

# Magento

## Open Source E-Commerce Platform

### Report

**Submitted by:** Areeka Nankani(1512140)

Sadhna Lohano(1512161)

**Submitted To:** Owais Kazmi

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## What is MAGENTO?

Magento is an ecommerce platform built on open source technology which provides online merchants with a flexible shopping cart system, as well as control over the look, content and functionality of their online store. Magento offers powerful marketing, search engine optimization, and catalog-management tools.

Magento is a powerful and highly flexible open-source e-Commerce platform (or content management system (CMS)) written in PHP. It ships in two main editions: Enterprise and Community edition. The Community Edition is intended for developers and small businesses.

It is fully customizable to meet users requirements enabling them to setup and manage a fully operational e-Commerce store in minutes. Magento runs on such web servers as Apache, Nginx and IIS, a backend databases: MySQL or MariaDB, Percona.

### Requirements for installation and configuration:

- Apache version 2.2 or 2.4
- PHP version 5.6 or 7.0.x or later with required extensions
- MySQL version 5.6 or later

Now we will start the installation of magento and its required softwares

## Step 1: Installing Apache Web Server

1. Installing Apache web server is so simple, from the official repositories:  
# yum install httpd

```
[root@osboxes osboxes]# yum install httpd
Loaded plugins: fastestmirror, langpacks
base | 3.6 kB 00:00
extras | 3.4 kB 00:00
(1/3): extras/7/x86_64/primary_db | 145 kB 00:00:02
(2/3): base/7/x86_64/group_gz | 156 kB 00:00:06
(3/3): base/7/x86_64/primary_db | 5.7 MB 00:01:18
Determining fastest mirrors
* base: centos.mirror.com
* extras: centos-hcm.viettelidc.com.vn
* updates: mirrors.viethosting.com
updates/7/x86_64/primary_db FAILED ===== ] 23 kB/s | 4.3 MB 00:00:11 ETA
http://mirrors.viethosting.com/centos/7.4.1708/updates/x86_64/repodata/4d9aa91b709f8a3de78461b6a84cbab9bc7080249d562a03ed5f65447c625f5e-primary.sqlite.bz2: [Errno 14] c
Trying other mirror.
updates/7/x86_64/primary_db | 4.5 MB 00:00:03
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.6-67.el7.centos.6 will be installed
--> Processing Dependency: httpd-tools = 2.4.6-67.el7.centos.6 for package: httpd-2.4.6-67.el7.centos.6.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.6-67.el7.centos.6.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.6-67.el7.centos.6.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.6-67.el7.centos.6.x86_64
--> Running transaction check
--> Package apr.x86_64 0:1.4.8-3.el7_4.1 will be installed
--> Package apr-util.x86_64 0:1.5.2-6.el7 will be installed
--> Package httpd-tools.x86_64 0:2.4.6-67.el7.centos.6 will be installed
--> Package mailcap.noarch 0:2.1.41-2.el7 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package Arch Version Repository Size
=====
Installing:
httpd x86_64 2.4.6-67.el7.centos.6 updates 2.7 M
Installing for dependencies:
```

Package	Arch	Version	Repository	Size
Installing:				
httpd	x86_64	2.4.6-67.el7.centos.6	updates	2.7 M
Installing for dependencies:				
apr	x86_64	1.4.8-3.el7_4.1	updates	103 k
apr-util	x86_64	1.5.2-6.el7	base	92 k
httpd-tools	x86_64	2.4.6-67.el7.centos.6	updates	88 k
mailcap	noarch	2.1.41-2.el7	base	31 k

#### Transaction Summary

Install 1 Package (+4 Dependent packages)

Total download size: 3.0 M

Installed size: 10 M

Is this ok [y/d/N]: y

Downloading packages:

warning: /var/cache/yum/x86\_64/7/updates/packages/apr-1.4.8-3.el7\_4.1.x86\_64.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eb5: NOKEYETA

Public key for apr-1.4.8-3.el7\_4.1.x86\_64.rpm is not installed

(1/5): apr-1.4.8-3.el7_4.1.x86_64.rpm	103 kB	00:00:06
(2/5): httpd-tools-2.4.6-67.el7.centos.6.x86_64.rpm	88 kB	00:00:05
Public key for apr-util-1.5.2-6.el7.x86_64.rpm is not installed-	] 60 kB/s	251 kB 00:00:47 ETA
(3/5): apr-util-1.5.2-6.el7.x86_64.rpm	92 kB	00:00:06
(4/5): mailcap-2.1.41-2.el7.noarch.rpm	31 kB	00:00:07
(5/5): httpd-2.4.6-67.el7.centos.6.x86_64.rpm	2.7 MB	00:01:42

Total 30 kB/s | 3.0 MB 00:01:43

Retrieving key from file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Importing GPG key 0xF4A80EB5:

Userid : "CentOS-7 Key (CentOS 7 Official Signing Key) <security@centos.org>"

Fingerprint: 6341 ab27 53d7 8a78 a7c2 7bb1 24c6 a8a7 f4a8 0eb5

Package : centos-release-7-3.1611.el7.centos.x86\_64 (@anaconda)

From : /etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-7

Is this ok [y/N]: y

Is this ok [y/N]: y

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : apr-1.4.8-3.el7_4.1.x86_64	1/5
Installing : apr-util-1.5.2-6.el7.x86_64	2/5
Installing : httpd-tools-2.4.6-67.el7.centos.6.x86_64	3/5
Installing : mailcap-2.1.41-2.el7.noarch	4/5
Installing : httpd-2.4.6-67.el7.centos.6.x86_64	5/5
Verifying : mailcap-2.1.41-2.el7.noarch	1/5
Verifying : httpd-2.4.6-67.el7.centos.6.x86_64	2/5
Verifying : apr-util-1.5.2-6.el7.x86_64	3/5
Verifying : apr-1.4.8-3.el7_4.1.x86_64	4/5
Verifying : httpd-tools-2.4.6-67.el7.centos.6.x86_64	5/5

Installed:

httpd.x86\_64 0:2.4.6-67.el7.centos.6

Dependency Installed:

apr.x86\_64 0:1.4.8-3.el7\_4.1 apr-util.x86\_64 0:1.5.2-6.el7 httpd-tools.x86\_64 0:2.4.6-67.el7.centos.6 mailcap.noarch 0:2.1.41-2.el7

Complete!

2. Then, in order to allow access to Apache services from HTTP and HTTPS, we have to open port 80 and 443 where the HTTPD daemon is listening as follows:

Commands:

```
# firewall-cmd --permanent --zone=public --add-service=http
```

```
# firewall-cmd --permanent --zone=public --add-service=https
```

```
# firewall-cmd --reload
```

```
[root@osboxes osboxes]# firewall-cmd --permanent --zone=public --add-service=http  
success
```

```
[root@osboxes osboxes]# firewall-cmd --permanent --zone=public --add-service=https  
success
```

```
[root@osboxes osboxes]# firewall-cmd --reload  
success
```

## Step 2: Install PHP Support for Apache

---

As Magento requires PHP 5.6 or 7.0 and default CentOS repository includes PHP 5.4, which is not compatible with latest Magento 2 version.

