

IT 네트워크 시스템 *IT Network Systems* *Administration*

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✦ - Worldskills Korea - Assessment Task (IT Network Systems) -  [Written by NullBins]

- By default, the commands are executed as a root user.

[Project-1] < Linux Environments >

10. Web 서버 구성 (Web Service Configuration)

- ✦ DONG-SRV 및 DAE-SRV 에서 Web 서버 구성 구성 시 패키지 도구는 APACHE2를 사용함.

< Configuration >

- [DONG-SRV1]

```
apt install apache2 libaprutil1-dbd-mysql mariadb-client -y
```

```
cd /etc/ssl/DONG-CA/certs  
openssl req -new -out dong-www.req -newkey rsa:2048 -keyout dong-www.key -nodes  
# CN=www.donghyun.net
```

```
vim san
```

```
subjectAltName = DNS:www.donghyun.net
```

```
openssl ca -in dong-www.req -out dong-www.crt -extfile san # PW: Skill39
```

```
vim /etc/apache2/sites-available/default-ssl.conf
```

```

<IfModule mod_ssl.c>
  <VirtualHost _default_:443>
    ServerName www.donghyun.net
    DocumentRoot /var/www/html
    DBDriver mysql
    DBDParams
"host=192.168.1.2,port=3306,dbname=WEB,user=root,pass=Skill39"

    <Directory /var/www/html>
      AuthType Basic
      AuthName "DB"
      AuthBasicProvider dbd
      AuthDBUserPWQuery "SELECT passwd FROM web WHERE username = %s"
      Require valid-user
    </Directory>

    SSLCertificateFile      /etc/ssl/DONG-CA/certs/dong-www.crt
    SSLCertificateKeyFile    /etc/ssl/DONG-CA/certs/dong-www.key

    SSLCACertificatePath    /etc/ssl/DONG-CA/
    SSLCACertificateFile     /etc/ssl/DONG-CA/cacert.pem
  </VirtualHost>
</IfModule>

```

```
vim /var/www/html/index.html
```

```
<center><h2>Welcome to Donghyun Networks!</h2></center>
```

```
htpasswd -bns user01 Skill39 > /root/users.sql
```

```
vim /root/users.sql
```

```

INSERT INTO web (username, passwd) VALUES
('user01','{SHA}Ber1DA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user02','{SHA}Ber1DA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user03','{SHA}Ber1DA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user04','{SHA}Ber1DA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user05','{SHA}Ber1DA2q7NChn14D0Q1UuDmh0T8=');

```

```
INSERT INTO web (username, passwd) VALUES
('user06','{SHA}BerlDA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user07','{SHA}BerlDA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user08','{SHA}BerlDA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user09','{SHA}BerlDA2q7NChn14D0Q1UuDmh0T8=');
INSERT INTO web (username, passwd) VALUES
('user10','{SHA}BerlDA2q7NChn14D0Q1UuDmh0T8=');
```

```
mysql -h 192.168.1.2 -u root -pSkill39 WEB < /root/users.sql
```

```
a2enmod ssl dbd authn_dbd
a2ensite default-ssl.conf
systemctl restart apache2
```

- [DAE-SRV]

```
apt install apache2 php libapache2-mod-php -y
```

```
cd /etc/ssl/DONG-CA/certs
openssl req -new -out dae-www.req -newkey rsa:2048 -keyout dae-www.key -nodes
# CN=www.daeseong.net
```

```
vim san
```

```
subjectAltName = DNS:www.daeseong.net
```

```
openssl ca -in dae-www.req -out dae-www.crt -extfile san # PW: Skill39
```

```
vim /etc/apache2/apache2.conf
```

```
<Directory /var/www/php>
    AuthType basic
    AuthName "ldap"
    AuthBasicProvider ldap
    AuthLDAPURL "ldap://DAE-SRV.daeseong.net/dc=daeseong,dc=net?uid"
    Require valid-user
</Directory>
```

```
vim /etc/apache2/sites-available/default-ssl.conf
```

```
<IfModule mod_ssl.c>
    <VirtualHost _default_:443>
        ServerName www.daeseong.net
        DocumentRoot /var/www/php

        SSLCertificateFile      /etc/ssl/DONG-CA/certs/dae-www.crt
        SSLCertificateKeyFile    /etc/ssl/DONG-CA/certs/dae-www.key

        SSLCACertificatePath     /etc/ssl/DONG-CA/
        SSLCACertificateFile     /etc/ssl/DONG-CA/cacert.pem
    </VirtualHost>
</IfModule>
```

```
mkdir -p /var/www/php
```

```
vim /var/www/php/index.php
```

```
<?php
$username = $_SERVER['REMOTE_USER'];
echo "<center><h2>Welcome to Daeseong Networks, $username</h2></center>";
>
```

```
1 <?php
2     $username = $_SERVER['REMOTE_USER'];
3     echo "<center><h2>Welcome to Daeseong Networks, $username</h2></center>";
4 ?>
```

```
a2enmod ssl authnz_ldap
a2ensite default-ssl.conf
systemctl restart apache2
```

- 🚀 DONG-CLI 및 DAE-CLI 에서 Web 서버 인증 설정 DONG-CA에서 RootCA 인증서를 가져와 인증합니다.
- [DONG-CLI]

```
scp root@dong-srv.donghyun.net:/etc/ssl/DONG-CA/cacert.pem /usr/local/share/ca-
certificates/ca.crt
update-ca-certificates
```

Open Firefox

General

Home

Search

Privacy & Security

Sync

More from Mozilla

Browser Privacy

Enhanced Tracking Protection

Trackers follow you around online to collect information about your browsing habits and interests. Firefox blocks many of these trackers and other malicious scripts. [Learn more](#)

Standard

Certificates

☒ Query OCSP responder servers to confirm the current validity of certificates

View Certificates...

