Install Wizard for FHIR

HAPI-FHIR Server base on Ubuntu 16.04 64bit

How to start

First,check out the source code archive called `hapi-fhir-jpaserver-example-postgres.zip`

Second, extract the archive and enter the directory.

```
cd hapi-fhir-jpaserver-example-postgres
```

You now have two options for starting the server:

- New machine:

```
sudo bash begin.sh -p <Service Port>
```

- If already installed JDK,Maven3,Docker :

```
sudo bash deploy.sh -p <Service Port>
```

<Service Port> is the port you want to deploy HAPI-FHIR Server.

Example: sudo bash begin.sh -p 8080

You can access the server by pointing your browser at the following URL: http://localhost:8080/

Begin.sh

Update and upgrade

```
sudo apt-get update
sudo apt-get upgrade
```

Download and Configure JDK

```
mkdir /usr/java
wget --no-check-certificate --no-cookies --header "Cookie: oraclelicense=accept-securebackup-cookie" http://download.oracle.com/otn-pub/java/jdk/8u121-b13/e9e7ea248e2c4826b92b3f075a80e441/jdk-8u121-linux-x64.tar.gz
tar zxvf ./jdk-8u121-linux-x64.tar.gz -C /usr/java
cp /root/.bashrc /root/.bashrc.beforeAddJDK.bak
echo 'JAVA_HOME=/usr/java/jdk1.8.0_121 #456' >> /root/.bashrc
echo 'JRE_HOME=$JAVA_HOME/jre' >> /root/.bashrc
echo 'JAVA_BIN=$JAVA_HOME/bin' >> /root/.bashrc
echo 'CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar:$JRE_HOME/lib' >> /root/.bashrc
echo 'PATH=$PATH:$JAVA_HOME/bin:$JRE_HOME/bin' >> /root/.bashrc
echo 'export JAVA_HOME JRE_HOME PATH CLASSPATH' >> /root/.bashrc
source /root/.bashrc
cp /etc/profile /etc/profile.beforeAddJDK.bak
echo 'JAVA_HOME=/usr/java/jdk1.8.0_121 #123' >> /etc/profile
echo 'JRE_HOME=$JAVA_HOME/jre' >> /etc/profile
echo 'JAVA_BIN=$JAVA_HOME/bin' >> /etc/profile
echo 'CLASSPATH=.:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/lib/tools.jar:$JRE_HOME/lib' >> /etc/profile
echo 'PATH=$PATH:$JAVA_HOME/bin:$JRE_HOME/bin' >> /etc/profile
```

```
        echo 'export JAVA_HOME JRE_HOME PATH CLASSPATH' >> /etc/profile
        source /etc/profile
        rm -rf /usr/bin/java
        rm -rf /usr/bin/javac
        rm -rf /usr/bin/jar
        ln -s /usr/java/jdk1.8.0_121/bin/java /usr/bin/java
        ln -s /usr/java/jdk1.8.0_121/bin/javac /usr/bin/javac
        ln -s /usr/java/jdk1.8.0_121/bin/jar /usr/bin/jar
```

Check out install success or not

```
        if [ -n "$(which java)" ]
        then
                echo ' '
                echo '[+]JDK 1.8.0_121 install success!'
                java -version
                echo ' '
        else
                echo ' '
                echo '[+]JDK 1.8.0_121 install failure!'
                echo ' '
                exit
        fi
```

Download and Configure Maven

```
        Wget
http://mirrors.tuna.tsinghua.edu.cn/apache/maven/maven-3/3.3.9/binaries/apache-maven-3.3.9-bin.tar.gz
        tar zxvf ./apache-maven-3.3.9-bin.tar.gz -C /usr/local
        cp /root/.bashrc /root/.bashrc.beforeAddMaven.bak
        echo 'export MVN_HOME=/usr/local/apache-maven-3.3.9' >> /root/.bashrc
        echo 'export PATH=$MVN_HOME/bin:$PATH' >> /root/.bashrc
        source /root/.bashrc

        if [ -n "$username" ]
        then
                echo "[++]$username"
                cp /home/$username/.bashrc /home/$username/.bashrc.beforeAddMaven.bak
                echo 'export MVN_HOME=/usr/local/apache-maven-3.3.9' >> /home/$username/.bashrc
                echo 'export PATH=$MVN_HOME/bin:$PATH' >> /home/$username/.bashrc
                source /home/$username/.bashrc
        fi

        cp /etc/profile /etc/profile.beforeAddMaven.bak
        echo 'export MVN_HOME=/usr/local/apache-maven-3.3.9' >> /etc/profile
        echo 'export PATH=$MVN_HOME/bin:$PATH' >> /etc/profile
        source /etc/profile
        rm -rf /usr/bin/mvn
```

```
ln -s /usr/local/apache-maven*/bin/mvn /usr/bin/mvn
```

Check out install success or not

```
if [ -n "$(which mvn)" ]
then
    echo ' '
    echo '[+]Maven-3.3.9 install success!'
    mvn -v
    echo ' '
else
    echo ' '
    echo '[+]Maven-3.3.9 install failure!'
    echo ' '
    exit
fi
```

Install Docker

```
curl -fsSL https://get.docker.com/ | sh
```

Check out install success or not

```
if [ -n "$(which docker)" ]
then
    echo ' '
    echo '[+]Docker install success!'
    docker -v
    echo ' '
else
    echo ' '
    echo '[+]Docker install failure!'
    echo ' '
    exit
fi
```

Deploy HAPI-FHIR server in <Service Port>

```
sudo bash ./deploy.sh -p $serviceport
```

Deploy.sh

Pull PostgreSQL repository

```
sudo docker run --name FHIR-postgreSQL -p 5432:5432 -d postgres
```

Create user role

```
sudo docker exec -it FHIR-postgreSQL psql -U postgres --command "create user hapi with password 'p@ssw0rd';"
```

Create table

```
sudo docker exec -it FHIR-postgreSQL psql -U postgres --command "create database hapi owner hapi;
```

Grant user

```
sudo docker exec -it FHIR-postgreSQL psql -U postgres --command "grant all privileges on database hapi to hapi;"
```

Compile source code and build docker repository

```
mvn package
docker build -t hapi-fhir/hapi-fhir-jpaserver-example-postgres .
```

FHIR repository link to PostgreSQL repository and run on <Service Port>

```
sudo docker run --link FHIR-postgreSQL:postgres -d -p $serviceport:8080 hapi-fhir/hapi-fhir-jpaserver-example-postgres
```