3. To install PHP 7, you need to add the EPEL and IUS (Inline with Upstream Stable) repository in order to install PHP 7 using yum:

## ***Install PHP 7***

---

```
# yum install -y http://dl.iuscommunity.org/pub/ius/stable/CentOS/7/x86\_64/ius-release-1.0-14.ius.centos7.noarch.rpm
```

```
[root@osboxes osboxes]# yum install -y http://dl.iuscommunity.org/pub/ius/stable/CentOS/7/x86_64/ius-release-1.0-14.ius.centos7.noarch.rpm
Loaded plugins: fastestmirror, langpacks
ius-release-1.0-14.ius.centos7.noarch.rpm | 8.1 kB 00:00:00
Examining /var/tmp/yum-root-DF64vm/ius-release-1.0-14.ius.centos7.noarch.rpm: ius-release-1.0-15.ius.centos7.noarch
Marking /var/tmp/yum-root-DF64vm/ius-release-1.0-14.ius.centos7.noarch.rpm to be installed
Resolving Dependencies
--> Running transaction check
--> Package ius-release.noarch 0:1.0-15.ius.centos7 will be installed
--> Processing Dependency: epel-release = 7 for package: ius-release-1.0-15.ius.centos7.noarch
Loading mirror speeds from cached hostfile
* base: centos.myfahim.com
* extras: centos-hcm.viettelidc.com.vn
* updates: mirrors.viethosting.com
--> Running transaction check
--> Package epel-release.noarch 0:7-9 will be installed
--> Finished Dependency Resolution
```

Dependencies Resolved

Package	Arch	Version	Repository	Size
Installing:				
ius-release	noarch	1.0-15.ius.centos7	/ius-release-1.0-14.ius.centos7.noarch	8.5 k
Installing for dependencies:				
epel-release	noarch	7-9	extras	14 k

Transaction Summary

Install 1 Package (+1 Dependent package)

Total size: 23 k  
Total download size: 14 k

```
Total size: 23 k
Total download size: 14 k
Installed size: 33 k
Downloading packages:
epel-release-7-9.noarch.rpm | 14 kB 00:00:09
```

```
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : epel-release-7-9.noarch 1/2
  Installing : ius-release-1.0-15.ius.centos7.noarch 2/2
  Verifying : ius-release-1.0-15.ius.centos7.noarch 1/2
  Verifying : epel-release-7-9.noarch 2/2
```

Installed:  
ius-release.noarch 0:1.0-15.ius.centos7

Dependency Installed:  
epel-release.noarch 0:7-9

Complete!

# yum -y update

```
# yum -y install php70u php70u-pdo php70u-mysqlnd php70u-opcache php70u-xml php70u-
mcrypt php70u-gd php70u-devel php70u-mysql php70u-intl php70u-mbstring php70u-bcmath
php70u-json php70u-iconv
```

```
[root@osboxes ~]# yum -y install php70u php70u-pdo php70u-mysqlnd php70u-opcache php70u-xml php70u-mcrypt php70u-gd php70u-devel php70u-mysql php70u-intl php70u-mbstring
Loaded plugins: fastestmirror, langpacks
base | 3.6 kB 00:00:00
epel/x86_64/metalink | 7.1 kB 00:00:00
extras | 3.4 kB 00:00:00
ius | 2.3 kB 00:00:00
updates | 3.4 kB 00:00:00
Loading mirror speeds from cached hostfile
* base: centos.mirror.com
* epel: mirror.nes.co.id
* extras: centos-hcm.viettelidc.com.vn
* ius: mirror.team-cymru.org
* updates: mirrors.viethosting.com
No package php70u-mysql available.
Resolving Dependencies
--> Running transaction check
--> Package mod_php70u.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Processing Dependency: libcrypto.so.10(OPENSSL_1.0.2)(64bit) for package: mod_php70u-7.0.26-1.ius.centos7.x86_64
--> Package php70u-bcmath.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-common.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-devel.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Processing Dependency: php-cli(x86-64) = 7.0.26-1.ius.centos7 for package: php70u-devel-7.0.26-1.ius.centos7.x86_64
--> Processing Dependency: autoconf for package: php70u-devel-7.0.26-1.ius.centos7.x86_64
--> Processing Dependency: automake for package: php70u-devel-7.0.26-1.ius.centos7.x86_64
--> Package php70u-gd.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-intl.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-json.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-mbstring.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-mcrypt.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Processing Dependency: libmcrypt.so.4()(64bit) for package: php70u-mcrypt-7.0.26-1.ius.centos7.x86_64
--> Package php70u-mysqlnd.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-opcache.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-pdo.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Package php70u-xml.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Running transaction check
--> Package autoconf.noarch 0:2.69-11.el7 will be installed
--> Processing Dependency: m4 >= 1.4.14 for package: autoconf-2.69-11.el7.noarch

--> Running transaction check
--> Package autoconf.noarch 0:2.69-11.el7 will be installed
--> Processing Dependency: m4 >= 1.4.14 for package: autoconf-2.69-11.el7.noarch
--> Processing Dependency: perl(Data:Dumper) for package: autoconf-2.69-11.el7.noarch
--> Package automake.noarch 0:1.13.4-3.el7 will be installed
--> Processing Dependency: perl(Thread:Queue) for package: automake-1.13.4-3.el7.noarch
--> Processing Dependency: perl(TAP:Parser) for package: automake-1.13.4-3.el7.noarch
--> Package libmcrypt.x86_64 0:2.5.8-13.el7 will be installed
--> Package openssl-libs.x86_64 1:1.0.1e-60.el7 will be updated
--> Processing Dependency: openssl-libs(x86-64) = 1:1.0.1e-60.el7 for package: 1:openssl-1.0.1e-60.el7.x86_64
--> Package openssl-libs.x86_64 1:1.0.2k-8.el7 will be an update
--> Package php70u-cli.x86_64 0:7.0.26-1.ius.centos7 will be installed
--> Running transaction check
--> Package m4.x86_64 0:1.4.16-10.el7 will be installed
--> Package openssl.x86_64 1:1.0.1e-60.el7 will be updated
--> Package openssl.x86_64 1:1.0.2k-8.el7 will be an update
--> Package perl-Data-Dumper.x86_64 0:2.145-3.el7 will be installed
--> Package perl-Test-Harness.noarch 0:3.28-3.el7 will be installed
--> Package perl-Thread-Queue.noarch 0:3.02-2.el7 will be installed
--> Finished Dependency Resolution

Dependencies Resolved
```

```

=====
Package                               Arch                               Version                           Repository                         Size
=====
Installing:
mod_php70u                           x86_64                           7.0.26-1.ius.centos7             ius                                2.9 M
php70u-bcmath                        x86_64                           7.0.26-1.ius.centos7             ius                                74 k
php70u-common                        x86_64                           7.0.26-1.ius.centos7             ius                                1.1 M
php70u-devel                         x86_64                           7.0.26-1.ius.centos7             ius                                1.1 M
php70u-gd                           x86_64                           7.0.26-1.ius.centos7             ius                                174 k
php70u-intl                         x86_64                           7.0.26-1.ius.centos7             ius                                216 k
php70u-json                         x86_64                           7.0.26-1.ius.centos7             ius                                66 k
php70u-mbstring                     x86_64                           7.0.26-1.ius.centos7             ius                                579 k
php70u-mcrypt                       x86_64                           7.0.26-1.ius.centos7             ius                                63 k
php70u-mysqlnd                      x86_64                           7.0.26-1.ius.centos7             ius                                242 k
php70u-openssl                      x86_64                           7.0.26-1.ius.centos7             ius                                166 k
php70u-pdo                          x86_64                           7.0.26-1.ius.centos7             ius                                128 k
php70u-xml                          x86_64                           7.0.26-1.ius.centos7             ius                                212 k
Installing for dependencies:
autoconf                            noarch                            2.69-11.el7                      base                                701 k
automake                            noarch                            1.13.4-3.el7                     base                                679 k
libmcrypt                          x86_64                           2.5.8-13.el7                     epel                                99 k
m4                                  x86_64                           1.4.16-10.el7                    base                                256 k
perl-Data-Dumper                   x86_64                           2.145-3.el7                       base                                47 k
perl-Test-Harness                  noarch                            3.28-3.el7                        base                                302 k
perl-Thread-Queue                  noarch                            3.02-2.el7                        base                                17 k
php70u-cli                         x86_64                           7.0.26-1.ius.centos7             ius                                4.3 M
Updating for dependencies:
openssl                             x86_64                           1:1.0.2k-8.el7                   base                                492 k
openssl-libs                       x86_64                           1:1.0.2k-8.el7                   base                                1.2 M

Transaction Summary
=====
Install 13 Packages (+8 Dependent packages)
Upgrade      ( 2 Dependent packages)

Total download size: 15 M

Verifying : php70u-devel-7.0.26-1.ius.centos7.x86_64 7/25
Verifying : m4-1.4.16-10.el7.x86_64 8/25
Verifying : libmcrypt-2.5.8-13.el7.x86_64 9/25
Verifying : 1:openssl-1.0.2k-8.el7.x86_64 10/25
Verifying : perl-Test-Harness-3.28-3.el7.noarch 11/25
Verifying : perl-Thread-Queue-3.02-2.el7.noarch 12/25
Verifying : perl-Data-Dumper-2.145-3.el7.x86_64 13/25
Verifying : 1:openssl-libs-1.0.2k-8.el7.x86_64 14/25
Verifying : php70u-json-7.0.26-1.ius.centos7.x86_64 15/25
Verifying : php70u-mcrypt-7.0.26-1.ius.centos7.x86_64 16/25
Verifying : php70u-common-7.0.26-1.ius.centos7.x86_64 17/25
Verifying : autoconf-2.69-11.el7.noarch 18/25
Verifying : php70u-gd-7.0.26-1.ius.centos7.x86_64 19/25
Verifying : php70u-mysqlnd-7.0.26-1.ius.centos7.x86_64 20/25
Verifying : php70u-cli-7.0.26-1.ius.centos7.x86_64 21/25
Verifying : php70u-pdo-7.0.26-1.ius.centos7.x86_64 22/25
Verifying : php70u-mbstring-7.0.26-1.ius.centos7.x86_64 23/25
Verifying : 1:openssl-libs-1.0.1e-60.el7.x86_64 24/25
Verifying : 1:openssl-1.0.1e-60.el7.x86_64 25/25

Installed:
mod_php70u.x86_64 0:7.0.26-1.ius.centos7 php70u-bcmath.x86_64 0:7.0.26-1.ius.centos7 php70u-common.x86_64 0:7.0.26-1.ius.centos7
php70u-devel.x86_64 0:7.0.26-1.ius.centos7 php70u-gd.x86_64 0:7.0.26-1.ius.centos7 php70u-intl.x86_64 0:7.0.26-1.ius.centos7
php70u-json.x86_64 0:7.0.26-1.ius.centos7 php70u-mbstring.x86_64 0:7.0.26-1.ius.centos7 php70u-mcrypt.x86_64 0:7.0.26-1.ius.centos7
php70u-mysqlnd.x86_64 0:7.0.26-1.ius.centos7 php70u-openssl.x86_64 0:7.0.26-1.ius.centos7 php70u-pdo.x86_64 0:7.0.26-1.ius.centos7
php70u-xml.x86_64 0:7.0.26-1.ius.centos7

Dependency Installed:
autoconf.noarch 0:2.69-11.el7 automake.noarch 0:1.13.4-3.el7 libmcrypt.x86_64 0:2.5.8-13.el7
m4.x86_64 0:1.4.16-10.el7 perl-Data-Dumper.x86_64 0:2.145-3.el7 perl-Test-Harness.noarch 0:3.28-3.el7
perl-Thread-Queue.noarch 0:3.02-2.el7 php70u-cli.x86_64 0:7.0.26-1.ius.centos7

Dependency Updated:
openssl.x86_64 1:1.0.2k-8.el7 openssl-libs.x86_64 1:1.0.2k-8.el7

Complete!

