Special Instructions: Community Referral Application

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Project Name: Leverage Population Health Data To Improve Patient Adherence In Community Referral

Installation

- Git clone the repository (https://github.com/CDCgov/GaTech-Fall2017-Srinivasan-ImproveAdherence-DEVSonFHIR.git)

- Navigate to the *Final Delivery* subdirectory in the newly cloned project directory

  ```
  cd GaTech-Fall2017-Srinivasan-ImproveAdherence-DEVSonFHIR/Final\ Delivery/
  ```

- These next steps **must be run either as a user with docker run privileges or as root** (using "sudo su"). Note that it's not necessarily enough to just run each command individually with sudo, as the $BASE_URL environment variable won't get carried over correctly.

- Set the base URL where the services will run. For instance, if your base URL is "http://example.com", then the services will be at the following by default:

  - Sample EHR (CDS Hooks Sandbox) server: http://example.com:8080
  - FHIR server: http://example.com:8100/hapi-fhir-jpaserver-example
  - Referral (CDS Hooks) service: http://example.com:8200/cds-services/patient-referral
  - Referral web app: http://example.com:5000

- **Note:** If you are using a proxy, your server URLs may be different.

- If you are running locally, you could try using the Docker host as the BASE_URL:

  ```
  export BASE_URL=http://$(ifconfig|grep -E "([0-9]{1,3}\\.){3}[0-9]{1,3}" \
  | grep -v 127.0.0.1 | awk '{print $2}' | cut -f2 -d: | head -n1)
  ```

- Otherwise, use an externally-facing URL or IP address (**BASE_URL must prefixed by "http" or "https"**).

```
export BASE_URL=http://YOUR-URL-HERE.com
```

