



Exercises

Test Driven Development II - Advanced

99 - Touchstone TestScript Execution - Connectathon Track

Track lead: Richard Ettema

**Please see Test Driven Development I - Intro – Exercises, Connectathon Track for background information*

FHIR Subscriptions (Second Analysis Example)

http://wiki.hl7.org/index.php?title=201801_FHIR_Subscriptions

Second Test Scenario - REST Hook with payload [snipped]

Action: FHIR Server notifies Subscribing client pushing a FHIR resource to the endpoint in the Subscription resource.

Precondition: Create FHIR Subscription (first scenario)

Success Criteria: FHIR server pushes FHIR payload of relevant resource using REST Hook when the subscribed event occurs.

Bonus point: n/a

Analysis / Re-definition - REST Hook with Payload (Vital Signs/BMI)

Actors

- ❖ Touchstone (T) - Test Platform, default FHIR Client
- ❖ Subscriptions System (SS) - FHIR Server supporting Subscription resource
- ❖ Subscribing Client (SC) - Subscribes to SS and receives notifications/updates

Test Data

- ❖ Subscription static fixture - used to create the Subscription resource instance on (SS)
- ❖ Observation static fixture - matches Subscription criteria for Vital Signs/BMI measurement

Setup

- ❖ Delete any existing Subscription resources that match the new Subscription to be created on (SS)
- ❖ Create the Subscription resource instance on (SS) (*may use first test scenario test steps*)

Test - Create Vital Signs/BMI Observation

Create a new Vital Signs/BMI Observation resource instance on the target Subscriptions System

- ❖ (T) sends Vital Signs/BMI Observation resource to (SS)
 - Operation 'create'
 - HTTP POST [SS Base URL]/Observation
- ❖ (SS) responds with conformant FHIR API success

Test - Send Notification

The Subscriptions System sends the Vital Signs/BMI Observation resource instance to the Subscribing Client's notification endpoint (base URL) as a FHIR update operation

- ❖ (SS) sends Vital Signs/BMI Observation resource to (SC)
 - Operation 'update'
 - HTTP PUT [SC Base URL]/Observation
- ❖ (SC) responds with conformant FHIR API success

Test - Read Observation (optional)

**Only possible if SC Base URL supports Observation read*

Read the updated Observation resource instance on the Subscribing Client to validate the Observation resource has been created and processed correctly

- ❖ (T) sends read request for Observation to (SC)
 - Operation 'read'
 - HTTP GET [SS Base URL]/Observation/{observationResourceId}
- ❖ (SC) responds with conformant FHIR API success and payload of the updated Observation
 - Validate returned Observation contents