```

4. Next, open and modify the following settings in your /etc/php.ini file:



//Input text in php.ini file

```
max_input_time = 30
```

```
memory_limit= 512M
```

```
error_reporting = E_COMPILE_ERROR|E_RECOVERABLE_ERROR|E_ERROR|E_CORE_ERROR
```

```
error_log = /var/log/php/error.log
```

```
date.timezone = Asia/Karachi
```

5. Next, to retrieve a complete info concerning the PHP installation and all its current configurations from a web browser, let's create ainfo.php file in the Apache DocumentRoot (/var/www/html) using the following command.

```
# echo "<?phpphpinfo(); ?>" > /var/www/html/info.php
```

6. Once all the required configuration completes, its time to start the Apache service and enable it to start automatically from the next system boot as well like so:

```
# systemctl start httpd
```

```
# systemctl enable httpd
```

```
[root@osboxes etc]# vi php.ini
[root@osboxes etc]# echo "<?php phpinfo(); ?>" > /var/www/html/info.php
[root@osboxes etc]# systemctl start httpd
[root@osboxes etc]# systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
```

7. Next, we can verify that Apache and PHP is working fine; open a remote browser and type your server IP Address using HTTP protocol in the URL and the default Apache2 and PHP info page should appear.

<http://server domain name or IP/info.php>


phpinfo()

+

192.168.56.102/info.php

Search

PHP Version 7.0.15



System	Linux magento.tecmint.com 3.10.0-123.el7.x86_64 #1 SMP Mon Jun 30 12:09:22 UTC 2014 x86_64
Build Date	Jan 19 2017 21:35:55
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc
Loaded Configuration File	/etc/php.ini
Scan this dir for additional .ini files	/etc/php.d
Additional .ini files parsed	/etc/php.d/bcmath.ini, /etc/php.d/bz2.ini, /etc/php.d/calendar.ini, /etc/php.d/ctype.ini, /etc/php.d/curl.ini, /etc/php.d/dom.ini, /etc/php.d/exif.ini, /etc/php.d/fileinfo.ini, /etc/php.d/ftp.ini, /etc/php.d/gd.ini, /etc/php.d/gettext.ini, /etc/php.d/gmp.ini, /etc/php.d/iconv.ini, /etc/php.d/json.ini, /etc/php.d/mbstring.ini, /etc/php.d/mysqli.ini, /etc/php.d/openssl.ini, /etc/php.d/pdo.ini, /etc/php.d/pdo_mysql.ini, /etc/php.d/pdo_sqlite.ini, /etc/php.d/phar.ini, /etc/php.d/posix.ini, /etc/php.d/recode.ini, /etc/php.d/shmop.ini, /etc/php.d/simplexml.ini, /etc/php.d/sockets.ini, /etc/php.d/sqlite3.ini, /etc/php.d/sysvmsg.ini, /etc/php.d/sysvsem.ini, /etc/php.d/sysvshm.ini, /etc/php.d/tidy.ini, /etc/php.d/tokenizer.ini, /etc/php.d/xml.ini, /etc/php.d/xml_wddx.ini, /etc/php.d/xmlreader.ini, /etc/php.d/xmlwriter.ini, /etc/php.d/xsl.ini, /etc/php.d/zip.ini
PHP API	20151012
PHP Extension	20151012
Zend Extension	320151012
Zend Extension Build	API320151012.NTS
PHP Extension Build	API20151012.NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	disabled
Zend Memory Manager	enabled
Zend Multibyte Support	provided by mbstring
IPv6 Support	enabled
DTrace Support	enabled
Registered PHP Streams	https, ftps, compress.zlib, php, file, glob, data, http, ftp, compress.bzip2, phar, zip
Registered Stream Socket Transports	tcp, udp, unix, udg, ssl, sslv3, sslv2, tls, tlsv1.0, tlsv1.1, tlsv1.2

### Step 3: Install and Configure MariaDB Database

8. We must note that Red Hat Enterprise Linux/CentOS 7.0 moved from supporting MySQL to MariaDB as the default database management system.

To install MariaDB database, we need to add the following official MariaDB repository to file

