Installing ADReset on Ubuntu 14.04

Prerequisites:

1. Ubuntu 14.04 server with:
    a. Sudo/Root access
    b. DNS configured to point to at least one Domain Controller
    c. At least one Domain Controller with LDAPS enabled

Installing Apache, MySQL, and PHP:

1. Update Ubuntu with the following commands:
   sudo apt-get update
   sudo apt-get dist-upgrade
2. Install the Apache2 webserver with the following command:
   sudo apt-get install apache2
3. Install MySQL with the following command:
   sudo apt-get install mysql-server php5-mysql
4. When prompted, enter a strong root password for MySQL.
5. Initialize and secure MySQL with the following commands:
   sudo mysql_install_db
   sudo mysql_secure_installation
6. After running the "mysql_secure_installation" command, enter "Y" for:
    a. Remove anonymous users
    b. Disallow root login remotely
    c. Remove test database and access to it
    d. Reload privilege tables now
7. Install PHP and the appropriate modules:
   sudo apt-get install php5 libapache2-mod-php5 php5-mcrypt php5-ldap php5-gd
8. Enable PHP mcrypt with the following command (may not be necessary):
   sudo php5enmod mcrypt
9. Tell Apache to prefer index.php over index.html by editing dir.conf with the following command:
   sudo nano /etc/apache2/mods-enabled/dir.conf
10. In dir.conf, change the following:
    DirectoryIndex index.html index.cgi index.pl index.php index.xhtml index.htm
    To:
    DirectoryIndex index.php index.html index.cgi index.pl index.xhtml index.htm
11. Close and save dir.conf
12. Restart Apache with the following command:
    sudo service apache2 restart

Installing ADReset on Apache:

1. ADReset requires a database and a user, to do this, start by connecting MySQL with the following command:
   mysql -u root -p
2. Once you enter your root password, type the following command (replace password with a strong password):

   CREATE DATABASE IF NOT EXISTS adreset;
   CREATE USER 'adresetuser'@'127.0.0.1' IDENTIFIED BY 'password';
   GRANT ALL PRIVILEGES ON adreset.* TO 'adresetuser'@'127.0.0.1';
   FLUSH PRIVILEGES;
   QUIT;

3. In order to have ADReset communicate over LDAPS, it needs to have the appropriate Windows Active Directory Certificate Services (ADCS) CA certificate in BASE64 format. Export that certificate, and then create a new file with the following command:
   sudo nano /usr/local/share/ca-certificates/adca.crt
4. Paste the contents of the ADCD CA certificate in adca.crt and save the file.
5. Now, run the following command for Ubuntu to import the new certificate:
   sudo update-ca-certificates
6. Now edit ldap.conf with the following command:
   sudo nano /etc/ldap/ldap.conf
7. Then change the following line (if the file is missing, just create it with that line in it):
   TLS_CACERT /etc/ssl/certs/ca-certificates.crt
   To:
   TLS_CACERT /usr/local/share/ca-certificates/adca.crt
8. Install git with the following command:
   sudo apt-get install git
9. Make a directory for ADReset with the following command:
   sudo mkdir /var/www/adreset && sudo cd /var/www/adreset
10. Download ADReset with the following command:
    sudo git clone https://github.com/PrahlM93/ADReset.git /var/www/adreset
11. Set the appropriate permissions for Apache with the following commands:
    sudo chown -R www-data:www-data /var/www/adreset
    sudo find /var/www/adreset/ -type d -exec chmod 550 {} \;
    sudo find /var/www/adreset/ -type f -exec chmod 440 {} \;
    sudo chmod 770 /var/www/adreset/resources/core
    sudo chmod 770 /var/www/adreset/resources/logs
12. **Optional But Recommended – Setting up SSL (HTTPS):**

