

Conceiving your survey through XLS form

Terre des hommes regional training







cartong



Terre des hommes

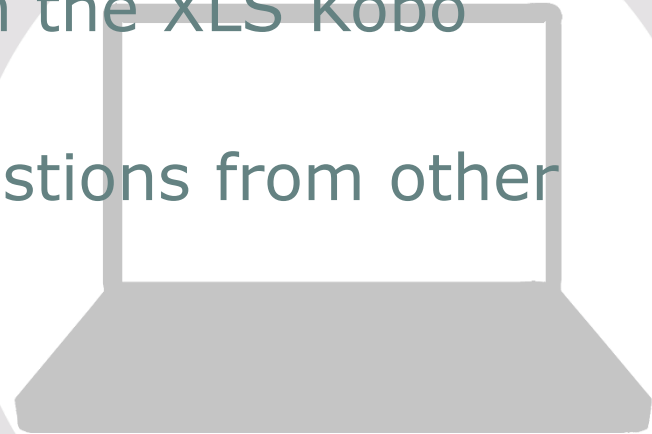
Helping children worldwide.

Design techniques for forms

Tool	Excel (XLS form)	User-friendly tools (ODK Build, KOBO)
User-friendliness		
All The Functions		
Compatible with	KOBO, ONA, SurveyCTO	KOBO, ONA, SurveyCTO

Functions that are hard to set up if you use only Kobo

- ❷ Multi language
- ❷ Importing external lists
- ❷ Cascading lists
- ❷ Advanced settings (appearance)
- ❷ Having common lists of options for different questions
- ❷ Not automatically compatible with the XLS Kobo Analyser tool
- ❷ Easily copy-pasting groups of questions from other forms



Basic XLS form



XLS form coding

- 🕒 The fastest way to code, Excel= well-known tool
- 🕒 Necessitates training



ACU_DYNAMO_116_EN_AR_formhub - Excel

	A	B	C	D	E	F	G	H	
1	type	name	label::English	label::Arabic	hint::English	hint::Arabic	constraint	constraint_message	calculati
2	deviceid	DeviceID							
3	start	TimeStartRecorded							
4	end	TimeEndRecorded							
5	begin_group	Demograph	Demography	الإحصائيات السكانية					
6	integer	DemographInformNumb	How many key informants for this section?	كم عدد مصادر المعلومات في هذه الفقرة			>0	You must have at least one informant to fill this section!	
7	begin repeat	DemographInform	Informants	مصادر المعلومات					
8	select_multiple status	DemographInformStatus	Status/name of the informant	فئة تجمع مصادر المعلومات المستخدمة في هذه الفقرة مثال : المنظمات غير الحكومية الدولية , لجان محلية وكادر وطني					
9	text	DemographInformStatusOther	If other, please specify:	حدد في حال وجود مصادر أخرى					
10	end repeat								
11	select_one evidence	DemographEvidence	Evidence rating	تقييم مصادر المعلومات	Please check the details of the evidence levels on your memo sheet	يرجى مراجعة مستويات التقييم المرفقة			
12	integer	Left	Estimated number of population who have fled the sub-district since the beginning of the conflict	عدد الأشخاص التقريبي الذين نزحوا (من) هذه الناحية منذ بداية الأحداث					
	integer	Arrived	Estimated number of population who have arrived and are staying now in the sub-district	عدد الأشخاص التقريبي للنازحين (إلى) هذه الناحية والمقيمين					

survey choices settings

READY COUNT: 2 100%

Exercise

- 👤 Export your form conceived in Kobo to the XLS format and analyse the different tabs and columns

The screenshot shows the KoBoToolbox interface. On the left, there's a sidebar with a 'NEW' button and a list of project statuses: Deployed (18), Draft (14), and Archived (33). The main area displays a table of 'Deployed' projects. The table has columns for Name, Shared by, Created, Last Modified, and Submissions. A context menu is open for the project 'CP&PSS Schools Assessment test for a job interview', showing options like 'Redeploy this project', 'Replace with XLS', 'Download XLS' (highlighted with a red box), 'Download XML', and 'Archive'.

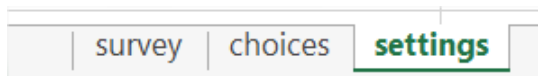
Name	Shared by	Created	Last Modified	Submissions
Test training CartONG Tdh Jordan		Yesterday at 4:38 PM	Yesterday at 4:59 PM	0
Getting to know you		Yesterday at 12:		
CP&PSS Schools Assessment Sheet	ocheminat	August 1, 2017	August 1, 2017	
CP&PSS Schools Assessment test for a job interview This is a test survey created in the context of a recruitment process to th...	laurak	April 10, 2017	April 11, 2017	
Filtering_in_options		April 5, 2017	April 5, 2017	

Structure of an XLS form



3 tabs:

- Survey: type of question, name, label, optional translations, tips and various options
- Choices: possible answers
- Settings: general settings



ACU_DYNAMO_115_EN_AR -

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ADD-INS

J171 : {SchoolPub}>\${SchoolPubFunc} or \${SchoolPriv}>\${SchoolPrivFunc} or \${SchoolJoint}>\${SchoolJointFunc}

	A	B	C	D
1	type	name	label::English	label::Arabic
2	deviceid	DeviceID		
3	start	TimeStartRecorded		
4	end	TimeEndRecorded		
5	begin group	Demograph	Demography	الإحصائيات السكانية
6	integer	DemographInformNumb	How many key informants for this section?	كم عدد مصادر المعلومات في هذه الفترة
7	begin repeat	DemographInform	Informants	
8	select_multiple status	DemographInformStatus	Status/name of the informant	قائمة بجميع مصادر المعلومات المستخدمة في هذه الفترة مثال : المنظمات غير الحكومية الدولية , لجان محلية , كادر طبي
9	text	DemographInformStatusOther	If other, please specify:	حدد في حال وجود مصادر أخرى
10	end repeat			
11	select_one evidence	DemographEvidence	Evidence rating	تقييم مصادر المعلومات
12	integer	Left	Estimated number of population who have fled the sub-district since the beginning of the conflict	عدد الأشخاص الذين نزحوا (من) هذه الناحية منذ بداية الأحداث
13	integer	Arrived	Estimated number of population who have arrived and are staying now in the sub-district since the beginning of the conflict	عدد الأشخاص النازحين (إلى) هذه الناحية حالياً
14	integer	Population	Total population in the subdistrict at this moment	عدد الأشخاص الكلي الحالي في هذه الناحية
15	select_one flee	Flee	If people have fled the sub-district of the last two weeks, to where did they flee?	في حال وجود أشخاص نزحوا من هذه الناحية خلال الشهرين الماضيين, أين كانت وجهتهم
16	text	FleeSpecify	Please specify sub-district/district/governorate:	حدد
17	select_one arrive	ArrivedFrom	If new people arrived during the last two months in this sub-district, where did the majority come from?	في حال وصول أشخاص جدد إلى هذه الناحية خلال الشهرين الماضيين, من أين جاءت الأغلبية العظمى منهم :
18	text	ArrivedSpecify	Please specify sub-district/district/governorate:	حدد
19	integer	DisplacedShelter	How many displaced persons live in collective shelters at this moment?	عدد النازحين في مراكز سكن جماعي
20	integer	DisplacedLocalFam	How many displaced persons are hosted by local families at this moment?	عدد النازحين في مراكز سكن جماعي
21	integer	DisplacedVacatedBuild	How many displaced persons live in vacated buildings at this moment?	عدد النازحين في المباني الخالية
			How many displaced persons live in open spaces	

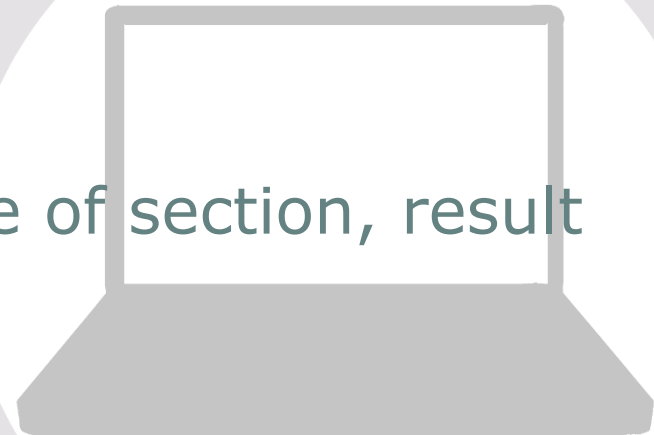
survey choices settings

READY

Type of questions

- 👤 text: simple text
- 👤 integer: integer
- 👤 decimal: decimal
- 👤 select_one listName: select a single option
- 👤 select_multiple listName: select multiple options
- 👤 geopoint: GPS point
- 👤 image: Photo
- 👤 date: Date
- 👤 note: Gives an information (name of section, result of a calculation...)
- 👤 calculate: make a calculation

Listname will be defined in the "options" tab!