- By default, the FHIR_URL points to the $BASE_URL:8100. However, **if you have your FHIR server setup at a different URL or port number** you must configure that in the docker-compose.yml file under the *Final Delivery* directory. In that file, update the FHIR_URL (everywhere where it appears) to point to the base of your FHIR server. The lines that need to be updated look like the following.

```
FHIR_URL: ${BASE_URL}:8100/hapi-fhir-jpaserver-example/baseDstu2
```
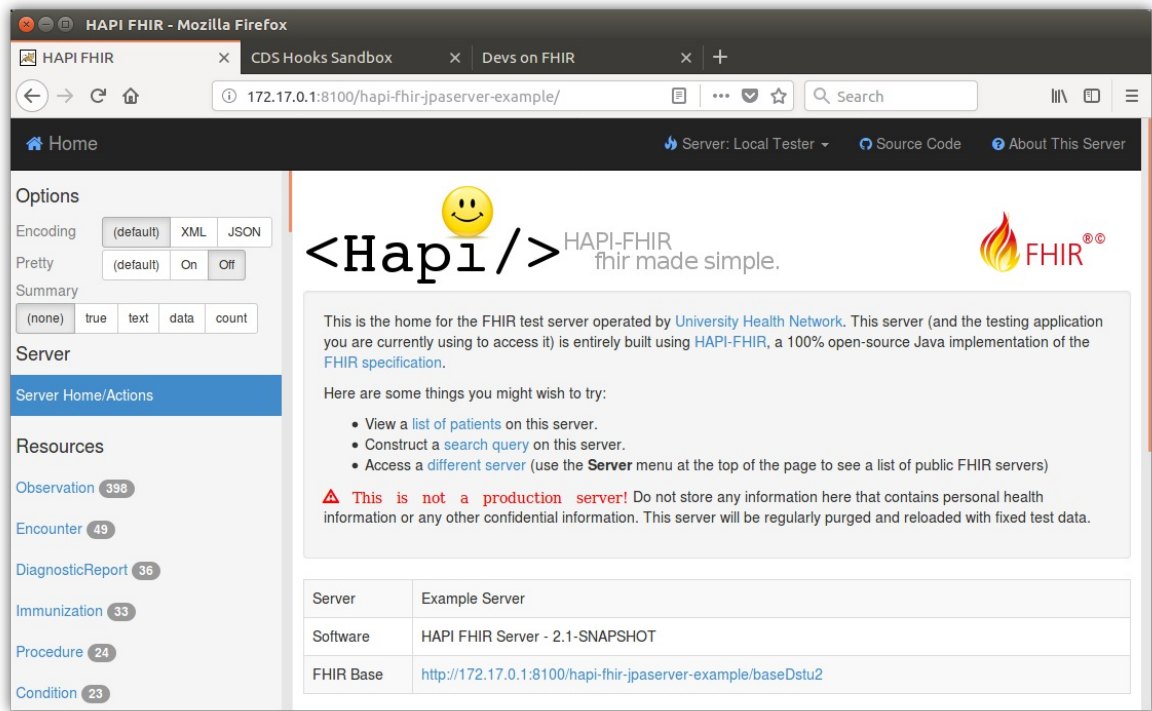
- Now run the docker-compose command.
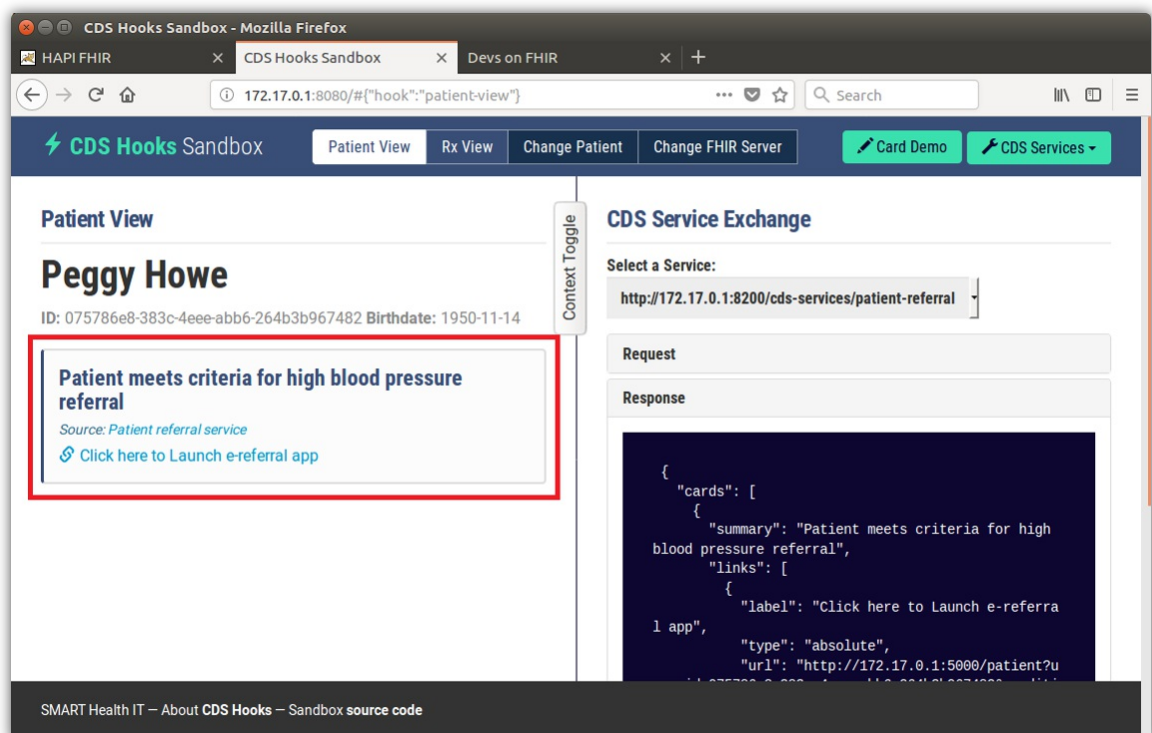
```
docker-compose up -d
```

This command may take a while to run (anywhere between 5-45 minutes depending on your machine), and **you may also have to wait some extra time after the docker-compose command completes** before all the services fully come up.