a. Create the directory to hold the certificates with the following command :
   sudo mkdir /etc/apache2/certificates
b. Then move the signed certificate and the private key to the folder just created with the following commands:
   sudo mv /path/to/cert/certname.pem /etc/apache2/certificates/cert.pem
   sudo mv /path/to/key/keyname.pem /etc/apache2/certificates/key.pem
c. Provide proper permissions to the certificate and private key with the following commands:
   sudo chown -R root:root /etc/apache2/certificates
   sudo chmod 440 /etc/apache2/certificates/*
d. Enable the SSL module for Apache with the following command:
   sudo a2enmod ssl
e. Enable the Rewrite module for Apache with the following command:
   sudo a2enmod rewrite
f. Enable the Headers module for Apache with the following command:
   sudo a2enmod headers

13. Disable the default site for Apache:
    sudo a2dissite 000-default.conf
14. Create an Apache configuration file for ADReset with the following command:
    sudo nano /etc/apache2/sites-available/adreset.conf
    a. For just HTTP (no SSL):

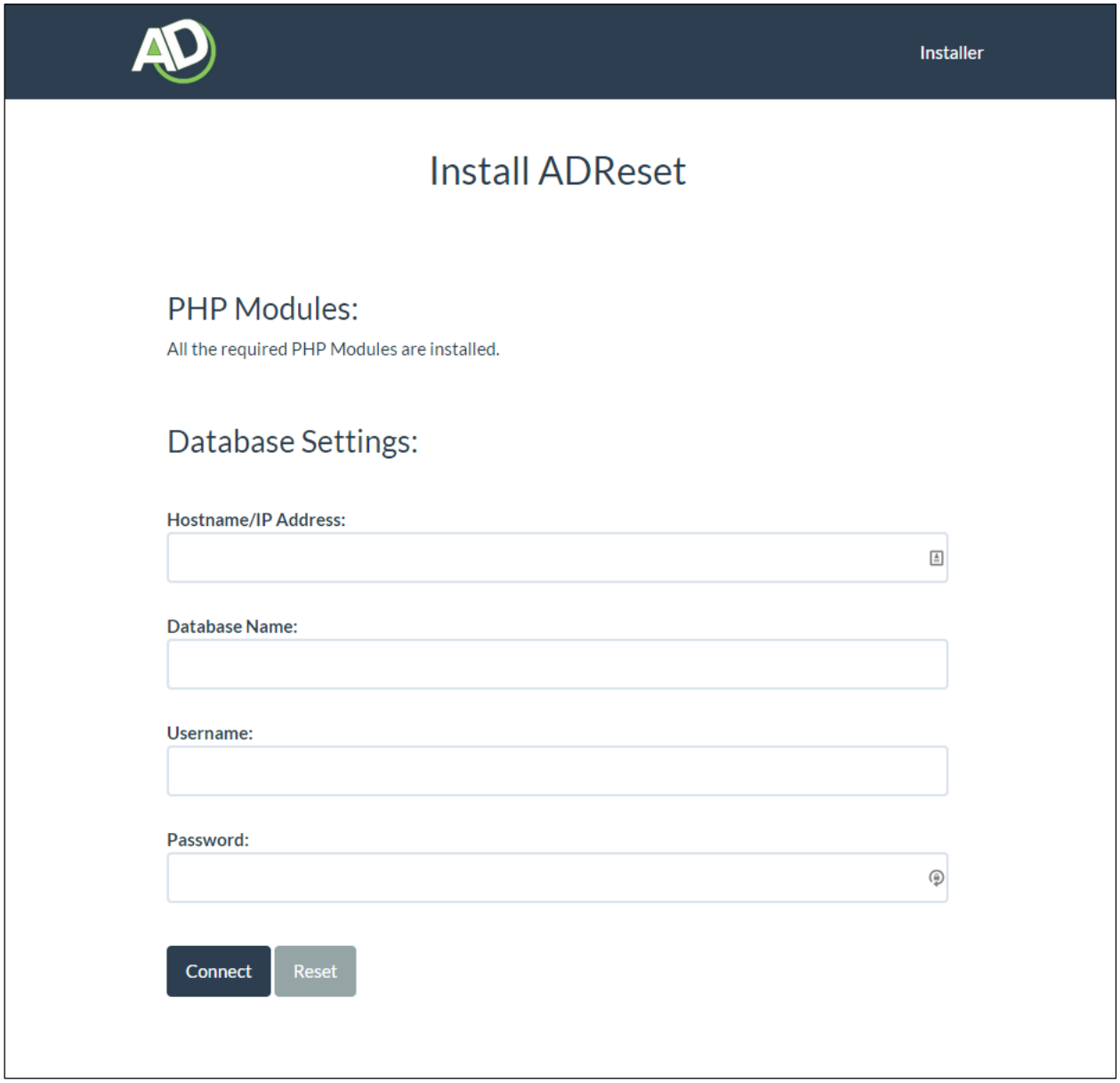
```
<VirtualHost *:80>
    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/adreset/public

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
```