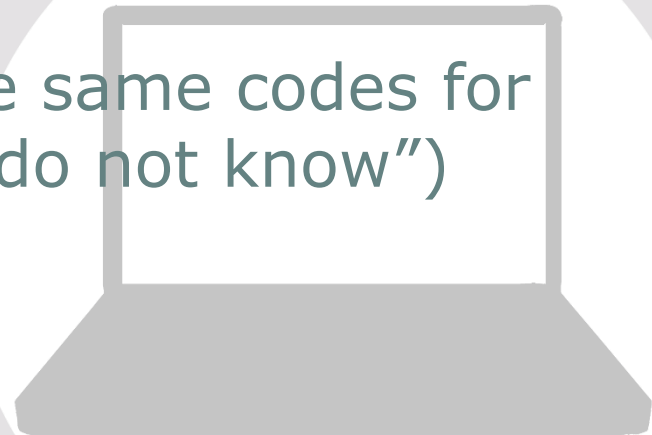
Options: Familiar faces

- ❶ In the “Choices” tab, you can see the different possible answers

list name	name	label::English	label::Arabic
yesno	1	Yes	نعم
yesno	2	No	لا

List name Code of the response Label of the response

- ❷ A list can be reused as many times as necessary in a form
- ❸ Keep the same pattern (ie use the same codes for similar labels such as “other” or “do not know”)



Tips

- ❗ Always check the "settings" tab and customize the form ID: otherwise, it will be taking the name of the file and can generate errors

form_title	form_id	public_key	submission_url	default_language	version
ACU Dynamic Situation Monitoring Report V1.15	ACU-DYNAMO-115			English	115

- ❗ The formatting (color, police, bold/italics etc.) and comments do not impact the output file
- ❗ The order of the columns is not important (except to keep a certain consistency between different forms to facilitate copy-pastes!)



Tips: beauty in simplicity!



Question

A	B	C
type	name	label::English
begin group	I	INTRODUCTION
date	SURVDATE	Date of Interview
select_one camp	CAMP	Tick the camp in which you conduct this survey
integer	SECTION	Section number



Question

type: ensure that the types are correctly spelt correctly and in lower case



Question

name: column name in results

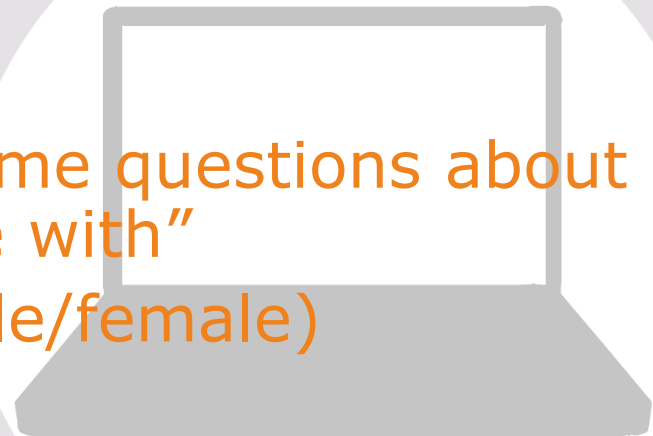
For question name:

- Use a meaningful short name
- Check that the names do not contain special characters, accents or spaces
- Suggestion: Follow a rule (ie: all in uppercase, all in camelcase...)

Exercise: your first XLS form!

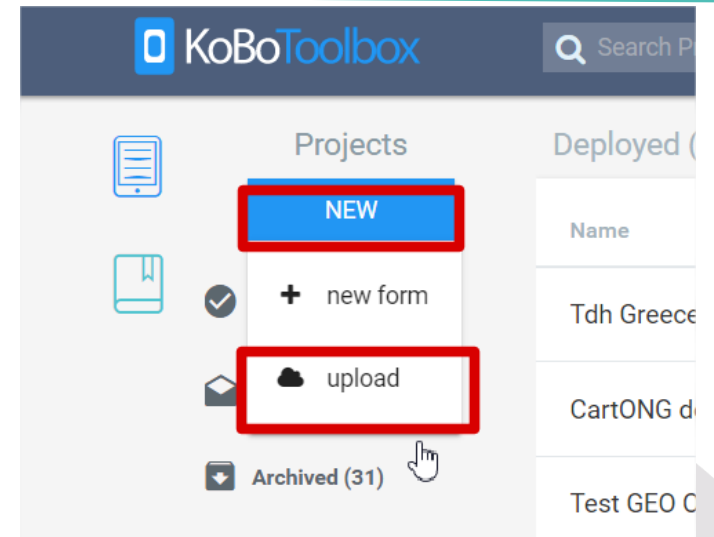


- Open «TdH_training basic form » and set up the following questions in XLS form:
- Interviewer Name
 - This questionnaire is to be administered to all caregivers in the household aged 18 years and above. A separate questionnaire should be used for each eligible caregiver.
 - Household number
 - Date of interview
 - “First I would like to ask you some questions about yourself and the people you live with”
 - D.1. Sex of the respondent (Male/female)
 - D.2. Date of birth



To upload to Kobo

- ❗ Click on « new » and then « upload » to import the form
- ❗ It will then be visible on your phone also
- ❗ If Kobo shows you an error, identify the type of error and correct it in your form
- ❗ If the error mentionned by Kobo is not explicit, you can try testing your form on another website validator:
<http://opendatakit.org/xiframe/>



Constraints

constraint	constraint_message
------------	--------------------


- "Constraints" helps limit the panel of possible answers on a field (for example, the age specified must be between 0 and 18 years)
- Can be linked to a number `".>0"` or a variable previously used `".<${HHSIZE}"` or for example to set a maximum number of choices for a multiple selection: ex. `Count-selected(.)<3,`
- "Constraint message": the message that appears to explain the constraint to the enumerator

The "." before the operator is a shortcut to the variable of that line (you could put "\${variable}" instead)

The screenshot shows a mobile application interface. At the top, the title bar says 'Global WASH K...'. Below it, the section is 'B. WATER COLLECTION AND STORAGE'. The specific question is 'B.3. How many containers do you have to COLLECT or STORE drinking water for your house?'. The user has entered '-2'. A message box states: 'The number you have typed is outside the expected range (0-10)'. Below the message is a numeric keypad with digits 1-9, 0, and symbols for backspace, undo, and settings. To the right of the keypad is a list of operators: >, <, >=, <=, =, and !=.

hint

A	B	C	D
type	name	label::English	hint::English
select_one source	ASource_1	B.1.a. What is the principal source of drinking water for members of your household?	DO NOT PROMPT; CONSIDER DRINKING WATER ONLY

 A « hint » is an extra information you want to give beyond the question label. It can be a definition or an instruction for example

B. WATER COLLECTION AND STORAGE

B.1.a. What is the principal source of drinking water for members of your household?

DO NOT PROMPT; CONSIDER DRINKING WATER ONLY

- ☐ Piped connection to house (or neighbour's)
- ☐ Public tap/standpipe
- ☐ Handpumps/boreholes
- ☐ Protected spring
- ☐ Rain water collection
- ☐ Unprotected spring
- ☐ Unprotected hand-dug well
- ☐ Water seller/kiosks
- ☐ Tanker truck
- ☐ Bottled water, water sachets
- ☐ Surface water (lake, pond, dam, river)

Relevant

relevant

- 👤 "Relevant" specifies the conditions that need to be met to display a question (skip patterns)
- 👤 Should be based on previous answers
 - An option chosen: `selected({HHCONSENT}, '1')`
 - A numeric value entered: `${XAgeCalc}>=6` and `${XAgeCalc}<60`
 - Two different questions `${MUAC}<12.5` or `selected({EDEMA}, 'y')`

Example of Operators:
`selected({VariableID}, OptionID)`
`${VariableID}>number` or `${VariableID}`
 You can use "and" or "or" depending on the conditions

Required

required ▼

- ❶ "Required" defines when a question is mandatory. Specify "yes" (or "TRUE") or otherwise leave empty
- ❷ Suggestion: add them after having tested your form fully to gain time in testing!