Verification

- To verify everything is up, in your web browser, navigate to $BASE_URL:8100/hapi-fhir-jpaserver-example/ (or your FHIR server URL without the base part) and make sure that the HAPI-FHIR page comes up with no error messages. It should look similar to this:
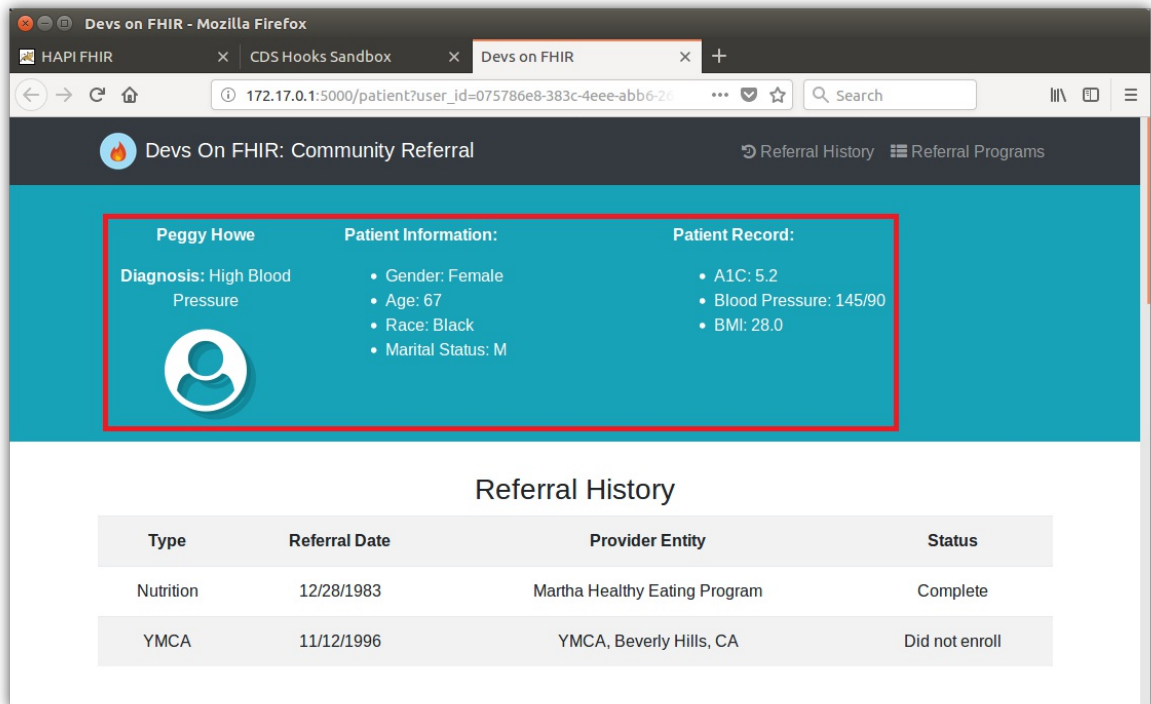
- Navigate to $BASE_URL:8080 (the CDS Hooks server URL). It should look like the following:

This is the main EHR (CDS Hooks Sandbox) page. Make sure the information inside the red box is present, particularly the "**Patient meets criteria for high blood pressure**" card. If the card says "Loading", that probably means not all the services are up yet.

- Now click on the "**Click here to Launch e-referral app**" link. You should see the following:

Make sure the information in the red box is present, and there are no blank values. Setup done!

Further usage instructions are in the manual.

Note on Docker images

We pre-created some Docker images (FHIR server, CDS Hooks Sandbox server) after making slight modifications from the original third-party sources. If you wish to see what modifications went into these Docker images, see the notes in the README.md file under the *tools* subdirectory of the repo root.