myMedications Application Installation

# Purpose

This document describes the steps needed to build and install the myMedications application.

# Docker Installation

The following Docker installation assumes the following:

* you have git installed
* you have a user with correct permissions to run Docker
* you have the IP or hostname of the host running Docker

## Install Docker

1. Log in as a user with sudo privileges.
2. Verify that you have wget installed.  
   $> which wget
3. If wget isn’t installed, install it after updating your manager:  
   $> sudo apt-get update  
   $> sudo apt-get install wget
4. $ wget -qO- https://get.docker.com/ | sh

The system prompts you for your sudo password. Then, it downloads and installs Docker and its dependencies.

## Verify docker is installed correctly

$> docker run hello-world

Unable to find image 'hello-world:latest' locally

511136ea3c5a: Pull complete

31cbccb51277: Pull complete

e45a5af57b00: Pull complete

hello-world:latest: The image you are pulling has been verified.

Important: image verification is a tech preview feature and should not be relied on to provide security.

Status: Downloaded newer image for hello-world:latest

Hello from Docker.

This message shows that your installation appears to be working correctly.

## Docker images

Our docker deployment consists of two images:

1. Docker Hub Tomcat image: https://registry.hub.docker.com/\_/tomcat and is inherited by our image through our Dockerfile
2. Docker Hub MongoDB image: https://registry.hub.docker.com/\_/mongo and is run during the Build and Deploy step #5 below.

## Dockerfile

Below are the contents of our Dockerfile used to deploy the application to Docker (inherits Tomcat):

FROM tomcat:8  
MAINTAINER "Jeff Heath <jeff.heath@clearavenue.com>"  
ADD FDADI.war /usr/local/tomcat/webapps/

# Docker Deployment

## Clone myMedications repository

1. $> mkdir clearavenue
2. $> cd clearavenue
3. $clearavenue> git clone https://github.com/clearavenue/FDADI.git
4. $clearavenue> cd FDADI

## Edit myMedications.properties

The myMedications application needs to know where Docker mongoDB is installed. The *myMedications.properties* file, located in <sourcecode\_root>\src\main\resources will need to be updated to reflect the MongoDB location.

1. Edit the <sourcecode root>\src\main\resources\myMedications.properties file
2. Specify the correct *mongoServerHost* property
3. Specify the correct *mongoServerPort* property
4. Save and exit the file editor

## Build and Deploy

1. $clearavenue/FDADI> mvn package –Dskiptests
2. $clearavenue/FDADI> cp target/fdadi.war docker/FDADI.war
3. $clearavenue/FDADI> cd docker
4. $clearavenue/FDADI/docker> docker build –t clearavenue/mymeds .  
   *This step will build the Docker container using the Dockerfile that provides a running instance of Tomcat8*
5. $clearavenue/FDADI/docker> docker run –name clearavenue-mymeds-mongo –d mongo  
   *This step will run the Docker Hub mongodb image*
6. $clearavenue/FDADI/docker> docker run –p 8080:8080 –link clearavenue-mymeds-mongo:mongo –name clearavenue-mymeds –d clearavenue/mymeds  
   *This step starts our container along with the Tomcat instance and links in the running mongodb instance*

You can now access and use the clearAvenue myMedications application at *http://your.docker.host:8080/FDADI*

## To stop the Docker instance

1. docker stop clearavenue-mymeds
2. docker stop clearavenue-mymeds-mongo
3. docker rm $(docker ps –a –q)
4. docker rmi $(docker images –q)