Training on

KoBoToolbox for Data Collection

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Introduction to Data Analysis Using Stata
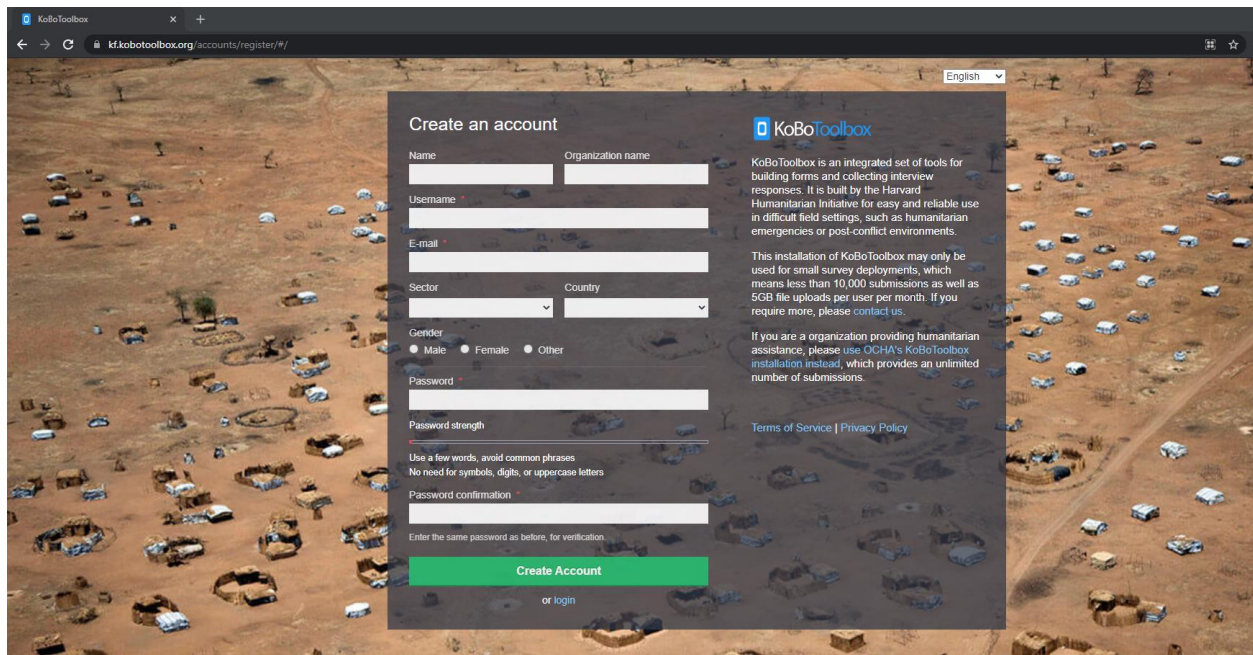
Part 1: KoBoToolbox

Introduction to Kobo Toolbox

Kobo Toolbox is a free and open-source suite of tools for field data collection. The web Kobo Toolbox application allows user design complex forms, deploy and download submitted data. Besides the interactive online form builder/designer a pre-designed XLS form can be uploaded on the Kobo Toolbox platform. Uploaded form or designed on online interactive application page saved as a draft for preview and testing before deployed for data collection. Data can be collected online using ENKETO on browser and offline data collection using KoboCollect mobile application.

Create an account

To upload or create survey form on Kobo Toolbox you will need to have a Kobo account. The platform lets you create account in either of two ways, one for a "Humanitarian Organization" account or a "Researcher, Aid Worker, and Everyone Else" account. For this exercise choose the "Researcher, Aid Worker, and Everyone Else" option.