Global WASH K... 70% 08:34

E. SANITATION

E.16. Please show me the facility where you and your family members bathe. OBSERVATION: Do they have a designated bathing facility?

OBSERVE AND RECORD THE ANSWER.

☐ Do not have a designated bathing facility

☒ Sorry, this response is required!

☐ Don't know or can't observe

Exercise: your first XLS form!

- ❶ Add what constraints seem relevant to you to your previous questions as well as the mandatory aspect
- ❷ Add the following questions to your form with associated skip pattern:
 - D.4. Have you ever attended school? (Yes/No)
 - D.5. What is the highest level of school you completed? (Pre-primary, Some primary education, Primary education completed, Some secondary education, Secondary education completed, Higher education, None)
- ❸ Update and redeploy your form- download and test it on the smartphone

Languages

- 👤 To add a language, all you need to do is add the relevant columns in the Survey and Choices tab, like below:

- 👤 Survey tab:

type	name	label::English	hint::English	label::Français	hint::Français
select_one source	ASource_1	B.1.a. What is the principal source of drinking water for members of your household?	DO NOT PROMPT; CONSIDER DRINKING WATER ONLY	B.1.a. Quelle est la source principale d'eau potable pour les membres du ménage?	NE PAS LISTER LES RÉPONSES. CONSIDÉREZ UNIQUEMENT L'EAU POTABLE.

- 👤 Choices Tab:

list name	name	label::English	label::Français
washhandstime	1	Before eating	Avant de manger
washhandstime	2	Before cooking/meal preparation	Avant de préparer les aliments

Groups (1/2)



A group can be used to:

- display questions on the same page
- Have a section title that will be displayed at the top of a screen to guide the enumerator
- Define a specific setting for a group of questions (ex: skip pattern etc.)
- Facilitate the analysis by having questions regrouped

The screenshot shows a mobile application interface for the FACET tool. At the top, there's a status bar with icons for signal, Wi-Fi, and battery (31%), and the time 19:17. Below that is a header bar with a clipboard icon, the text 'FACET tool Td...', and icons for a document, a link, and a menu. The main content area shows a breadcrumb trail: '1 General Information / Preliminary Questions > General Information'. Below this is a section titled 'STAFF' with a note: 'Please enter "9999" for "Don't know" and "0" for none'. There are two question blocks, each with a title, a description, and a text input field. The first block is 'GI.10. Number of male staff' with the description 'Total number of male staff members active in the center, including doctors, nurses, paramedics, pharmacists, assistants, cleaners, etc.' and an empty text field. The second block is 'GI.11. Number of female staff' with the description 'Total number of female staff members active in the center, including doctors, nurses, paramedics, pharmacists, assistants, cleaners, etc.' and an empty text field.

1 General Information / Preliminary Questions
> General Information

STAFF
Please enter "9999" for "Don't know" and "0" for none

GI.10. Number of male staff
Total number of male staff members active in the center, including doctors, nurses, paramedics, pharmacists, assistants, cleaners, etc.

GI.11. Number of female staff
Total number of female staff members active in the center, including doctors, nurses, paramedics, pharmacists, assistants, cleaners, etc.

Groups (2/2)


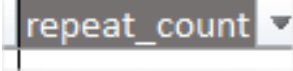
Method for grouping your questions:

- Add a “begin group” question type with the name and (optionally) the label which will appear at the top of the page
- Integrate the questions
- Finish with an “end group” question type (you can leave the name and the wording empty)

You can create as many groups and under-groups as you want

begin group	DIARRHEA OPT	DIARRHEA- OPTIONAL	selected({WSCONST},'1') and selected({OPTSELECT},'10')
integer	NBLESSFIVEDIARRHEA	1- How many children less than 5 years of age have had 3 or more loose or watery stools in the in the last 14 days?	
integer	NBMOREFIVEDIARRHEA	2- How many persons 5 years of age or older have had 3 or more loose or watery stools in the in the last 14 days?	
end group			

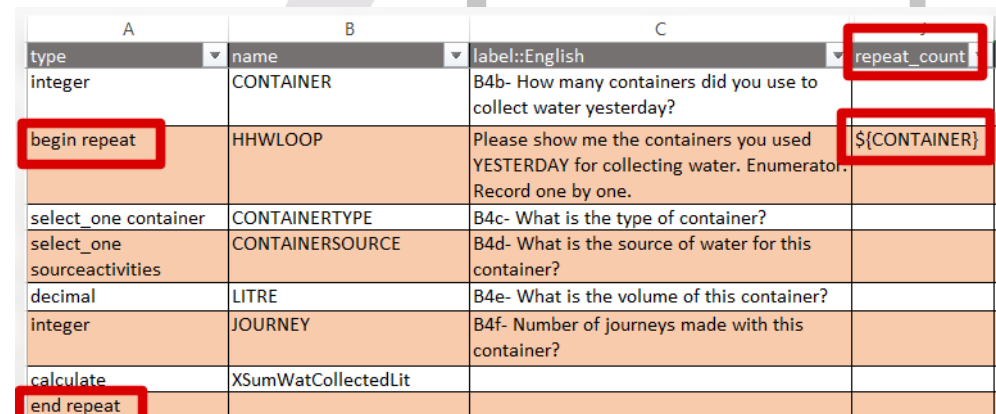
Loops

 A loop (linked to the  column, corresponds to the repetition of a number of questions (ie: for all the children of a HH...):

- Add a “begin repeat” question type with the name and (optionally) the label which will appear at the top of the page
- Integrate the questions
- Finish with an “end repeat” question type (you can leave the name and the wording empty)

 The repetition can be:

- Without limitation (the question will be asked as many time as the enumerator wants)
- Based on a fixed number (“3”)
- Based on the answer to a previous question “\${HHSIZE}”



A	B	C	repeat_count
type	name	label::English	
integer	CONTAINER	B4b- How many containers did you use to collect water yesterday?	
begin repeat	HHWLOOP	Please show me the containers you used YESTERDAY for collecting water. Enumerator. Record one by one.	3
select_one container	CONTAINERTYPE	B4c- What is the type of container?	
select_one sourceactivities	CONTAINERSOURCE	B4d- What is the source of water for this container?	
decimal	LITRE	B4e- What is the volume of this container?	
integer	JOURNEY	B4f- Number of journeys made with this container?	
calculate	XSumWatCollectedLit		
end repeat			

Referring to a variable in a question label

- You can refer to a question result in a further question if you wish

type	name	label::English
text	nameBoy	What is the name of the boy?
integer	ageBoy	What is the age of \${nameBoy}?

Beware of using this aspect for select_one or select_multiple however, as only the name of the option and not the label will be shown (although advanced workarounds exist)

The image shows two overlapping screenshots of a mobile application interface. The top screenshot displays a form titled 'Test form Training Gre...' with a question 'Name and age of boys (1)' and 'What is the name of the boy?'. The answer 'Leonard' is entered in the text field. The bottom screenshot shows the same form with the question 'What is the age of Leonard?'. A numeric keypad is visible, indicating the user is entering the age. The variable 'Leonard' is used in the question label, demonstrating how a previous question's result can be referenced in a subsequent question.

Exercise: Now you are experts...

- ❶ Put the questions of section D in a group with associate title “Demographic and HH information”
- ❷ Add a question on the number of boys under 18
- ❸ Add:
 - a loop asking for each boy his name and age, that will be repeated as often as there are boys under 18 in the HH
 - a loop asking for each girl her name and age, that can be repeated indefinitely until the enumerator has covered all the girls

Appearance



Use the **appearance** dropdown menu



Useful options:

- `minimal` → to have a drop down list box instead of radio buttons/check boxes
- `no-calendar` → to have a user-friendly date
- `field-list` → to view several questions on one screen : it must be embedded in a group with “`field_list`” as appearance
- `quick` → Auto-advances to the next question after answer (only for a `select_one` type of question)
- `likert` → Best if used with web clients, makes the answer choices appear as a Likert scale.