# Vi/etc/yum.repos.d/MariaDB.repo as shown.

```
//Copy the entire content to the created file
```

[mariadb]

```
name = MariaDB
```

baseurl = <http://yum.mariadb.org/10.1/centos7-amd64>

gpgkey=<https://yum.mariadb.org/RPM-GPG-KEY-MariaDB>

gpgcheck=1

9. Once the repo file is created, we are now able to install MariaDB as follows:

# yum install mariadb-server mariadb-client

```
[root@osboxes etc]# yum install MariaDB-server MariaDB-client
Loaded plugins: fastestmirror, langpacks
base | 3.6 kB    00:00
Loading mirror speeds from cached hostfile
 * base: centos.mirror.com
 * epel: repo.fedoralinux.org
 * extras: centos-hcm.viettelidc.com.vn
 * ius: ftp.astral.ro
 * updates: mirrors.viethosting.com
Resolving Dependencies
--> Running transaction check
---> Package MariaDB-client.x86_64 0:10.1.29-1.el7.centos will be installed
--> Processing Dependency: MariaDB-common for package: MariaDB-client-10.1.29-1.el7.centos.x86_64
---> Package MariaDB-server.x86_64 0:10.1.29-1.el7.centos will be installed
--> Processing Dependency: perl(DBI) for package: MariaDB-server-10.1.29-1.el7.centos.x86_64
--> Processing Dependency: galera for package: MariaDB-server-10.1.29-1.el7.centos.x86_64
--> Processing Dependency: libjemalloc.so.1()(64bit) for package: MariaDB-server-10.1.29-1.el7.centos.x86_64
--> Running transaction check
---> Package MariaDB-common.x86_64 0:10.1.29-1.el7.centos will be installed
---> Package galera.x86_64 0:25.3.22-1.rhel7.el7.centos will be installed
--> Processing Dependency: libboost_program_options.so.1.53.0()(64bit) for package: galera-25.3.22-1.rhel7.el7.centos.x86_64
---> Package jemalloc.x86_64 0:3.6.0-1.el7 will be installed
---> Package perl-DBI.x86_64 0:1.627-4.el7 will be installed
--> Processing Dependency: perl(RPC::PIServer) >= 0.2001 for package: perl-DBI-1.627-4.el7.x86_64
--> Processing Dependency: perl(RPC::PIClient) >= 0.2000 for package: perl-DBI-1.627-4.el7.x86_64
--> Running transaction check
---> Package boost-program-options.x86_64 0:1.53.0-27.el7 will be installed
---> Package perl-PIRPC.noarch 0:0.2020-14.el7 will be installed
--> Processing Dependency: perl(Net::Daemon) >= 0.13 for package: perl-PIRPC-0.2020-14.el7.noarch
--> Processing Dependency: perl(Net::Daemon::Test) for package: perl-PIRPC-0.2020-14.el7.noarch
--> Processing Dependency: perl(Net::Daemon::Log) for package: perl-PIRPC-0.2020-14.el7.noarch
--> Processing Dependency: perl(Compress::Zlib) for package: perl-PIRPC-0.2020-14.el7.noarch
--> Running transaction check
---> Package perl-IO-Compress.noarch 0:2.061-2.el7 will be installed
--> Processing Dependency: perl(Compress::Raw::Zlib) >= 2.061 for package: perl-IO-Compress-2.061-2.el7.noarch
--> Processing Dependency: perl(Compress::Raw::Bzip2) >= 2.061 for package: perl-IO-Compress-2.061-2.el7.noarch
|---> Package perl-Net-Daemon.noarch 0:0.48-5.el7 will be installed
```

# Dependencies Resolved

Package	Arch	Version	Repository	Size
Installing:				
MariaDB-client	x86_64	10.1.29-1.el7.centos	mariadb	39 M
MariaDB-server	x86_64	10.1.29-1.el7.centos	mariadb	104 M
MariaDB-shared	x86_64	10.1.29-1.el7.centos	mariadb	1.3 M
replacing mariadb-libs.x86_64 1:5.5.52-1.el7				
Installing for dependencies:				
MariaDB-common	x86_64	10.1.29-1.el7.centos	mariadb	123 k
boost-program-options	x86_64	1.53.0-27.el7	base	156 k
galera	x86_64	25.3.22-1.rhel7.el7.centos	mariadb	8.0 M
jemalloc	x86_64	3.6.0-1.el7	epel	105 k
perl-Compress-Raw-Bzip2	x86_64	2.061-3.el7	base	32 k
perl-Compress-Raw-Zlib	x86_64	1:2.061-4.el7	base	57 k
perl-DBI	x86_64	1.627-4.el7	base	802 k
perl-IO-Compress	noarch	2.061-2.el7	base	260 k
perl-Net-Daemon	noarch	0.48-5.el7	base	51 k
perl-P1RPC	noarch	0.2020-14.el7	base	36 k

## Transaction Summary

Install 3 Packages (+10 Dependent packages)

Total download size: 155 M

Is this ok [y/d/N]: y

Downloading packages:

Warning: /var/cache/yum/x86\_64/7/mariadb/packages/MariaDB-10.1.29-centos7-x86\_64-common.rpm: Header V4 DSA/SHA1 Signature, key ID 1bb943db: NOKEY

Public key for MariaDB-10.1.29-centos7-x86\_64-common.rpm is not installed

(1/13): MariaDB-10.1.29-centos7-x86\_64-common.rpm | 123 kB 00:03

Public key for MariaDB-10.1.29-centos7-x86\_64-common.rpm is not installed

(1/13): MariaDB-10.1.29-centos7-x86\_64-common.rpm | 123 kB 00:03

(3/13): MariaDB-10.1.29-centos7-x86\_64-client.rpm | 39 MB 05:55

(2/13): MariaDB-10.1.29-centos7-x86\_64-shared.rpm | 1.3 MB 00:06

(4/13): boost-program-options-1.53.0-27.el7.x86\_64.rpm | 156 kB 00:04

(5/13): perl-Compress-Raw-Zlib-2.061-4.el7.x86\_64.rpm | 57 kB 00:00

(6/13): perl-DBI-1.627-4.el7.x86\_64.rpm | 802 kB 00:04

(7/13): perl-Compress-Raw-Bzip2-2.061-3.el7.x86\_64.rpm | 32 kB 00:05

(8/13): perl-IO-Compress-2.061-2.el7.noarch.rpm | 260 kB 00:00

(9/13): perl-Net-Daemon-0.48-5.el7.noarch.rpm | 51 kB 00:02

(10/13): perl-P1RPC-0.2020-14.el7.noarch.rpm | 36 kB 00:01

(11/13): jemalloc-3.6.0-1.el7.x86\_64.rpm | 105 kB 00:22

(12/13): galera-25.3.22-1.rhel7.el7.centos.x86\_64.rpm | 8.0 MB 00:57

(13/13): MariaDB-10.1.29-centos7-x86\_64-server.rpm | 104 MB 22:42

Total 116 kB/s | 155 MB 22:46

Retrieving key from https://yum.mariadb.org/RPM-GPG-KEY-MariaDB

Importing GPG key 0x1BB943DB:

Userid : "MariaDB Package Signing Key <package-signing-key@mariadb.org>"

Fingerprint: 1993 69e5 404b d5fc 7d2f e43b cbc0 082a 1bb9 43db

From : https://yum.mariadb.org/RPM-GPG-KEY-MariaDB

Is this ok [y/N]:

```
Erasing      : 1:mariadb-libs-5.5.52-1.el7.x86_64 14/14
Verifying    : galera-25.3.22-1.rhel7.el7.centos.x86_64 1/14
Verifying    : perl-Net-Daemon-0.48-5.el7.noarch 2/14
Verifying    : jemalloc-3.6.0-1.el7.x86_64 3/14
Verifying    : MariaDB-common-10.1.29-1.el7.centos.x86_64 4/14
Verifying    : perl-IO-Compress-2.061-2.el7.noarch 5/14
Verifying    : MariaDB-client-10.1.29-1.el7.centos.x86_64 6/14
Verifying    : 1:perl-Compress-Raw-Zlib-2.061-4.el7.x86_64 7/14
Verifying    : MariaDB-shared-10.1.29-1.el7.centos.x86_64 8/14
Verifying    : boost-program-options-1.53.0-27.el7.x86_64 9/14
Verifying    : perl-DBI-1.627-4.el7.x86_64 10/14
Verifying    : perl-Compress-Raw-Bzip2-2.061-3.el7.x86_64 11/14
Verifying    : MariaDB-server-10.1.29-1.el7.centos.x86_64 12/14
Verifying    : perl-PlRPC-0.2020-14.el7.noarch 13/14
Verifying    : 1:mariadb-libs-5.5.52-1.el7.x86_64 14/14
```

#### Installed:

```
MariaDB-client.x86_64 0:10.1.29-1.el7.centos
MariaDB-server.x86_64 0:10.1.29-1.el7.centos
MariaDB-shared.x86_64 0:10.1.29-1.el7.centos
```

#### Dependency Installed:

```
MariaDB-common.x86_64 0:10.1.29-1.el7.centos
boost-program-options.x86_64 0:1.53.0-27.el7
galera.x86_64 0:25.3.22-1.rhel7.el7.centos
jemalloc.x86_64 0:3.6.0-1.el7
perl-Compress-Raw-Bzip2.x86_64 0:2.061-3.el7
perl-Compress-Raw-Zlib.x86_64 1:2.061-4.el7
perl-DBI.x86_64 0:1.627-4.el7
perl-IO-Compress.noarch 0:2.061-2.el7
perl-Net-Daemon.noarch 0:0.48-5.el7
perl-PlRPC.noarch 0:0.2020-14.el7
```

#### Replaced:

```
mariadb-libs.x86_64 1:5.5.52-1.el7
```

Complete!

10. After the installation of MariaDB packages completes, start the database daemon for the mean time and enable it to start automatically at the next boot.

```
# systemctl start mariadb
```

```
# systemctl enable mariadb
```

11. Then run the `mysql_secure_installation` script to secure the database (set root password, disable remote root login, remove test database and remove anonymous users) as follows:

```
# mysql_secure_installation
```

OK, successfully used password, moving on...