To create an account, go to https://kf.kobotoolbox.org/accounts/register/#/

1. Click on create account, and then enter the necessary details to create the account.
   If the account has been created successfully, the account creation page comes up with instructions on what to do next.
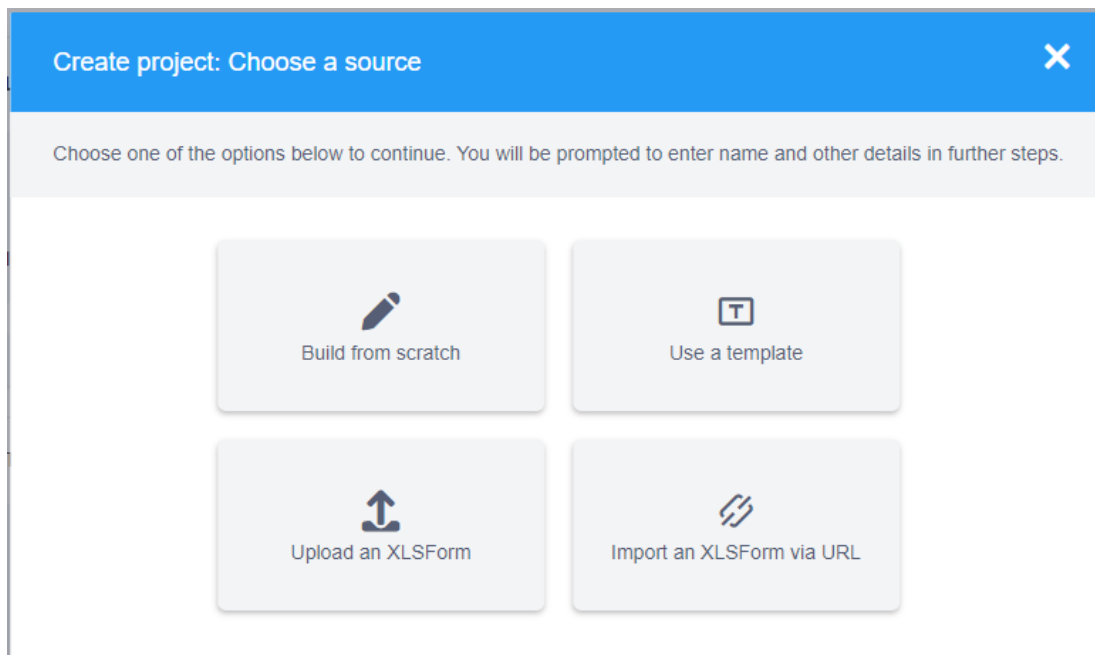
2. Click the activation link in the email sent to your email address. Once the activation link is clicked, a new web page appears showing the kobo toolbox interface necessary to create new projects.

Create your survey

KoBoToolbox has an intuitive design form. A new survey can be created by clicking on "New" at the top right.
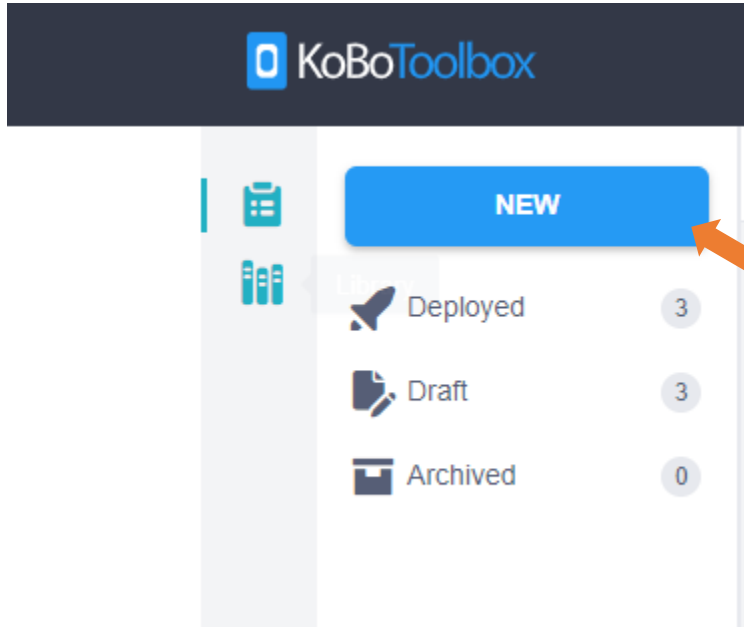
There are four options available to you.