You cannot make a question appear if it depends on the answer to a question supposed to be on the same page

type	name	label::English	appearance
begin group	PAY		field-list
note	XPAYFORWATER	How much do you pay for your drinking water?	
integer	AMOUNT	4b- Amount	
select_one currency	CURRENCY	4c- Currency	
select_one frequency	FREQUENCY	4d- Frequency (how often do you need to pay that price?)	
end group			

Electronic Signature

- ❧ You have the possibility to integrate an electronic signature in your form by adding a « signature » appearance to a « image » type question:

Can be useful for donor audit!!

ODK Collect > Fiche 2...

Par cette signature, j'atteste accepter les conditions ci-dessus.

Obtenir une signature

[Handwritten signature]

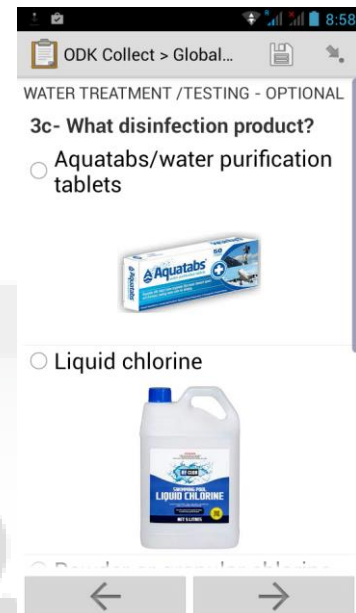
[Navigation arrows]

[QWERTY keyboard overlay]

type	name	label::Français	appearance
image	Signature	Par cette signature, j'atteste accepter les conditions ci-dessus.	signature

View images in place of the terms

- ❶ If you want to view photos corresponding to your terms, it is sufficient to create a single choice question or multiple and add a column « media::image" with the reference of this photo in the tab " Choices "As below. Made in kind of the compress to maximum.
- ❷ In the settings of your survey (part "projects"), made " Add Document" by selecting the file in question



list name	name	label::English	media::image
typedisinfectant		1 Aquatabs/water purification tablets	aquatab.jpg
typedisinfectant		2 Liquid chlorine	liquidchlorine.jpg
typedisinfectant		3 Powder or granular chlorine	powderchlorine.jpg
typedisinfectant		4 PuR or Watermaker sachets	PUR.jpg
typefilter		1 Biosand Filter	biosand.jpg
typefilter		2 Ceramic Pot Filter	ceramicpot.jpg
typefilter		3 Candle Filter/Bucket Filter	candlefilter.jpg

Grid theme



The « grid theme » is a way of presenting information in web forms (be it on a computer or on large tablets) that resemble the way it would look like in a word document.



To use it add the value '*theme-grid*' on the settings tab of your XLSForm in a 'style' column.



More information here: <https://blog.enketo.org/gorg-eous-grid/>, with detail here: <https://enke.to/::grid> and the relevant XLS here: <https://docs.google.com/spreadsheets/d/1qKmxPTA4B0vIhU6GsKgi1CJE2Db2FfE7KZpOig4nTEI/edit#gid=0>

Fatal injury surveillance data collection form (short version)

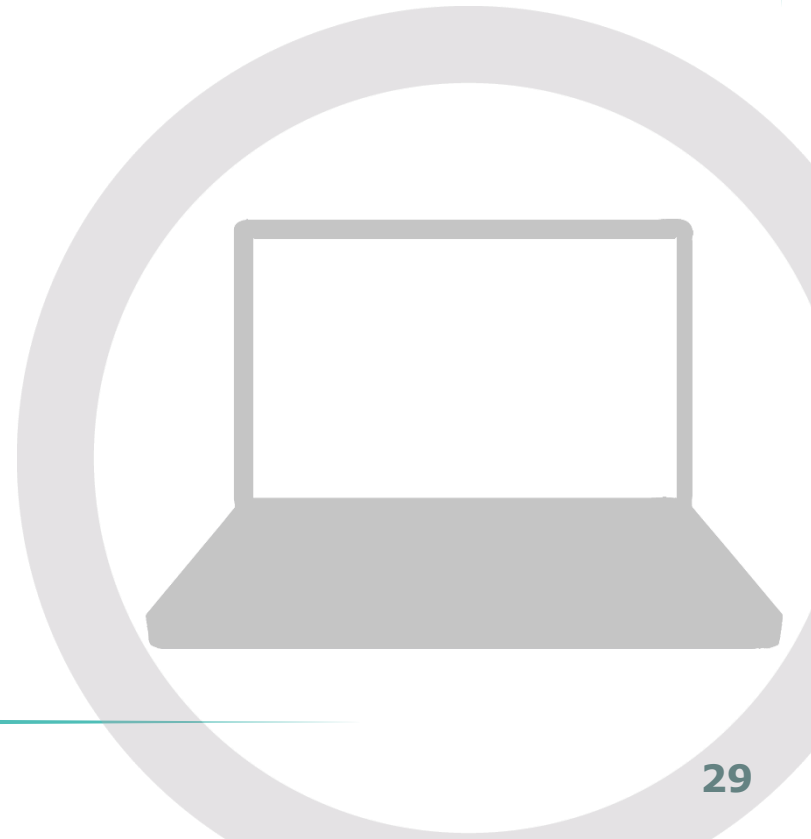
1

1.1 FACILITY NAME		
1.2 FACILITY TYPE <input type="radio"/> Mortuary <input type="radio"/> Hospital / Health facility		1.3 CASE IDENTIFICATION NUMBER
1.4 POSTMORTEM EXAM DATE yyyy-mm-dd		1.5 INTERNAL AUTOPSY PERFORMED? <input type="radio"/> Yes <input type="radio"/> No
1.6 DECEASED AGE	SELECT AGE UNIT <input type="radio"/> Years <input type="radio"/> Months (If < 2 yr) <input type="radio"/> Unknown	1.7 DECEASED SEX <input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unknown

	A	B	C
1	title	id_string	style
2	Grid Theme Form		theme-grid
3			
4			
5			
+ ≡ survey choices settings			

Exercise: Now you are experts...

- 👤 Add the appearance parameters that seem relevant to you
- 👤 Add an electronic signature



Advanced XLS form



Calculations

- This is to perform a numerical calculation (taking into account the responses to other questions for example)

calculate		BuildTotal			=100		S(BuildNoDamage) + S(BuildSlightDamage) + S(BuildModerDamage) + S(BuildHeavyDamage) + S(BuildDestroy)
119	note	XBuildTotal	المجموع	Total		Total must be equal to 100%	S(BuildTotal)

- Ex: $\${VariableA} + \${VariableB}$
 $\${VariableA} \text{ Div } 2$
 $\text{sum}(\${VariableA}) \rightarrow \text{Total values for VariableA}$
in a repeat loop
 $\text{position}(\${VariableA}) \rightarrow \text{Position In A Group}$
 $\text{round}(\text{Calculation_formula}, 0) \rightarrow 0 \text{ is the number of decimals for the "round"}$

- Reminder: the result is invisible to the enumerator, but you can then display it by a "note" type of question

Operators:

+
 -
 *
 div
 sum()
 position()
 round()
 if

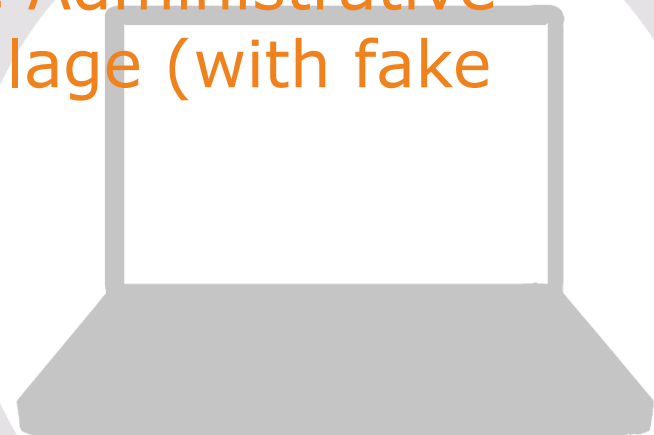
Age calculation

- ❶ An age calculation is very useful but can be very tricky if you do not know the syntax
- ❷ The syntax to calculate the precise age in months is the following: $(\text{int}((\{\text{surveyData}\} - \{\text{birthdate}\}) \div 30.4375 * 100 + 0.5)) \div 100$
- ❸ Where:
 - « surveyDate » is the variable asking for date of the survey
 - « birthdate » is the date of birth

The "+0,5" is necessary as otherwise the age is not rounded but cut in the OpenRosa syntax

Exercise: And a calculation...