Setting the root password ensures that nobody can log into the MariaDB root user without the proper authorisation.

```
Set root password? [Y/n] y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
... Success!
```

By default, a MariaDB installation has an anonymous user, allowing anyone to log into MariaDB without having to have a user account created for them. This is intended only for testing, and to make the installation go a bit smoother. You should remove them before moving into a production environment.

```
Remove anonymous users? [Y/n] y
... Success!
```

Normally, root should only be allowed to connect from 'localhost'. This ensures that someone cannot guess at the root password from the network.

```
Disallow root login remotely? [Y/n] n
... skipping.
```

By default, MariaDB comes with a database named 'test' that anyone can access. This is also intended only for testing, and should be removed before moving into a production environment.

```
Remove test database and access to it? [Y/n] y
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!
Remove test database and access to it? [Y/n] y
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!
```

Reloading the privilege tables will ensure that all changes made so far will take effect immediately.

```
Reload privilege tables now? [Y/n] y
... Success!
```

Cleaning up...

All done! If you've completed all of the above steps, your MariaDB installation should now be secure.

Thanks for using MariaDB!

Next create a magento database and user as shown.

```
# mysql -u root -p
```

```
## Creating New User for Magento Database ##
```

```
mysql> CREATE USER magento@localhost IDENTIFIED BY "your_password_here";
```

```
## Create New Database ##
```

```
mysql> create database magento;
```

```
## Grant Privileges to Database ##
```

```
mysql> GRANT ALL ON magento.* TO magento@localhost;
```

```
## FLUSH privileges ##
```

```
mysql> FLUSH PRIVILEGES;
```

```
## Exit ##
```

```
mysql> exit
```

```
[root@osboxes etc]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 12
Server version: 10.1.29-MariaDB MariaDB Server
```

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
MariaDB [(none)]> CREATE USER Umer@localhost IDENTIFIED BY "umer247"    -> ;
Query OK, 0 rows affected (0.00 sec)
```

```
MariaDB [(none)]> create database magento;
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [(none)]> GRANT ALL ON magento.* TO Umer@localhost;
Query OK, 0 rows affected (0.00 sec)
```

```
MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)
```

```
MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)
```

```
MariaDB [(none)]> exit
```

```
Bye
[root@osboxes etc]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 13
Server version: 10.1.29-MariaDB MariaDB Server
```

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
MariaDB [(none)]> databases
```

```
-> ;
```

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'databases'

```
MariaDB [(none)]> show databases
```

```
-> ;
```

```
+-----+
| Database |
+-----+
| information_schema |
| magento |
| mysql |
| performance_schema |
+-----+
4 rows in set (0.00 sec)
```

```
MariaDB [(none)]> exit
Bye
```



## Step 4: Install Magento Community Edition

12. Now, go the Magento official website, and create a user account in case you a new customer.(or simply login if you already have an account) and download the latest version of Magento Community Edition.

<http://www.magentocommerce.com/download>

13. After you download Magento tar file, extract the contents into the Apache Document Root (/var/www/html) as follows:

```
# tar -zxvf Magento-CE-2.1.5-2017-02-20-05-36-16.tar.gz -C /var/www/html/
```

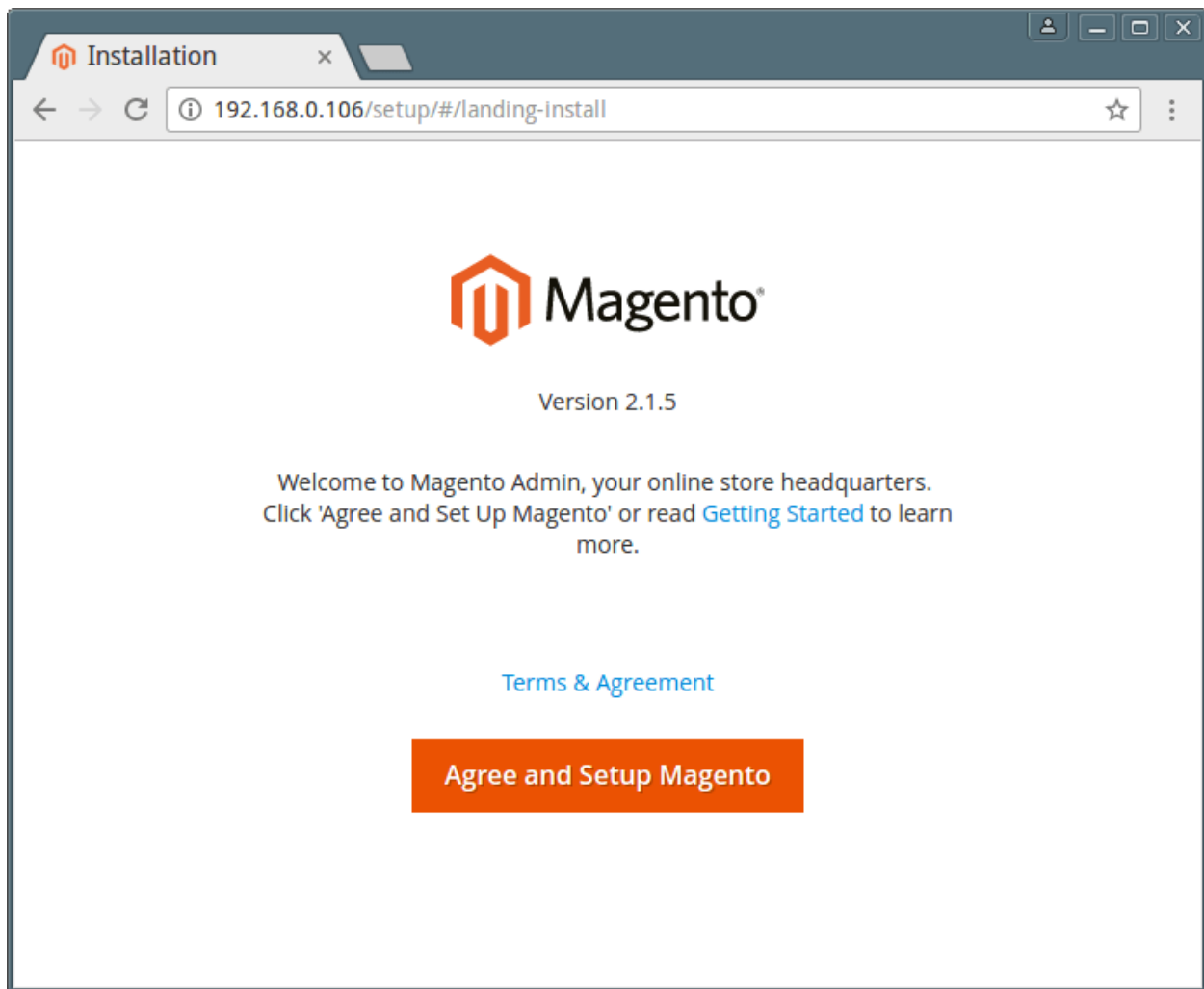
14. Now you need to set Apache ownership to the files and folders.

```
# chown -R apache:apache /var/www/html/
```