The first option is "Build from Scratch". If you would like to use the interactive designer, you can create your own survey from scratch. Another option is to upload an XLSForm, this is the option this training is based on.

For this exercise, the XLSForm is located in the Dropbox shared folder

After you have created your survey, you can preview, edit if necessary, and deploy it. You can also redeploy the survey if you make any updates or edits. A survey cannot collect data unless it is deployed.

Create a survey: "Build from scratch"

1. Click on "New" (1) to open a 'Create project' dialog box from which select "Build from scratch" (2).
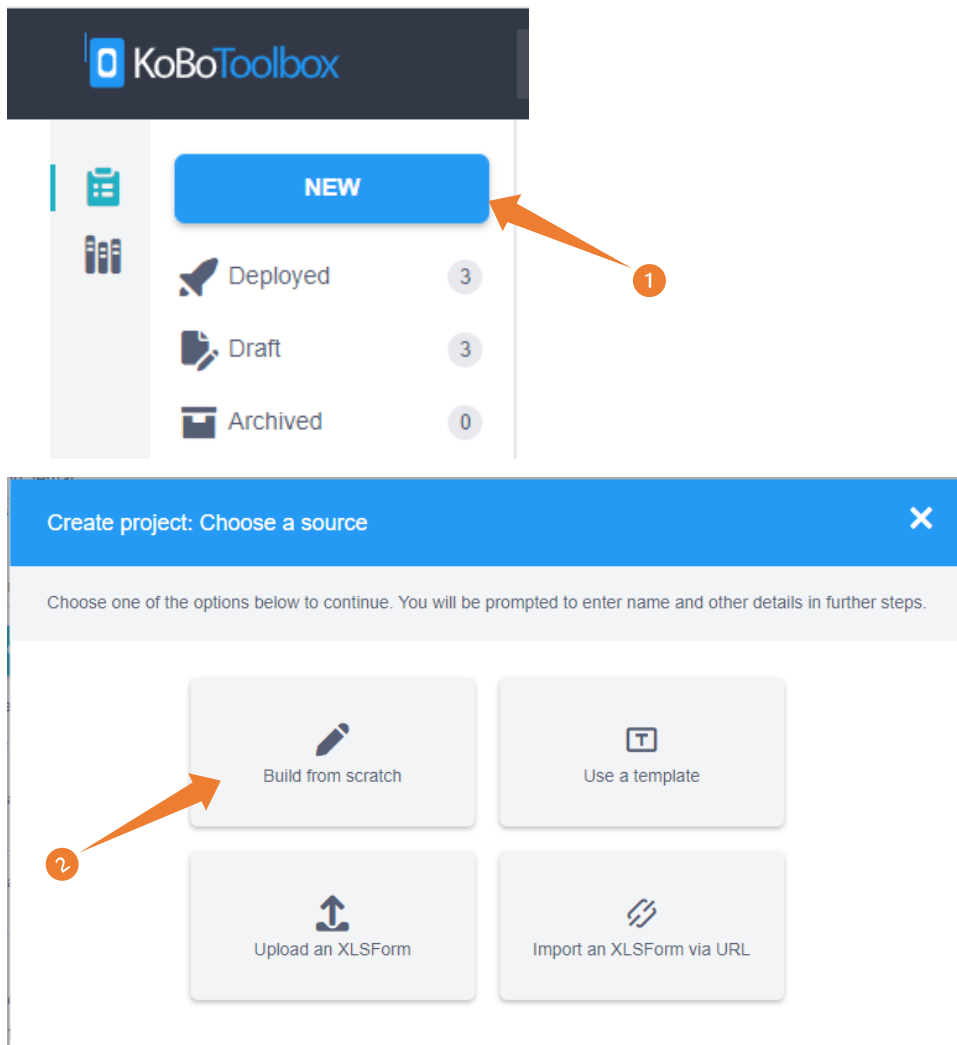
2. Place appropriate **project name** (1) and short **description** (2) of the project. Specify the **sector** (3) and **country** (4) of the project.