- 👤 We would like to know:
 - how many children there are in the HH, using a calculation (and make the calculation appear in a note)
 - The age class of each child (under 5, above 5) - and add it to a note also
- 👤 Add three questions to define the Administrative information: Region / district / village (with fake data in the list of options)



"If" logic

- ❶ Possibility to build a conditional calculation
- ❷ Logic: `if(condition,X,Y) →`
if "condition" is true, the result is "X" and otherwise it is "Y" (remove ", 2" if this is not necessary)
- ❸ Example of calculation associated for the variablea :
`if(${variableb}= 1,2,3) →` if the variableb has the value 1, then variablea=2, if not, variablea=3
- ❹ You can include the following operators/expressions : `> < >= <= selected()` etc.
- ❺ Example : `if(${LNTBRAND}>=8,0,1)`
- ❻ All the operators and examples here: <http://opendatakit.org/help/form-design/binding>

Cascading lists

❶ "Choice filters": defines the list of options that appear depending on the answer to a previous question

❷ Used most of all for administrative levels.

❸ In the Survey tab:

type	name	label::English	choice_filter
select_one admin1	A_admin1	Region:	
select_one admin2	A_admin2	District:	admin=\${A_admin1}
text	A_admin3	Village:	

❹ In the « choices » tab

list name	name	label::English	admin
admin1	conakry	Conakry	
admin1	kindia	Kindia	
admin2	conakry	Conakry	conakry
admin2	coyah	Coyah	kindia
admin2	dubreka	Dubréka	kindia
admin2	forecariah	Forécariah	kindia
admin2	kindia	Kindia	kindia
admin2	telimele	Télimélé	kindia

Exercise: Images and COMPARE questions

- ❏ Add the following questions in a group visible on the same page:
 - Do you like the education activities of the CFS?
 - Do you like the recreational activities of the CFS?
 - Do you like the cultural activities of the CFS?
- ❏ Variable names: make them share a common root name (e.g. : « cfs ») and then add a different suffix for each starting with « _ », in UPPERCASE text.
- ❏ Add a « phantom » question as the first question of the group that has :
 - The same « type » as the other questions of the group;
 - A variable name called CFS without a suffix;
 - A generic « label » to this question such as "Do you like?"
 - A « relevant » column in which there is an impossible value (e.g « 1=2 » or « false »).
- ❏ Add smileys to your questions instead of the text

Automatic naming

- ❶ if you want to have an automatic naming of your submissions,
- ❷ Add an « instance_name » column to your settings tab, that you can fill with a concatenate function (like below), linking with different variable names of your survey.

instance_name

```
concat('WS_',{SURVDATE},'T',{TEAM},'HH',{HH})
```

ODK Collect > Niger S...

Vous êtes à la fin de "Niger SENS WASH Questionnaire V0.2-XLS".

WASH_HH3

☒ Marquer le formulaire comme finalisé

Sauvegarder et Sortir

← →

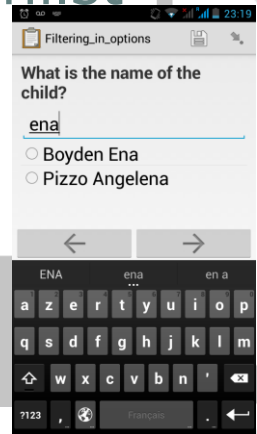
A stylized, light gray globe graphic is positioned on the left side of the slide. It shows the continents of North and South America in a darker gray shade. The globe is partially cut off by the left edge of the frame.

Import External Data

What are external lists?

- ❏ External lists mean that you can call on an external file for option lists without having to redeploy a new version of your project
- ❏ This can be useful:
 - As the versioning of a project once it is already deployed is not very stable in Kobo today
 - To update a long list of villages or beneficiaries which can be easily copy-pasted in a CSV document whilst updating them in Kobo can be complicated
 - Offers more possibilities for some functions (search function amongst a list etc)
 - Can help you integrate in your MDC database information you have already have without reasking it

NB: External lists do not to this day work with webforms (Enketo) they only work on the mobile applications!



Import lists from external files

- ❶ Create a CSV file with your external list.
- ❷ In your form, adapt your variables and choice lists to the one below
- ❸ (see following slide for preload explanation)

1	list name	name	label::English
2	region	regionid	region
3	village	villageid	village
4	waterpoint	waterpointid	waterpoint

1	type	name	label::English	appearance
2	select_one region	region	Select the region	search('preload')
3	select_one village	village	Select the village	search('preload', 'matches', 'regionid', \${region})
4	select_one waterpoint	waterpoint	Select the waterpoint	search('preload', 'matches', 'villageid', \${village})

- ❹ In Kobo, Add the CSV through " Add Document "

preLoad.csv - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW

G15

	A	B	C	D	E	F	G
1	region	regionid	village	villageid	waterpoint	waterpointid	
2	Region 1	1	Village 1	1	WP 1	1	
3	Region 1	1	Village 1	1	WP 2		2
4	Region 1	1	Village 2	2	WP 3		3
5	Region 1	1	Village 3	3	WP 4		4
6	Region 1	1	Village 3	3	WP 5		5
7	Region 1	1	Village 3	3	WP 6		6
8	Region 2	2	Village 1	1	WP 7		7
9	Region 2	2	Village 1	1	WP 8		8
10	Region 2	2	Village 2	2	WP 9		9
11	Region 2	2	Village 3	3	WP 10		10
12	Region 2	2	Village 3	3	WP 11		11
13	Region 2	2	Village 3	3	WP 12		12
14	Region 2	2	Village 3	3	WP 13		13
15	Region 2	2	Village 3	3	WP 14		14
16							

preLoad

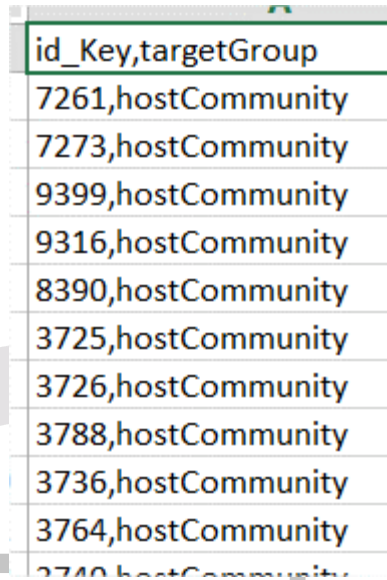
Detail of the « preload" function

- ❏ All components of the "preload" function make reference to the file CSV in which the data to import is stored.
 - "**preLoad**" is the name of the file to import
 - "**regionid**" is the filter on which the search for the correct village will be based
 - \$ {**region**} is the name of the variable in the XLS form to which the « regionid » must correspond

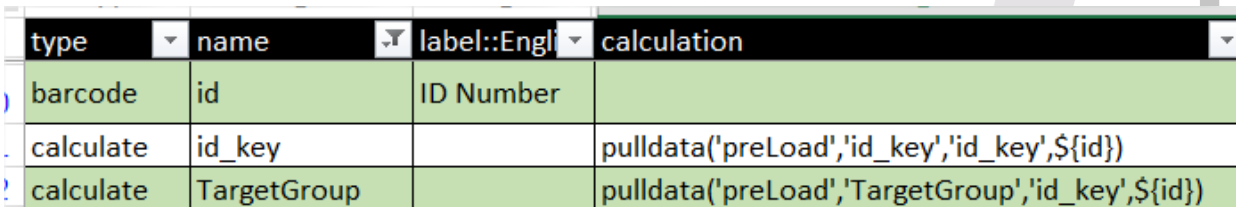
	A	B	C	J	C
1	type	name	label::English	appearance	
2	select_one region	region	Select the region	search('preload')	
3	select_one village	village	Select the village	search('preload', 'matches', 'regionid', \${region})	