15. Now open your browser and navigate to the following url, you will be presented with the Magento installation wizard.

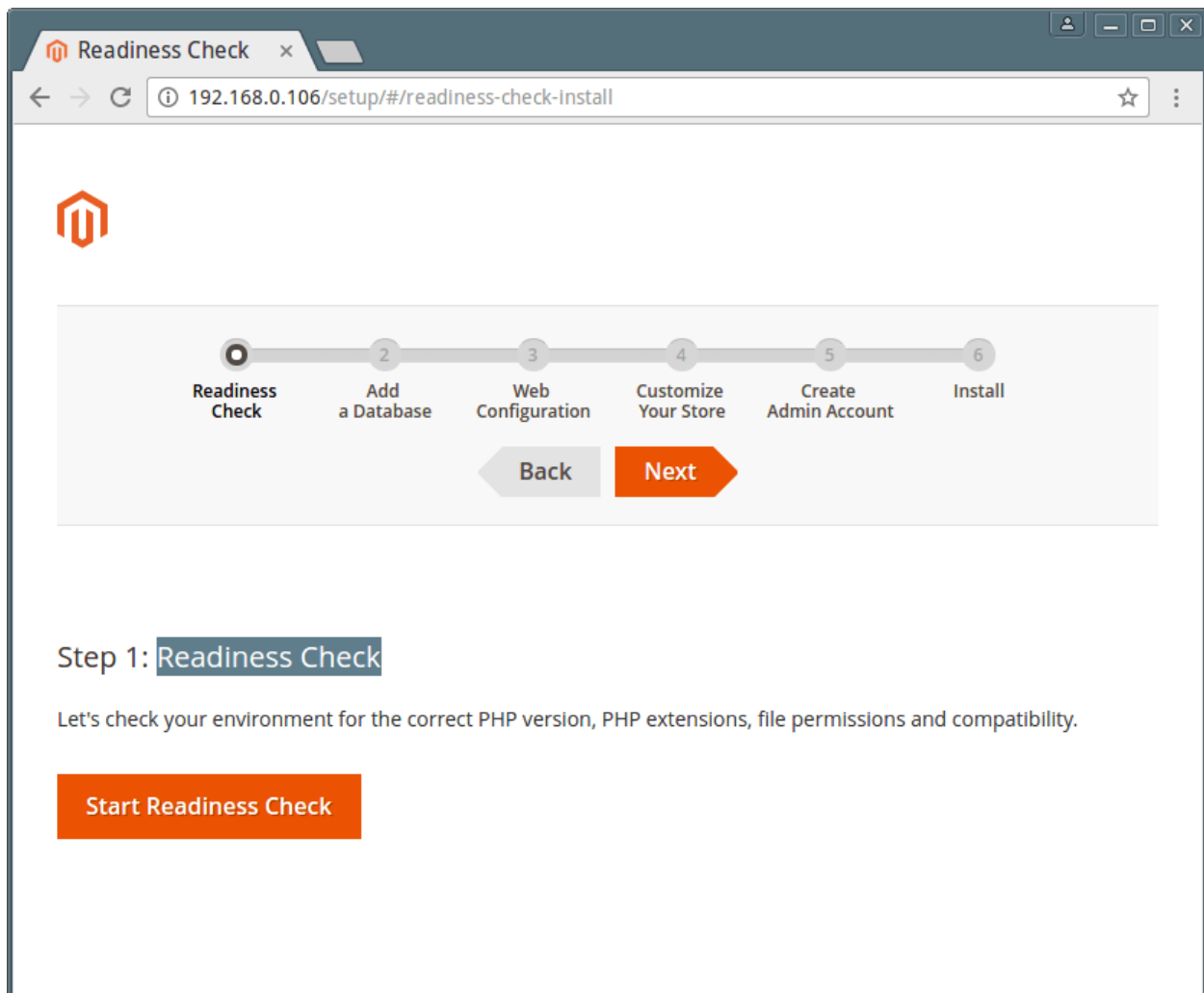
[http://server\\_domain\\_name\\_or\\_IP/](http://server_domain_name_or_IP/)

Magento Installation Wizard

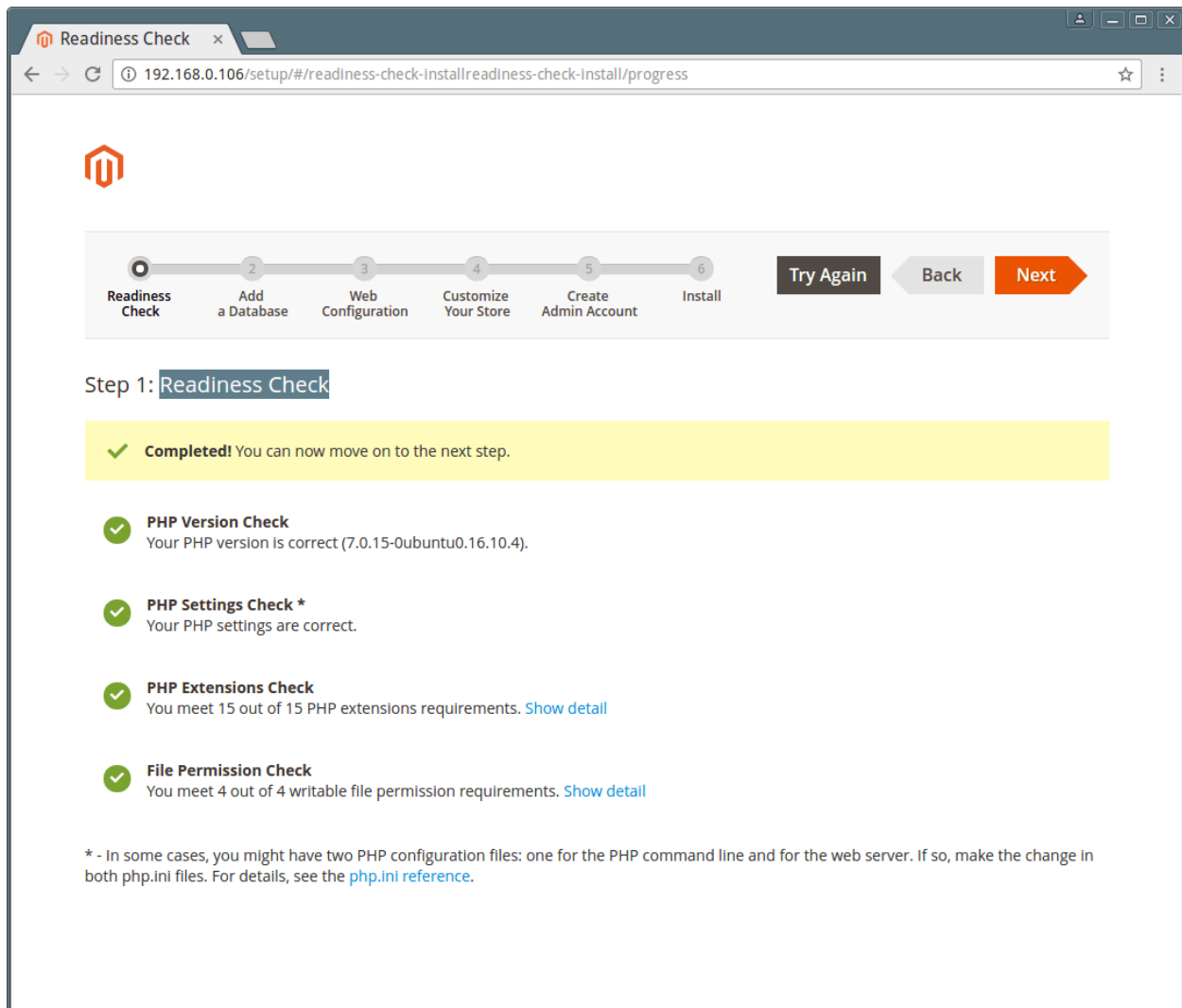


16. Next, the wizard will carry a Readiness Check for the correct PHP version, file permissions and compatibility.

Magento Readiness Check



Magento Readiness Check Summary




17. Enter magento database settings.

Magento Database Settings

Add a Database

192.168.0.106/setup/#/add-database



1

Readiness Check

2

Add a Database

3

Web Configuration

4

Customize Your Store

5

Create Admin Account

6

Install

Back

Next

Database Server Host \*

localhost

Database Server Username \*

magento

Sign-in credentials for your store's database on the database server (does not need to be admin-level credentials).

Database Server Password

.....

Database Name \*

magento

Table prefix

(optional)

18. Magento Web site configuration.

Magento Web Configuration

The screenshot shows the Magento Installer interface in a web browser. The browser's address bar displays 'magento-tecmint.com/setup/#/web-configuration'. The page title is 'Magento Installer'. A progress bar at the top indicates the installation steps: 1. Readiness Check, 2. Add a Database, 3. Web Configuration (current step), 4. Customize Your Store, 5. Create Admin Account, and 6. Install. Below the progress bar are 'Back' and 'Next' buttons. The main content area is titled 'Step 3: Web Configuration'. It contains two input fields: 'Your Store Address' with the value 'http://magento-tecmint.com/' and 'Magento Admin Address' with the value 'http://magento-tecmint.com/tecmint'. A tooltip next to the admin address field states: 'A unique URL helps keep your store and customers safer. Use only letters, numbers, and underscore characters.' At the bottom, there is a section for 'Advanced Options' with a dropdown arrow.