Please fill in the following information for this exercise

1. Project Name: "Sample socio-economic survey questionnaire"

2. Description: "The purpose of this questionnaire is to collect fictitious socioeconomic data for training purposes."

3. Sector: select Economic/Social Development

4. Country: PNG

5. Check/Uncheck: In accordance with the data collection protocol and privacy policies.
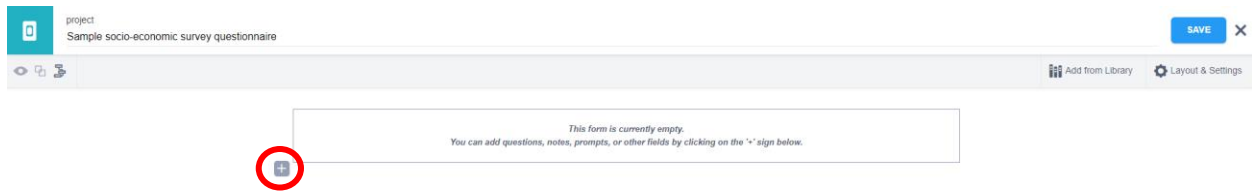
6. Add your first question by clicking the + button.

7. Write the first question as "Surveyor name"
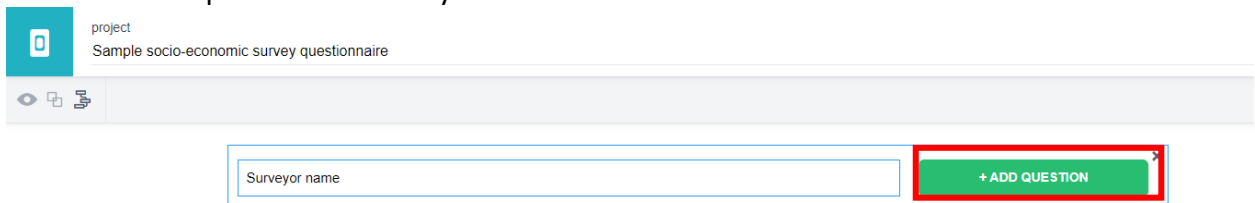
8. Then click **Add Question** and select appropriate data type to represent the response. In this case select *Text* as a response data type.
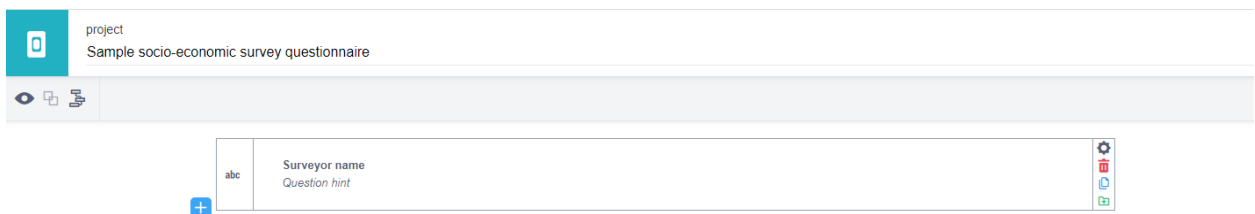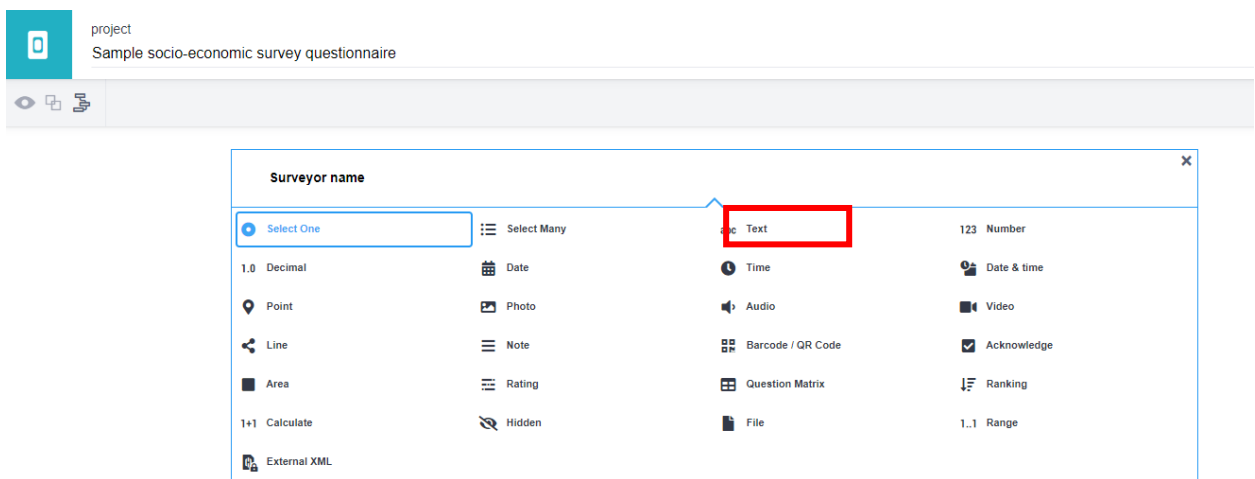
9. It is helpful to explore and test other question types (yes/no; multiple choice with multiple answers, number, etc), as this allows you set different data type response. Add more question fields like 'Province', 'District', 'Age', 'Sources household income', 'specify currency type for the income' etc.