Import External Data

- ❶ Create a CSV file (saved in comma separation mode from Excel) with external data that interest you. In a single column, separated by commas, specify the ID and all the other information of interest to you
- ❷ In your form,
 - add an ID to enter manually, via a list or Barcode
 - use a calculate question for every information you want to add your database by using the « pulldata » function (see following slide)
 - add a note to show the results if needs be



id_Key	targetGroup
7261	hostCommunity
7273	hostCommunity
9399	hostCommunity
9316	hostCommunity
8390	hostCommunity
3725	hostCommunity
3726	hostCommunity
3788	hostCommunity
3736	hostCommunity
3764	hostCommunity
3740	hostCommunity



type	name	label::Engl	calculation
barcode	id	ID Number	
calculate	id_key		pulldata('preLoad','id_key','id_key',{id})
calculate	TargetGroup		pulldata('preLoad','TargetGroup','id_key',{id})

- ❸ In Kobo, Add the CSV through " Add Document "



+ Add Document

Detail of the "pulldata" function

❶ The syntax of the function pulldata is the following:
'preLoad', 'targetGroup ', 'id_Key', \$
{targetGroup}

- All make reference to the file CSV in which the data to import is stored.
- "**preLoad**" is the name of the file to import
- "**targetGroup**" is the information one wants to import
- "**id_Key**" is the name of the column in the CSV

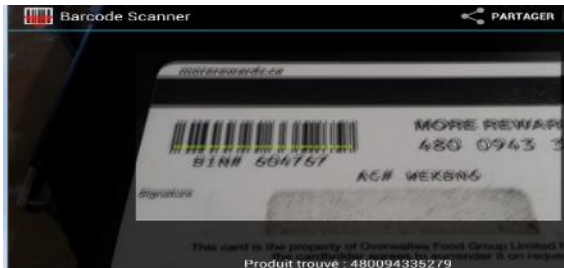
type	name	label::Engl	calculation
barcode	id	ID Number	
calculate	id_key		pulldata('preLoad','id_key','id_key',{id})
calculate	TargetGroup		pulldata('preLoad','TargetGroup','id_key',{id})

id_Key,targetGroup
7261,hostCommunity
7273,hostCommunity
9399,hostCommunity
9316,hostCommunity
8390,hostCommunity
3725,hostCommunity
3726,hostCommunity
3788,hostCommunity
3736,hostCommunity

in which the unique ID is specified

Barcode

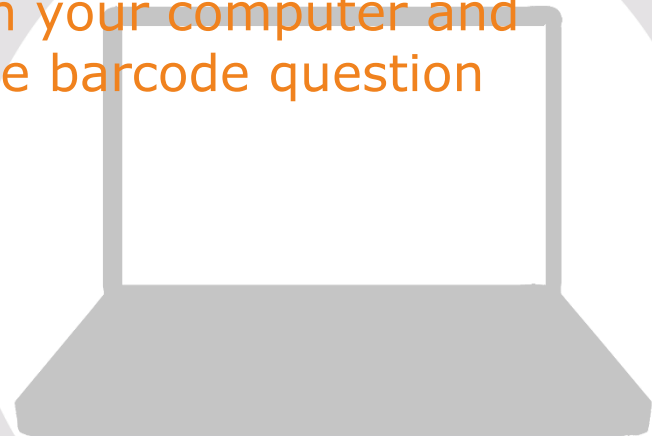
- It is possible, to avoid entry errors and reduce the information to enter during a follow-up visit of an infrastructure or different data collection related to the same element, to scan a barcode rather than enter a unique ID manually
- It is therefore necessary to have a file generating barcodes



	E	F
1		CASE DE SANTE:
2	code	Code bar à scanner
3	'SANE1'	
4	'SANE2'	

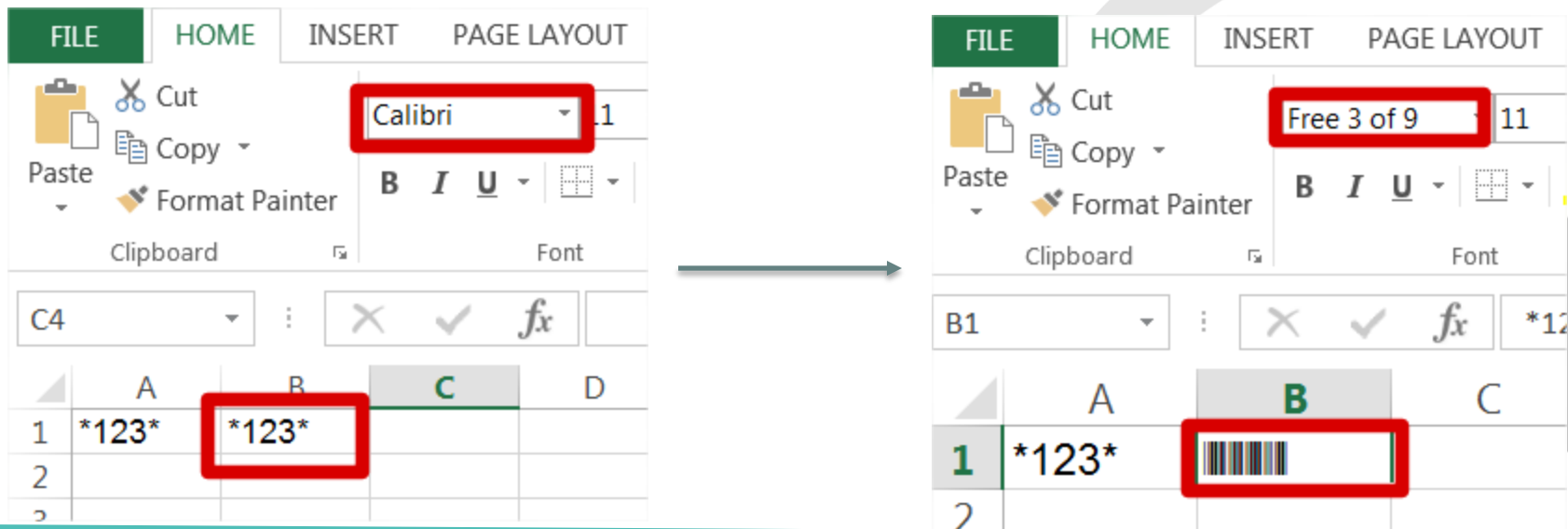
Exercise

- ❶ Download the « MDC- Projets Tdh\0 - Good examples to learn\GeOnG advanced XLS tips & tricks\barcode” folder
- ❷ Import the “barcode” XLS form to Kobo
- ❸ In your Kobo, add the “preload” document and redeploy your project
- ❹ On your phone download through the playstore a “barcode scanner” type app
- ❺ Open your barcode form in ODK and fill it in
- ❻ Open the “Barcode HH sheet” document on your computer and scan the barcode there when you get to the barcode question

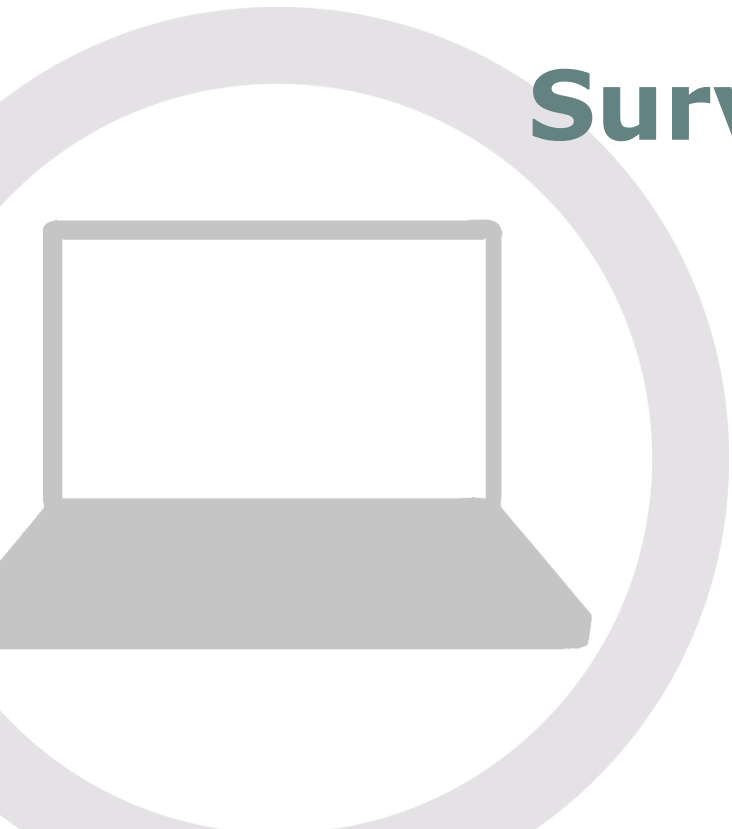


Creating a Barcode

- ❶ Download a new font through internet (for example here: <http://www.barcodesinc.com/free-barcode-font/>) which corresponds to a barcode: "Free 3 of 9" for example, and install in Windows / Fonts folder, normally on disk C: /
- ❷ In Excel create your unique ID that will become a Barcode. Make sure you start and end it with a "*", example *HH1000*
- ❸ Then, change the font in the cell to the new font you have downloaded and enlarge the result if necessary