b. For SSL (HTTPS):

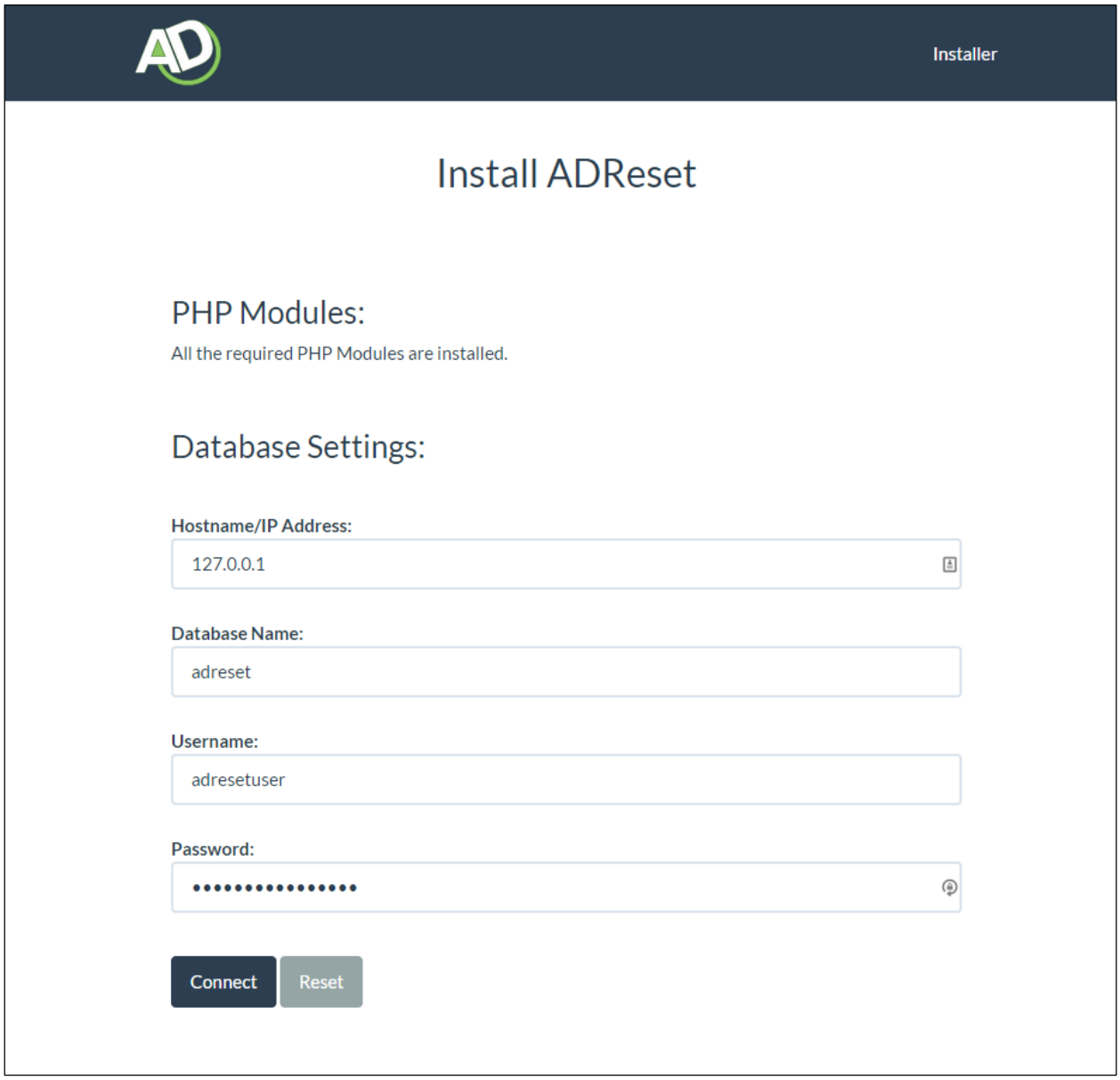
```
<VirtualHost *:80>
        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/adreset/public

        ErrorLog ${APACHE_LOG_DIR}/error.log
        CustomLog ${APACHE_LOG_DIR}/access.log combined
        RewriteEngine On
        RewriteCond %{HTTPS} off
        RewriteRule (.*) https://%{HTTP_HOST}%{REQUEST_URI}
</VirtualHost>

<IfModule mod_ssl.c>
    <VirtualHost *:443>
        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/adreset/public

        ErrorLog ${APACHE_LOG_DIR}/error.log
        CustomLog ${APACHE_LOG_DIR}/access.log combined

        SSLEngine on
       #Prevents SSL Strip
       Header set Strict-Transport-Security "max-age=16070400; includeSubDomains"
        SSLCertificateFile      /etc/apache2/certificates/cert.pem
        SSLCertificateKeyFile   /etc/apache2/certificates/key.pem

        <FilesMatch "\.(cgi|shtml|phtml|php)$">
                SSLOptions +StdEnvVars
        </FilesMatch>
        <Directory /usr/lib/cgi-bin>
                SSLOptions +StdEnvVars
        </Directory>

        BrowserMatch "MSIE [2-6]" \
                nokeepalive ssl-unclean-shutdown \
                downgrade-1.0 force-response-1.0

        # MSIE 7 and newer should be able to use keepalive
        BrowserMatch "MSIE [17-9]" ssl-unclean-shutdown
    </VirtualHost>
</IfModule>
```