10. Using the icons on the right side of the question, you can edit a question's settings, delete it, duplicate it, or put it into the library for later use.

11. To experiment how to use the settings, by clicking 'gear' [gear icon] icon change the mandatory response option to 'Yes'.

12. You can preview how your survey will look after entering your questions by clicking the eye icon in the top left-hand corner. To check for errors, enter some information and click on the 'Validate' button.
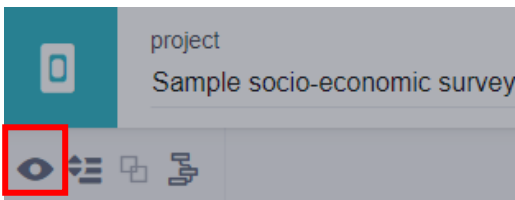
13. The form can be saved by clicking the Save/Create button and then closing it by clicking 'X'.

14. To return to the default project page, click the Kobo icon in the upper right-hand corner. You will be redirected to the project page. Click on the "Sample socio-economic survey questionnaire" form.
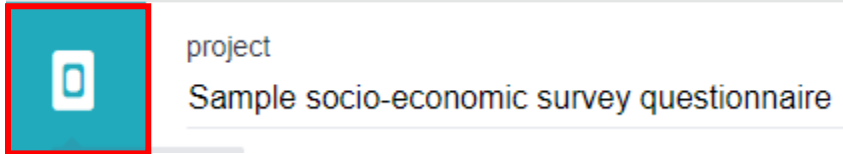
15. Now you are in the survey settings. To launch the survey, click 'Deploy'.
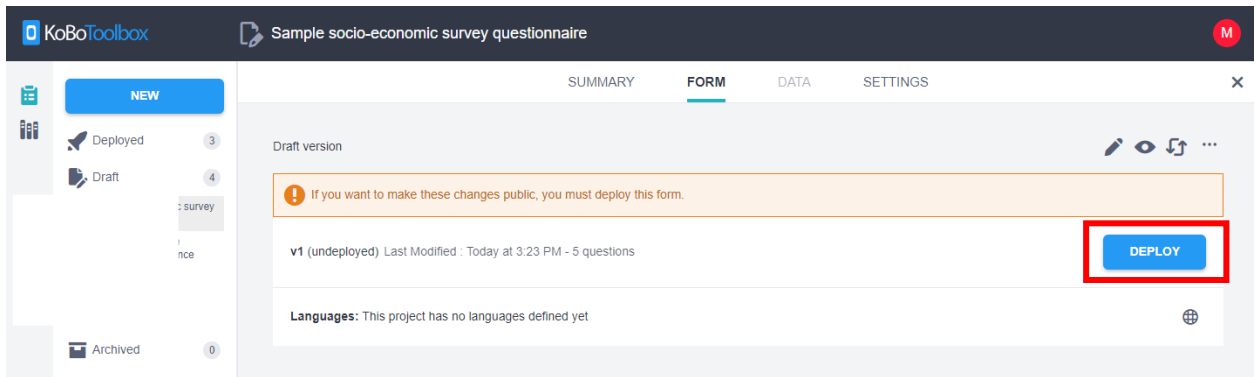
16. After you deploy the form, you can select 'Online-Offline (Multiple submissions)' under collect data. You can copy the link by clicking the 'COPY' icon to share with your team or paste the http link into a search engine to open the questionnaire in a browser.
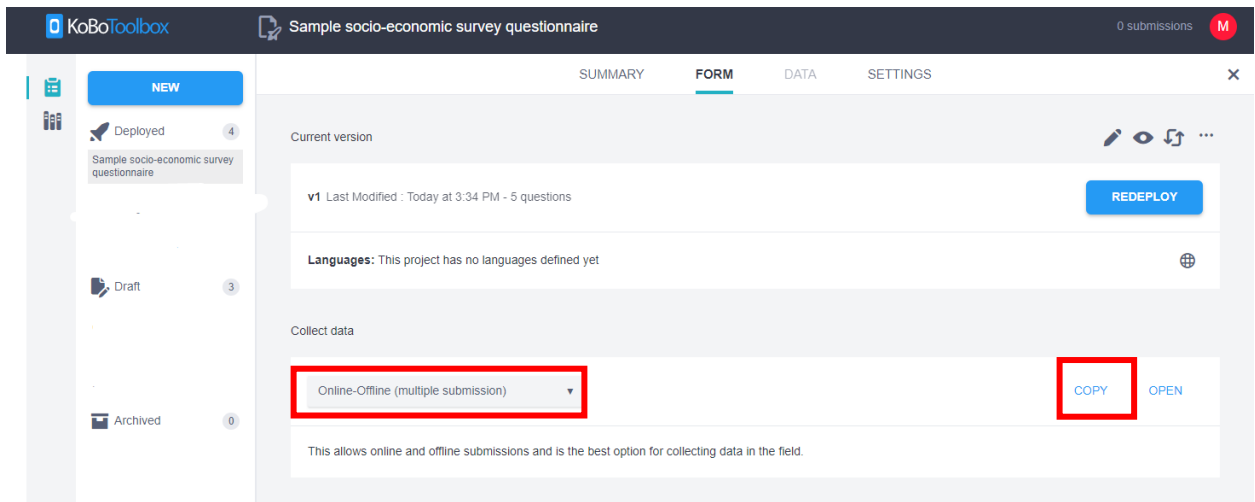
17. Particularly after data submission you can find a comprehensive overview of your survey on the Summary tab. The application will allow you to view the results of your survey, share

