CSEP 590B, Assignment 8, Due Wednesday, March 4, 6:30 pm

Implement IMCI Diarrhea using ODK Collect. Given below is the flow that should be followed to create these forms. This flow is coming from Dharma's Assignment 7, one of the nicely done assignments. If your own flow for assignment 7 is similar to this then go ahead and implement that.

Part A: Create a form that will collect the required information for proper treatment. The form for data collection should ask following questions:

1. Does the child have diarrhea?
    1.1. YES -> POSITIVE FOR DIARRHOEA
        1.1.1. Is the diarrhea going on for 14 days or more?
            1.1.1.1. YES -> POSITIVE FOR PERSISTENT DIARRHOEA
            1.1.1.2. NO
    1.2. NO
2. Is the child positive for any two symptoms from the list below? (a) Restless and irritable (b) Drinks eagerly and is thirsty (c) Skin pinch goes very slowly and (d) Sunken eyes
    2.1. YES -> POSITIVE FOR SOME DEHYDRATION
    2.2. NO
3. Is the child positive for any symptoms from the list below? (a) Lethargic or unconscious and (b) Not able to drink or drinking poorly
    3.1. YES -> POSITIVE FOR SEVERE DEHYDRATION
    3.2. NO
4. Does the child have blood in the stools?
    4.1. YES -> POSITIVE FOR DYSENTERY
    4.2. NO
5. Is the child above 2 years of age?
    5.1. YES
    5.2. NO
6. Is there cholera in the area?
    6.1. YES
    6.2. NO
7. Is there any other severe classification?
    7.1. YES
    7.2. NO

You will use XLSForm (http://opendatakit.org/use/xlsform/) to design the form. You can find the more detailed documentation on http://xlsform.org/. 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 (http://opendatakit.org/help/form-design/binding/).

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 (https://github.com/uw-ictd/pyxform). You can also use an online tool, no setup

required, called XForm (http://opendatakit.org/xiframe/). 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 (http://opendatakit.org/use/collect/). 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.

Part B: Extend your form to present treatment recommendations as "note" type questions. These recommendations are based on the input data from part A questions. Guideline for these recommendations are given below:

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IF 3.1 AND 2.1 => Give fluid and zinc supplements
        IF 7.1 => Refer to hospital and ask mother to continue to breastfeed
        IF 5.1 AND 6.1 => give antibiotics
IF 2.1 => Give fluid and zinc supplements
        IF 7.1 => Refer to hospital and ask mother to continue to breastfeed; follow up in 5 days if
                  not improving;
IF 2.2 => take sync supplements; follow up in 5 days if not improving
IF 1.1.1.1 AND (2.1 OR 3.1) => treat dehydration; refer to hospital
IF 1.1.1.1 => advise mother; give multi-vitamins; follow up in 5 days
IF 4.1 => give ciprofloxacin 3 times a day; follow up in 3 days
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Remember that you would be filling "relevant" field against these set of questions.

Post your questions on the discussion board. Submit the xls and xml files on catalyst by 6:30 PM, Wednesday, March 4, 2015.