15. Enable the new site with the following command:
    sudo a2ensite adreset.conf

16. Restart Apache with the following command:
    sudo service apache2 restart
17. From any computer, navigate to ADReset's installer (replacing ip.add.re.ss with your web server's IP address):
    http://ip.add.re.ss/installer.php
18. On this page, it will make sure you have all the PHP modules that are required. If any are missing, go back to the section **"Installing Apache, MySQL, and PHP"**. If you followed the directions correctly, you should see a screen that looks like this:

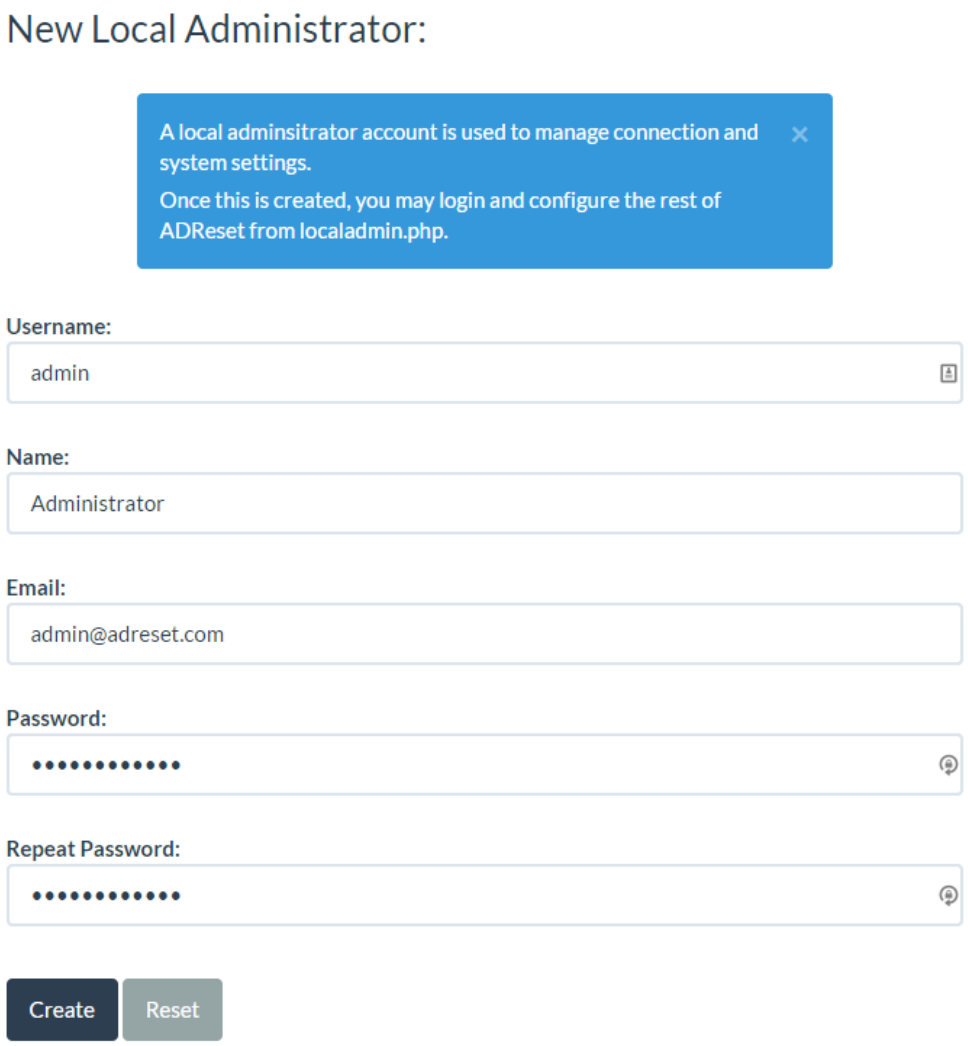


19. Now enter the settings you configured in step 2. It should look something like this:



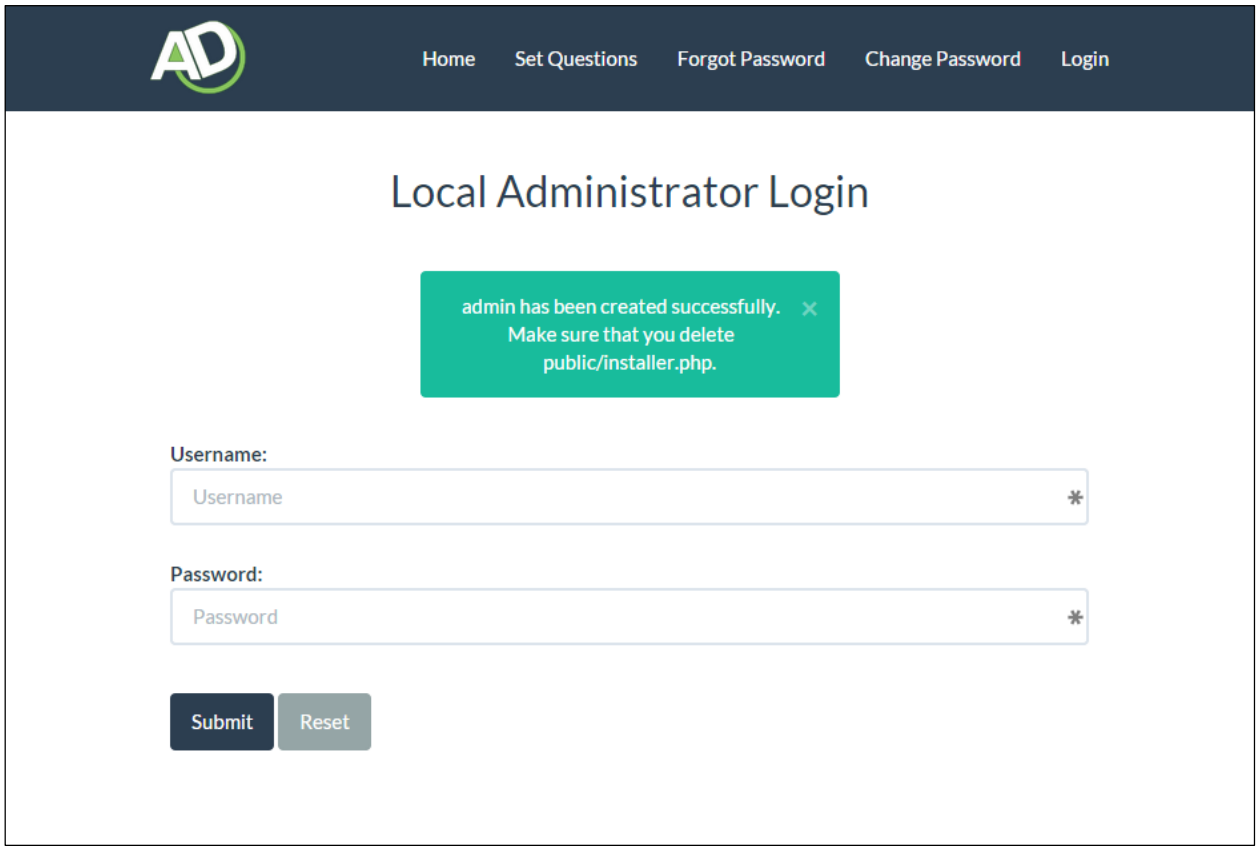
20. Once the form is filled out, click on “Connect”.