Web Configuration x Web Configuration x

magento-tecmint.com/setup/#/web-configuration

# Magento Installer

1 Readiness Check 2 Add a Database 3 Web Configuration 4 Customize Your Store 5 Create Admin Account 6 Install

Back Next

## Step 3: Web Configuration

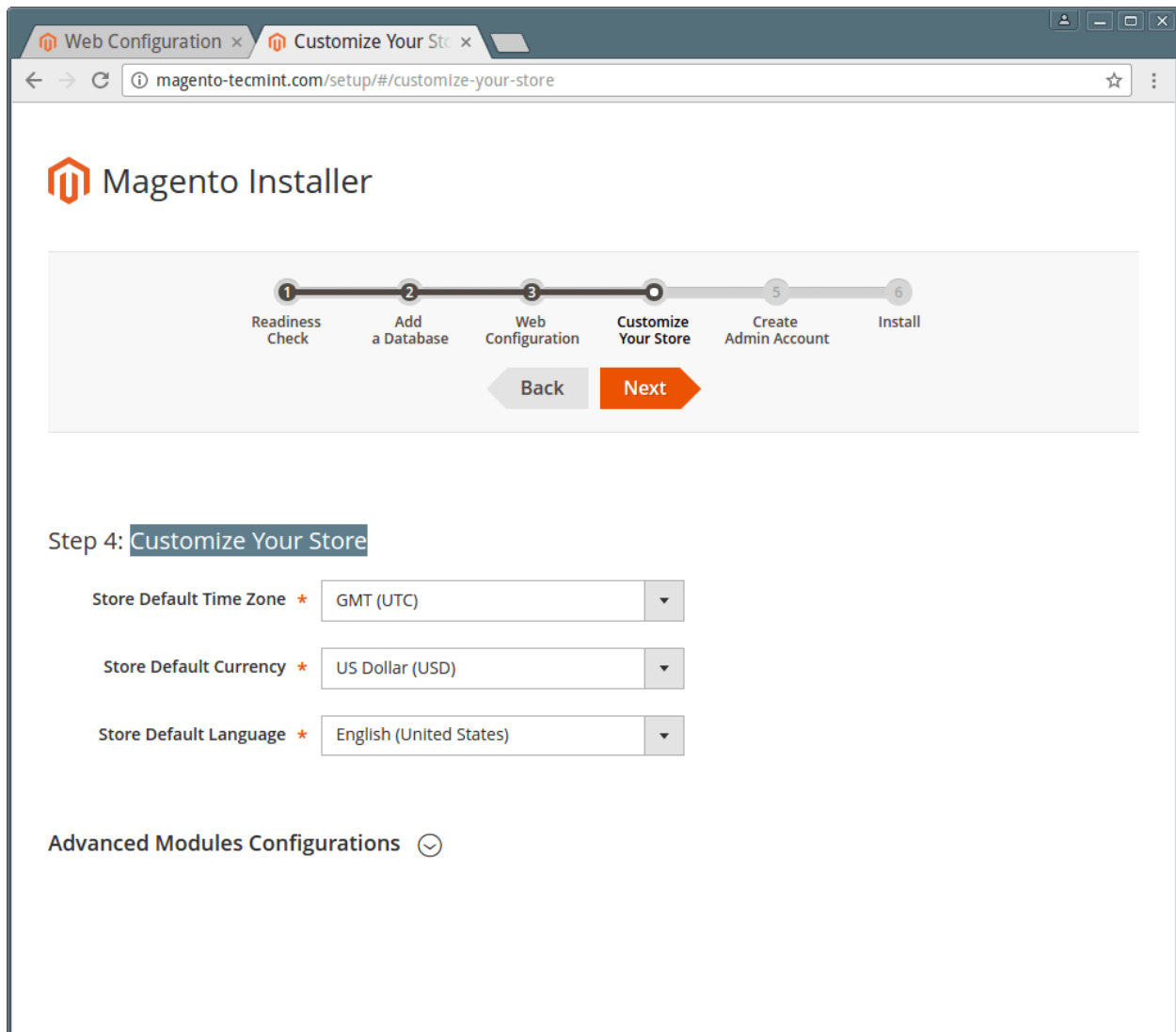
Your Store Address

Magento Admin Address \*  A unique URL helps keep your store and customers safer. Use only letters, numbers, and underscore characters.

Advanced Options

19. Customize your Magento store by setting timezone, currency and language.

Customize Magento Store



20. Create a new Admin account to manage your Magento store.

Create Magento Admin Account

The screenshot shows a web browser window with two tabs: 'Web Configuration' and 'Create Admin Account'. The address bar shows the URL 'magento-tecmint.com/setup/#/create-admin-account'. The page title is 'Magento Installer'. Below the title is a progress bar with six steps: 1. Readiness Check, 2. Add a Database, 3. Web Configuration, 4. Customize Your Store, 5. Create Admin Account (current step), and 6. Install. Below the progress bar are 'Back' and 'Next' buttons. The main content area is titled 'Step 5: Create Admin Account' and contains the instruction 'Create a new Admin account to manage your store.' followed by four form fields: 'New Username' (value: tecmint), 'New Email' (value: admin@tecmint.com), 'New Password' (masked with dots), and 'Confirm Password' (masked with dots). A tooltip message 'Please re-enter your password.' is visible next to the 'Confirm Password' field.

Web Configuration x Create Admin Account x

magento-tecmint.com/setup/#/create-admin-account

# Magento Installer

1 Readiness Check 2 Add a Database 3 Web Configuration 4 Customize Your Store 5 Create Admin Account 6 Install

Back Next

## Step 5: Create Admin Account

Create a new Admin account to manage your store.

New Username \* tecmint

New Email \* admin@tecmint.com

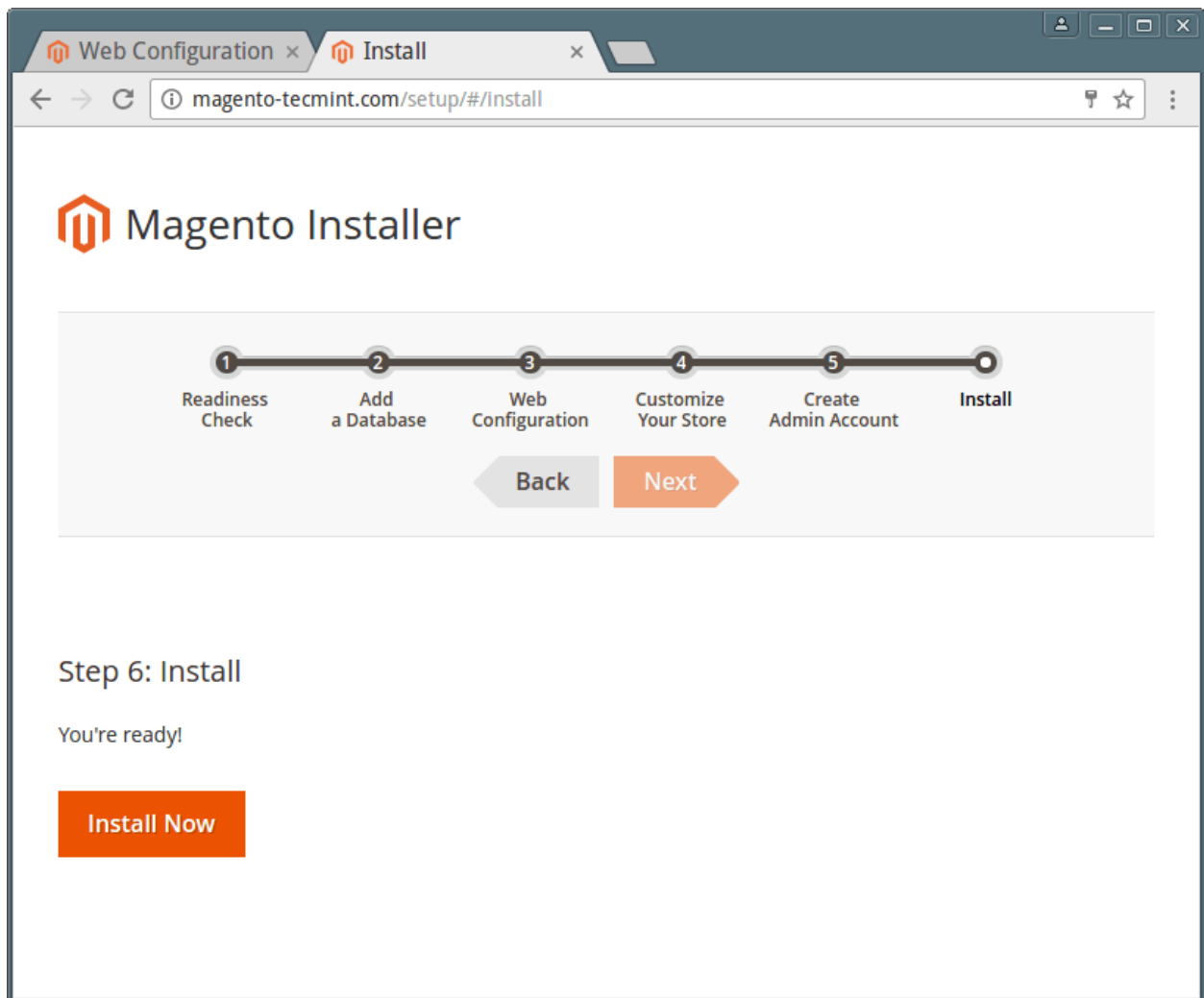
New Password \* .....