Survey life cycle



Begin a new questionnaire

1. Determine how to organise your survey (single form, multiple forms, etc.)
2. Prepare your form (in XLS Or Kobo)

1	type	name	label::Arabic	label::English
5	begin group	Demograph	الإحصائيات السكانية	Demography
6	integer	DemographInformNumb	كم عدد مصادر المعلومات في هذه الفقرة	How many key informants for this section?
7	begin repeat	DemographInform	مصادر المعلومات	Informants
8	select_multiple status	DemographInformStatus	قائمة بجميع مصادر المعلومات المستخدمة في هذه الفترة مثال : المنظمات غير الحكومية الدولية , لجان محلية , كادر طبي	Status/name of the informant

3. In the XLS, make sure you clarify the name & ID



Begin a new questionnaire

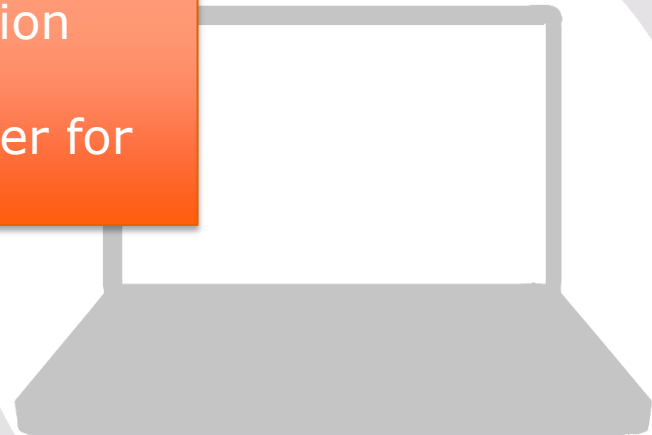
5. Then test it on the phones:
 - Have you checked that all the skip patterns function?
 - Have you tested all the constraints ?
 - And the calculations? If you have not coded them to appear on the screen, check in the results on the server that they function
5. When the tests are complete and that you are satisfied with the results that you have downloaded and tested your analysis on, you can adapt the sharing settings



Begin a new questionnaire

9. Your form is now ready to be deployed, you can tell the enumerators that they can connect to the site on ODK to download the form
10. You can also plan to have a first test version deployed that the enumerators will give feedback on before finalising a version

Always keep the last version
of your XLS
form locally on your computer for
safekeeping



To update a questionnaire

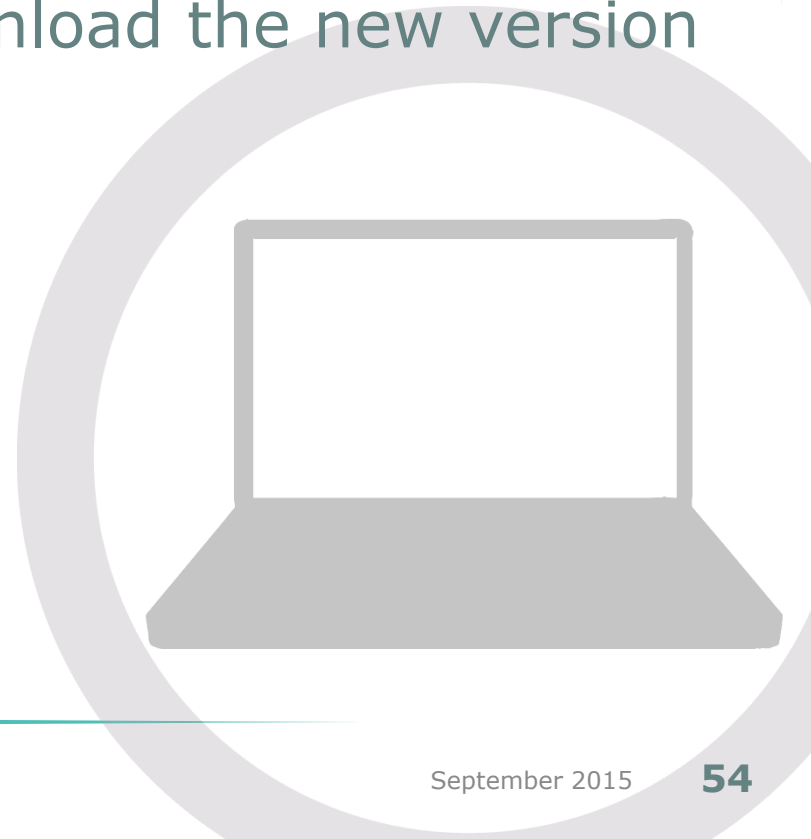
You will sometimes need to change elements in a form already under use

1. Start by changing nothing !
2. Duplicate your project (reimport it under a different name for example), add a couple of submissions, and then make the associated modifications and create some new submissions. Test thoroughly to see if the changes in the database (results) are what you expected
3. If you are satisfied with the test modification you made, apply it to your own deployed project

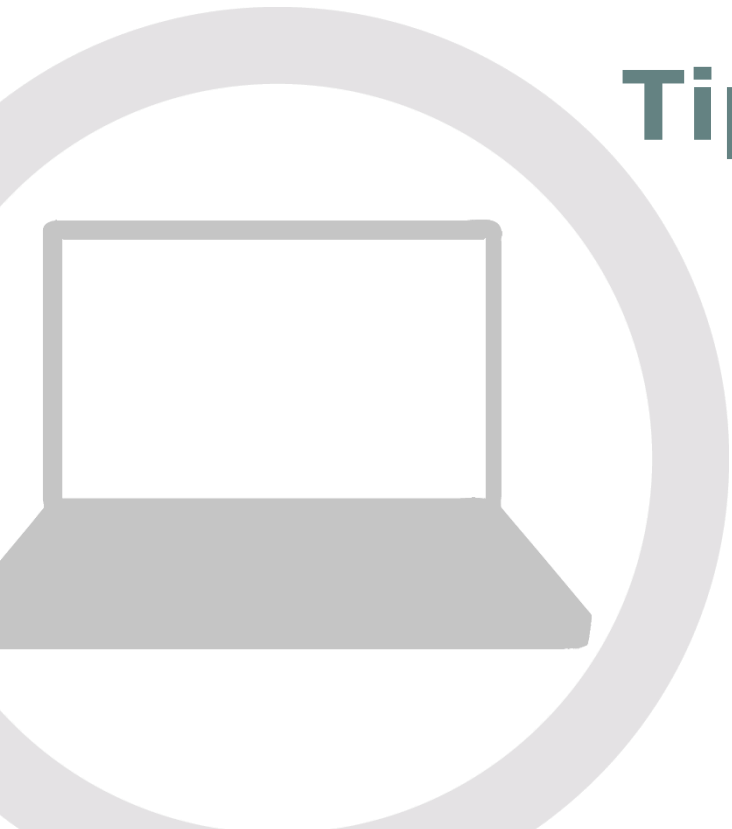
Adding a question or an option is an easy change –however, if you want to delete a question or modify the type of question or an option, be extremely careful and test extensively as otherwise you may lose data or else corrupt your database!!