21. Afterwards, you must create a local administrator account to initially configure ADReset. Here is an example:



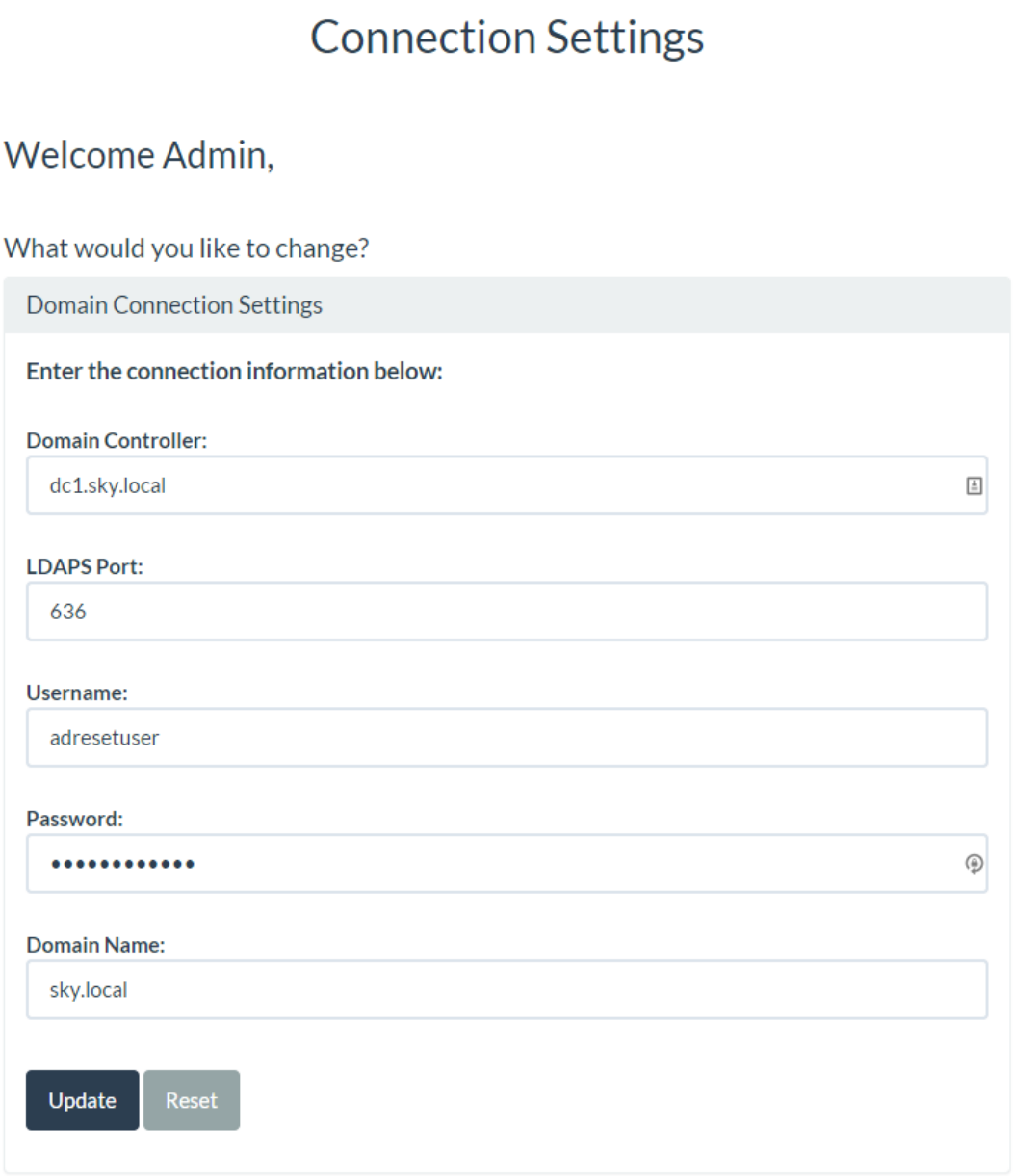
22. Once the form is filled out, click on “Create”.

23. If successful, you should see the following message:



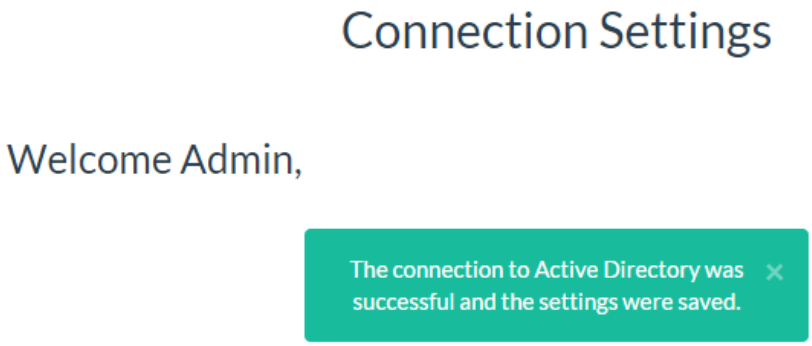
24. Go back to your command-line shell on Ubuntu and delete installer.php with the following command:
    sudo rm /var/www/adreset/public/installer.php
25. Go back to ADReset and login with your new Administrator account.

26. Upon login, you should be taken to the “Connection Settings” page. Here you will specify how to connect to Active Directory. Here is an example where sky.local is the domain:



27. Make sure that the Domain Controller you specify has LDAPS enabled. If all of your Domain Controllers have LDAPS enabled, it is recommended to put the domain name in the Domain Controller field (i.e. sky.local) as this will allow ADReset to connect to any available Domain Controller.

28. If the connection was successful, you will receive the following message:



29. Now, it is time configure the System Settings, to do so, click on “Manage” then click on “System Settings”.