CURL SITE VERSION 1.0.1 BETA

DEPLOYMENT GUIDE

Data Science to Patient Value (D2V)
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

University of Colorado **Anschutz Medical Campus**

To obtain a license to use the CURL applications from the University of Colorado, please contact the CU Innovations office at curl.registration@ucdenver.edu

Overview

This document describes the steps required to deploy the CURL Site application. Choose from the following options:

- **Option 1:** Docker image from Docker hub
- **Option 2:** Java application from Github

These options are described in detail in the following sections.

Option 1: Docker Based Deployment

Requirements

- Desktop Operating System:
  - MAC OS X Yosemite 10.10.3 or above
  - Windows 10
  - Ubuntu (14.04, 16.04, 16.10, 17.04)
  - CentOS
  - Debian
  - Fedora
- Docker CE (latest stable)
- 64-bit Operating System

  NOTE: For previous versions, download Docker Toolbox at
  https://www.docker.com/products/docker-toolbox.

Installing Docker Software

1. Download Docker for your platform at www.docker.com
2. Install Docker by opening the installation file.

Deploying CURL Site Docker Image

To deploy using this option, please email your Docker Hub username to
curl.registration@ucdenver.edu

From a terminal window, use the following components to deploy the CURL Site Docker image.

1. Login to Docker Hub using your Docker ID and password:
   ```
   $ docker login
   Login with your Docker ID to push and pull images from
   ```

```
Docker Hub. If you don't have a Docker ID, go to
https://hub.docker.com to create one.
Username: your docker username
Password: your docker password
Login Succeeded
```

2. Download file "docker-compose.yml" from https://github.com/CUD2V/curl-site-releases/tree/master/docker to a folder on your computer.

3. Go back to the terminal. Change to the folder where the docker-compose file is located and use the following command to pull and deploy the CURL Site Docker image from Docker Hub:
   ```
   $ docker-compose up -d
   ```

From a browser window, go to: http://localhost:8060 to access the CURL Site application.

Stopping Docker CURL Site Container

From a terminal window, use the following commands to stop the CURL Site Docker container:

1. Go back to the terminal. Change to the folder where the docker-compose file is located and use the following command to stop Docker CURL Site container:
   ```
   $ docker-compose down --volumes --rmi all
   ```

Removing CURL Site Application

From a terminal window, use the following commands to remove the CURL Site Docker container:

1. Determine the container ID of the CURL Site container:
   ```
   $ docker ps -a
   CONTAINER ID        IMAGE
   COMMAND                     CREATED               STATUS
   PORTS                       NAMES
   11f46bd042ef        cudd2v/curl-keymaster:0.0.5-SNAPSHOT
   "java -jar curl-ke..."   3 days ago            Up 5 seconds
   0.0.0.0:8060->8080/tcp   serene_wiles
   ```

2. Stop the container using its container ID (NOTE: Your container ID will be different):

   ```
   $ docker stop 11f46bd042ef
   11f46bd042ef.
   ```

3. Remove the container (NOTE: Your container ID will be different):
   ```
   $ docker rm 11f46bd042ef
   11f46bd042ef
   ```

4. Remove the volume:
   ```
   $ docker volume rm curl-site-data
   curl-site-data
   ```

5. Remove the image:
   ```
   $ docker image rm cudd2v/curl-site:0.0.8-SNAPSHOT
   ```

Running on a Different Network Port

If you are already running an application on network port 8060, you may configure CURL Site to use a different port.

1. Edit the *docker-compose.yml* file and change the left occurrence of 8060 to another number, such as 9090 in the following example:

   ```
   version: "3"
   services:

     app:
       image: cudd2v/curl-site:0.0.8-SNAPSHOT
       ports:
        - 9090:8080
       volumes:
        - curl-site:/curl-site

   volumes:
    curl-site:
   ```

2. Use docker-compose to deploy a container that will now use the new network port:

   ```
   $ docker-compose up -d
   Creating network "docker_default" with the default driver
   Creating docker_app_1 ...
   Creating docker_app_1 ... done
   ```

3. Navigate to *http://localhost:9090* or whatever new port you chose.

Option 2: Java JAR Based Deployment

Requirements

- Desktop Operating System:
  - MAC OS X 10.10 or above
  - Windows 7 or 10
  - Ubuntu 14 or above
  - CentOS
  - Debian
  - Fedora
- Oracle Java JRE 1.8

Installing Oracle Java JRE 1.8

1. From a terminal window, use the following commands to determine if Oracle Java 1.8 is installed (note that update version may be different on your system):
   ```
   $ java -version
   java version "1.8.0_121"
   Java(TM) SE Runtime Environment (build 1.8.0_121-b13)
   Java HotSpot(TM) 64-Bit Server VM (build 25.121-b13, mixed mode)
   ```

2. If the java command is not found or version 1.8 is not installed, then download it from the Oracle website at:

   http://www.oracle.com/technetwork/java/javase/downloads/jre8-downloads-2133155.html

3. Follow the instructions provided on the Oracle website to install Java JRE 1.8.

Deploying CURL Site Application

MAC OS X or Linux

1. Create a directory where you will install the CURL Site application files, e.g. ~/curl-site.
2. From a browser window, go to https://github.com/CUD2V/curl-site-releases/tree/master/jar and download the curl-site.jar, curl-site mv.db, and curl-site.sh files into the curl-site directory.
3. Edit the curl-site.sh file and set the **CURL_SITE_BASE_DIRECTORY** variable to point to the directory you created in step 1.
4. From a terminal window, enable execute permission for the curl-site.sh file:
   ```
   $ chmod u+x ~/curl-site/curl-site.sh
   ```

Windows

1. Create a directory where you will install the CURL Site application files, e.g. C:\Users*username*\curl-site.
2. From a browser window, go to https://github.com/CUD2V/curl-site-releases/tree/master/jar and download the curl-site.jar, curl-site.mv.db, and curl-site.bat files into the curl-site directory.
3. Edit the curl-site.bat file and set the CURL_SITE_BASE_DIRECTORY variable to point to the curl-site directory.

Starting CURL Site Application

MAC OS X or Linux

- Execute the curl-site.sh script.

Windows

- Execute the curl-site.bat file.

Stopping CURL Site Application

- Type CTRL-C in the terminal window where the CURL Site application is running.

Removing CURL Site Application

- Delete the curl-site directory and its contents.

Running on a Different Network Port

If you are already running an application on network port 8080, you may configure CURL Site to use a different port.

1. Change the directory to where you copied the CURL Site files.
2. Edit curl-site.sh (Linux) or curl-site.bat (Windows) and change the server.port value to another number, such as 9090 in this example:

```
java -jar $CURL_SITE_BASE_DIRECTORY/curl-site.jar --
server.port=9090
```

3. Execute the curl-site.sh (Linux) or curl-site.bat (Windows) to start the CURL Site application and then navigate to *http://localhost:9090* or whatever new port you chose.