March 4, 2015

University of Washington Department of Computer Science and Engineering CSEP 590B, Winter 2015

CSEP 590B, Assignment 9, Due Wednesday, March 11, 6:30 pm

Implement a Facility Assessment form using ODK Collect. Given below is the list of fields that should be in the form:

Name (Text), Date of Assessment (Date Widget), Facility Location (GPS Widget), Staff Quantity (Number), Staff Present during Assessment (Number – should be equal or less than Staff Quantity field), Facility Condition (Multiple Choices: 'Well Kept', 'Moderate', 'Poor'), Facility Picture (Camera Widget)

You will use XLSForm (<u>http://opendatakit.org/use/xlsform/</u>) to design the form. You can find the more detailed documentation on <u>http://xlsform.org/</u>. You would want to read basic format, question types and relevant sections of this documentation. Relevant field will have the condition that controls the logic to skip a question. You can use the same operators in this condition that can be applied on constraint field. A detailed list of operators is mentioned on this page (<u>http://opendatakit.org/help/form-design/binding/</u>).

Once you have the XLSForm ready, you can convert it to xml that will be used by ODK Collect on Android device. One quick way to convert is using a python based tool called pyxform (<u>https://github.com/uw-ictd/pyxform</u>). You can also use an online tool, no setup required, called XForm (<u>http://opendatakit.org/xiframe/</u>). These tools will also verify your form to check for errors. The output you are looking for is an xml file.

After getting the xml file, put that in your Android device after you have installed ODK Collect (<u>http://opendatakit.org/use/collect/</u>). You can install Collect app through Google play store application on the device

(https://play.google.com/store/apps/details?id=org.odk.collect.android). Other way to install the app is by downloading the apk file, which is equivalent of exe file in windows (https://opendatakit.org/downloads/download-info/odk-collect-apk/). After you download, open the file manager app (if not installed, then install ES File Explorer app from play store) and open apk file from download folder. It will install it.

Once you have ODK Collect installed, place the xml file in "/odk/forms" folder in your sdcard. Normally you land directly in sdcard folder when you open file explorer app but if you land on the root folder then there should be a shortcut to sdcard folder or /storage/sdcard0 or /mnt/sdcard. After placing the file, open ODK Collect app and select "Fill Blank Form" to see your form. If your form does not appear then wait for couple of seconds till it goes from "Scanning...." to "Finished Scanning. All forms loaded". This status appears in a small grey line near the top of the app screen.

Hint: You will be filling "choices" sheet for multiple-choice question, "constraint" field in "survey" sheet for condition on the range, and "type" field for widgets (look in sample xlsform file).

Post your questions on the discussion board. Submit the xls and xml files on catalyst by 6:30 PM, Wednesday, March 11, 2015.