Security Devices...

AC Camerfirma SA CIF A82743287

Camerfirma Chambers of Commerce R...	Builtin Object Token
Camerfirma Global Chambersign Root	Builtin Object Token

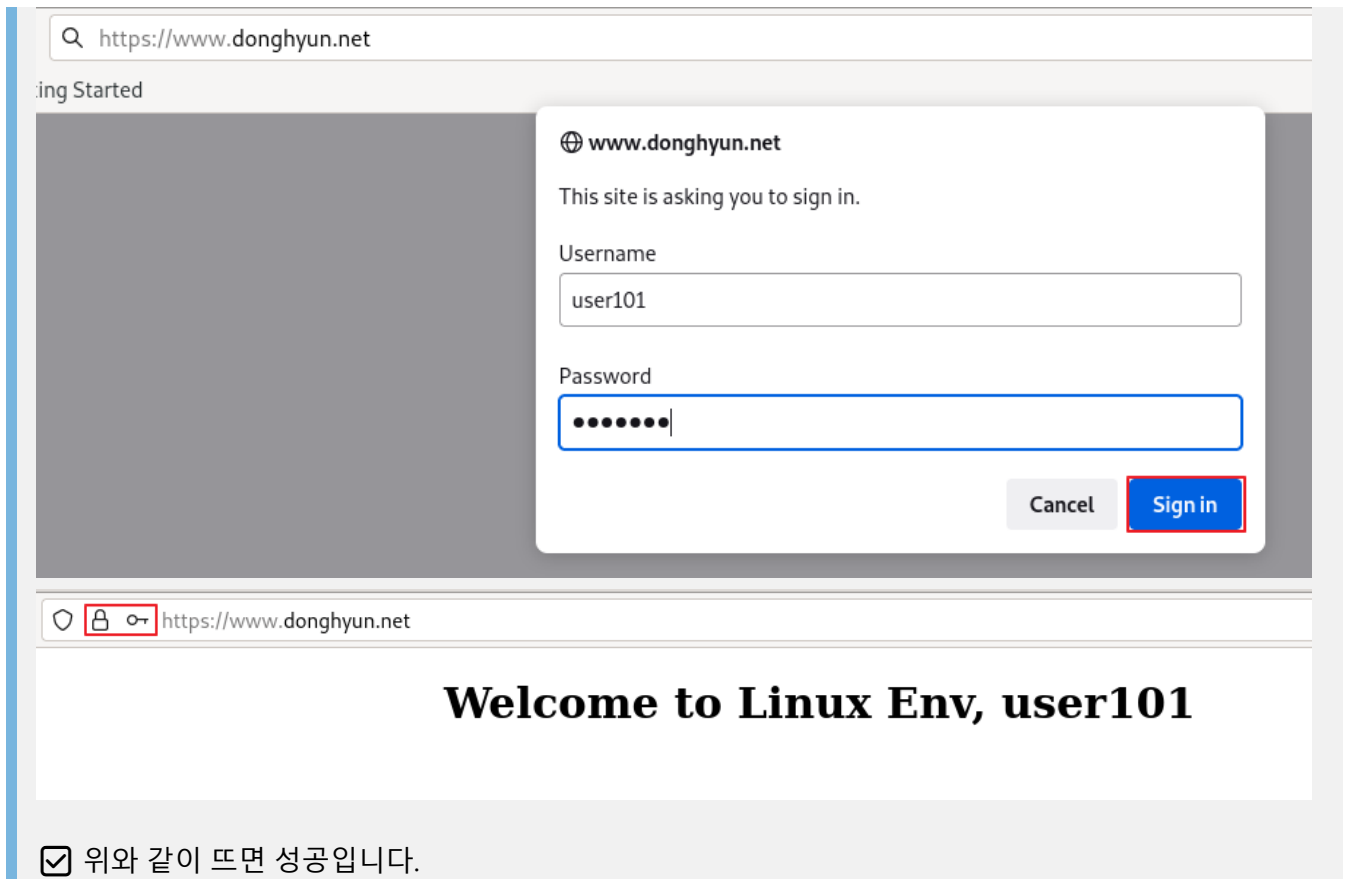
View... Edit Trust... **Import...** Export... Delete or Distrust...

Select File containing CA certificate(s) to import

Name	Location	Size	Type	Accessed
ca.crt	/usr/local/share/ca-certificates	4.2 kB	X.509 Certificate	06:39

☒ 위와 같이 설정합니다.

- 🚀 Web 서버 접속 테스트



- [DAE-SRV, DAE-CLI] -> 과제지를 참고하여 위처럼 동일하게 Web Service 설정.