To update a questionnaire

4. Ask your enumerators to sent all remaining submissions to Kobo and to delete the old version of the form
5. Redeploy your new form
6. Ask your enumerators to download the new version



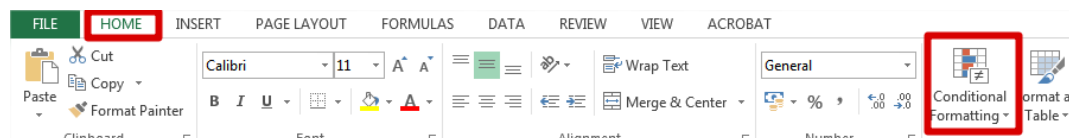
Tips & Tricks



Tips and Tricks (1/4)

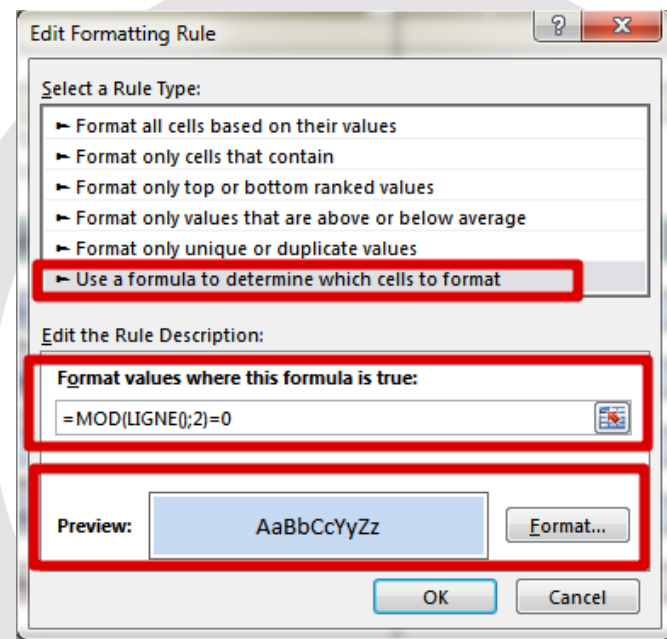
Don't hesitate to use conditional formatting to facilitate readability of form:

- Select the section in the form,
- Go to "conditional formatting" in the "home" menu
- Create a new rule with the formula below and an associated color



The screenshot shows the Microsoft Excel ribbon with the 'HOME' tab selected. The 'Conditional Formatting' button in the 'Styles' group is highlighted with a red box. Below the ribbon, a table is visible with columns A, B, and C. The table contains various form fields and their corresponding labels. The 'begin group' row is highlighted with a blue background, indicating it is selected.

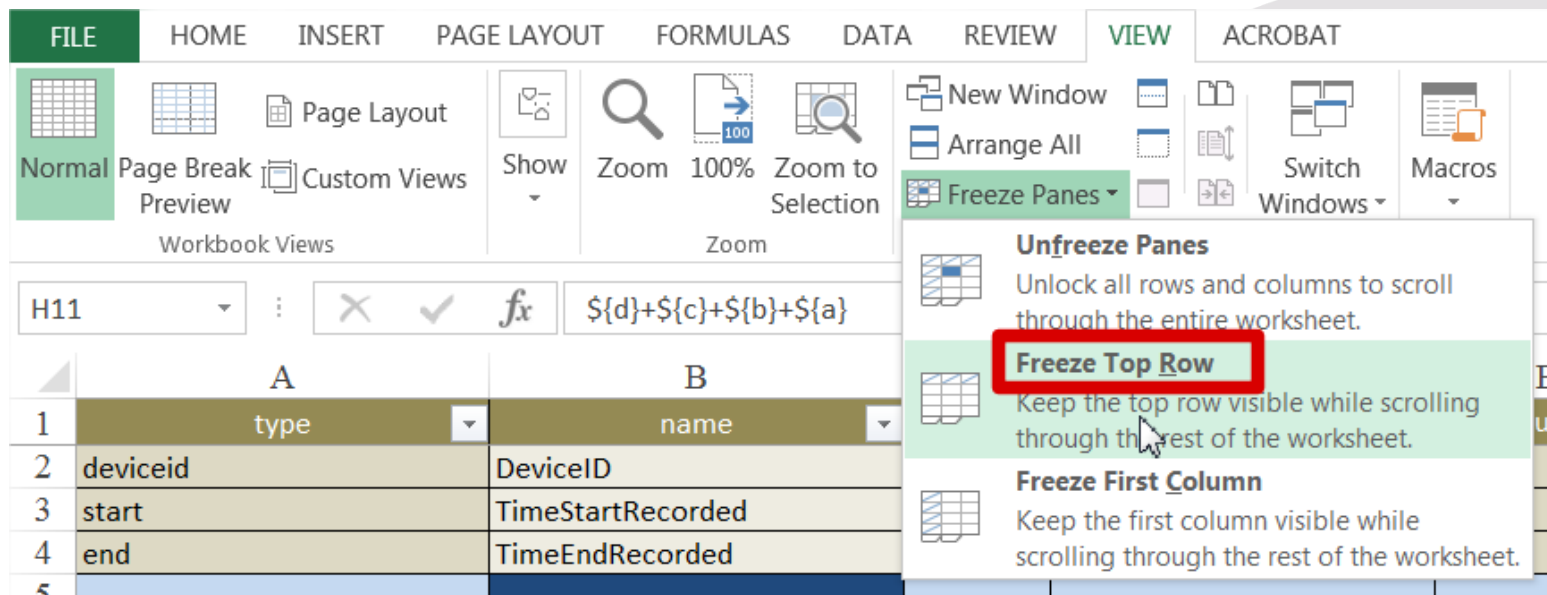
	A	B	C
1	type	name	label::English
2	deviceid	DeviceID	
3	start	TimeStartRecorded	
4	end	TimeEndRecorded	
5	note	XCHILD	THIS QUESTIONNAIRE IS FOR ALL CARETAKERS OF A CHILD THAT LIVES WITH THEM AND IS BETWEEN 0 AND 59 MONTHS OF AGE
6	begin group	A	A. CONTEXTUAL INFORMATION
7	begin group	AI	
8	integer	GeoAnganwadiCenterCode	A1 What is the Anganwadi Center Code?
9	text	GeoGramPanchayat	A2 What is the Gram Panchayat?
10	integer	GeoVillageCode	A3 What is the village code?
11	integer	GeoHouseholdNo	A4 What is the household number?
12	end group		
13	integer	IDChildNo	A5 What is the child number?
14	date	IDSURVDATE	A6 What is the date of screening?
15	end group		



The screenshot shows the 'Edit Formatting Rule' dialog box. The 'Select a Rule Type' section has 'Use a formula to determine which cells to format' selected and highlighted with a red box. The 'Edit the Rule Description' section shows the formula '=MOD(LIGNE();2)=0' entered in the 'Format values where this formula is true:' field. The 'Preview' section shows a sample of the formatted text 'AaBbCcYyZz'.

Tips and Tricks (2/4)

- Do not hesitate also to freeze Panes to see the first line all the time (and the first two columns)



The screenshot shows the Microsoft Excel interface with the 'VIEW' tab selected. The 'Freeze Panes' dropdown menu is open, showing three options: 'Unfreeze Panes', 'Freeze Top Row', and 'Freeze First Column'. The 'Freeze Top Row' option is highlighted with a red rectangle. The background shows a worksheet with columns A and B, and rows 1 through 5. The formula bar shows the formula $\$ \{d\} + \$ \{c\} + \$ \{b\} + \$ \{a\}$.

	A	B
1	type	name
2	deviceid	DeviceID
3	start	TimeStartRecorded
4	end	TimeEndRecorded
5		

Freeze Top Row
Keep the top row visible while scrolling through the rest of the worksheet.

Useful Links

- ❶ The support site for Kobo:
 - [Http: //support.kobotoolbox.org/](http://support.kobotoolbox.org/)
- ❷ The site of XLS Forms :
 - [Http: //xlsform.org/](http://xlsform.org/)
- ❸ The Kobo Google Group :
 - [https: //groups.google.com/forum/#!Forum/kobo-users](https://groups.google.com/forum/#!Forum/kobo-users)
- ❹ The Humanitarian Response site, linked to Kobo:
 - <https://www.humanitarianresponse.info/en/applications/kobo-toolbox>
- ❺ Site on XML coding but with plenty of information on XLS coding:
 - <https://opendatakit.org/help/form-design/binding>
- ❻ The CartONG blog (To find advanced tips & tricks):
 - <http://blog.cartong.org/>