2ctl restart

```
root@repository:~# apache2ctl restart
```

g. Jika terjadi kesalahan pada saat membuat repository, maka dapat **dihapus** melalui root login dengan perintah :

$ rm –rf /usr/share/eprints3/archives/nama_reposiory

7. Akses ke web repository

Setelah proses instalasi selesai, maka langkah selanjutnya adalah mengkoneksikan server repository yang telah selesai diinstal tersebut dengan domain lembaga. Syarat agar dapat terkoneksi dengan domain lembaga adalah setting Internet Protocol dengan menggunakan internet protocol publik. Setting tidak dapat dilakukan pada *internet protocol* lokal. Setting koneksi dilakukan pada pusat *control panel* domain lembaga. Setelah proses setting selesai, maka web repository dapat diakses secara online dengan menggunakan subdomain yang telah dikoneksikan dengan IP Public server repository.