Confirm Password \* ..... Please re-enter your password.

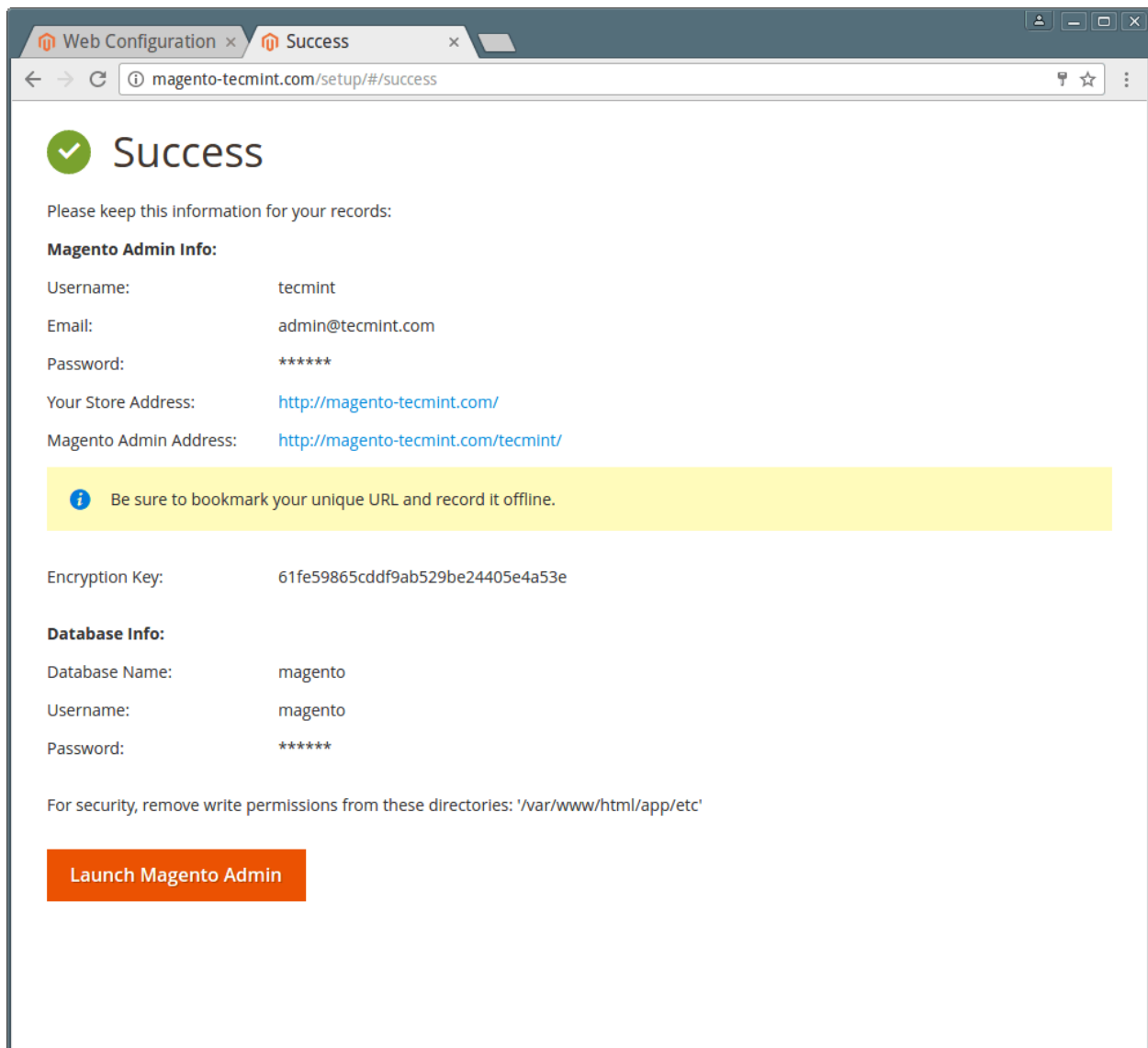
21. Now click 'Install Now' to continue Magento installation.

Install Magento





Magento Installation Completes



That's it! you have successfully installed Magento in CentOS 7.

# **Features**

## **#1. Magento is Open Source**

Magento Community Edition is free. You can install, alter or use this edition of Magento in any manner you like. If you have a Magento specialist by your side, it's possible to supercharge the Magento code and power up the ecommerce website with new features and desired functionality by installing Magento extensions. These extensions are made available through Magento Connect marketplace.

## **#2. Community Support**

Since it's an open source solution, there's a large community of developers around the world working on it on a day to day basis, ensuring the ecommerce platform is up to date, secure & fast. Help is readily available.

## **#3. Built for E-Commerce**

WordPress, although considered a full-blown CMS today, isn't built specifically for e-commerce like Magento. That's precisely why Magento scores over 'Wordpress + WooCommerce' and 'Drupal + Drupal Commerce' combos. This ecommerce solution comes preloaded with scores of features and specs needed to put up a functional e-commerce website.

## **#4. Highly Scalable**

Magento is suitable for small e-commerce companies serving just one town or a state as well as MNCs. It grows with your business; regardless of the kind of e-commerce features or enhancements you need, Magento will never fail to surprise you (pleasantly, of course!). No wonder why so many Fortune 500 companies (most having very complex e-commerce operations) are using Magento. Samsung Mobile Shopping Site – Powered by Magento

## **#5. High Performance**

When it comes to page load speed, query processing time and other such performance parameters, Magento emerges as a winner again.

## **#6. Flexible**

Magento has open system architecture; a Magento specialist can therefore help create appealing and highly unique user experiences corresponding to different types of access devices. It is also possible to add customized back-end workflows to meet specific business requirements. With Magento, a modular ecommerce solution at the core, you're in control of how you want your ecommerce website to look and perform.

## **#7. Multi Tenant**

With one backend CMS, Magento allows you to create multiple online stores. You can control all of your inventory, billing tasks, customer records etc. from a single admin dashboard.

## #8. Easy Integrations

Integrating Magento with a multitude of third party services including payment gateways, database applications, shipping, shipment tracking etc. is quick and easy. In addition to this, the platform is already associated with Google Analytics, Google Checkout and Google Base.

## #9. SEO Friendly

Much like WordPress, Magento is a highly SEO-friendly content management system. It comes preloaded with various SEO features such as search engine friendly URLs, sitemaps, layered navigation, URL rewrites, meta tags, descriptions etc.

## #10. Support for Mobile Commerce

Both Community and Enterprise editions of Magento e-commerce CMS are now incorporating multiple HTML5 capabilities, thus ensuring provision of superior mobile shopping experiences. From image scaling and AV capabilities to gesture based controls, Magento based stores can also have drag and drop features.

## Usecases

Magento has the distinction of being the MOST popular CMS for e-commerce. Some of the biggest brands use Magento and so do millions of small and mid-sized e-commerce companies around the globe such as.

- Samsung
- Fort
- Fox Connect
- Levono
- Olympus
- Men's Health
- Vizio
- Nestle Nespresso
- Nike etc



**BevMo!**

*Coca-Cola*

ADOREBEAUTY



BROWN-FORMAN

**Benefits Of Using Magento:**

- Easy to install and add additional layouts and plug-ins
- Open source technology that offers flexible, scalable ecommerce solutions
- Effective and cost sensitive program
- Allows for various discounts and promotions during check-out
- Provides more than 50 payment gateways