the project with colleagues and edit the form. Whenever you make changes to the form, you have to do a re-deploy.
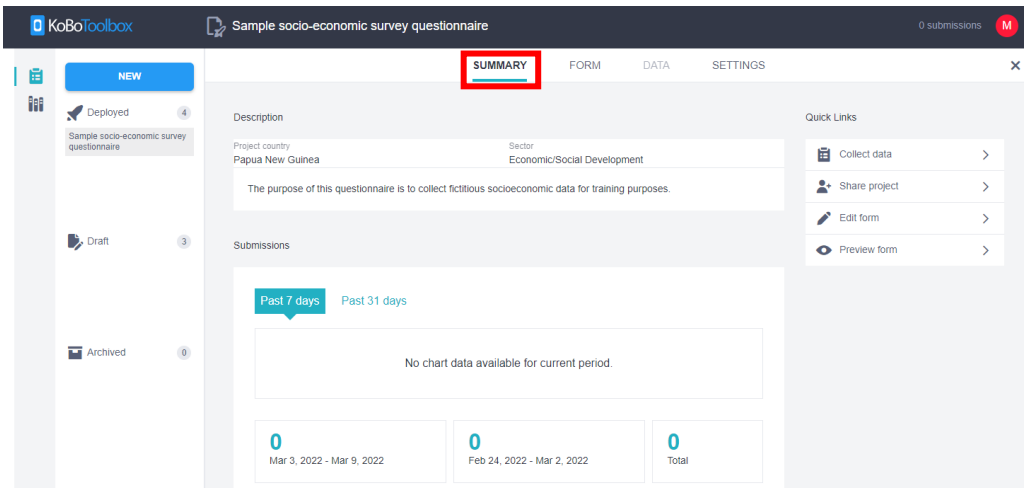
18. The next section of the training focuses on designing questionnaires in Excel and uploading them to Kobo.

Getting started with XLSForm

What is an XLSForm?

XLSForm is a form standard created to help simplify the authoring of forms in Excel. Authoring is done in a human readable format using a familiar tool that almost everyone knows - Excel. XLSForms provide a practical standard for sharing and collaborating on authoring forms. They are simple to get started with but allow for the authoring of complex forms by someone familiar with the syntax described below.

The XLSForm is then converted to an [ODK XForm](#), a popular open form standard, that allows you to author a form with complex functionality like skip logic in a consistent way across a number of web and mobile data collection platforms.

- Set up an XLSForm using Microsoft Excel.

- Upload and preview the XLSForm in KoboToolbox.

- Download a form you have been creating using the KoboToolbox form builder as an XLSForm.

Basic format

Each Excel workbook usually has two worksheets: **survey** and **choices**. A third optional worksheet called **settings** can add additional specifications to your form and is described below.

The **survey** worksheet has 3 mandatory columns: **type**, **name**, and **label**.

- The **type** column specifies the type of entry you are adding.

- The **name** column specifies the unique variable name for that entry. No two entries can have the same name. Names have to start with a letter or an underscore. Names can only contain letters, digits, hyphens, underscores, and periods. Names are case-sensitive.

- The **label** column contains the actual text you see in the form. Alternatively, label translation columns can be used.

type	name	label
today	today	
select_one gender	gender	Respondent's gender?
integer	age	Respondent's age?

◄ ► **survey** choices settings ⊕

The **choices** worksheet has 3 mandatory columns as well: **list name**, **name**, and **label**.

- The list name column lets you group together a set of related answer choices, i.e., answer choices that should appear together under a question.

- The name column specifies the unique variable name for that answer choice.

- The label column shows the answer choice exactly as you want it to appear on the form. Alternatively, label translation columns can be used.

list_name	name	label
gender	transgender	Transgender
gender	female	Female
gender	male	Male
gender	other	Other

◄ ► survey **choices** settings ⊕

The columns you add to your Excel workbook, whether they are mandatory or optional, may appear in any order. Optional columns may be left out completely. Any number of rows may be left blank. All .xls file formatting is ignored, so you can use dividing lines, shading, and other font formatting to make the form more readable.

One thing to keep in mind when authoring forms in Excel is that the syntax you use must be precise. For example, if you write **Choices** or **choice** instead of **choices**, the form won't work.

How to set up XLSForm
To get started with XLSForm, do the following:

1. Create a workbook (either in Microsoft Excel or Google Sheets).

2. Create three worksheets: **survey**, **choices**, and **settings** respectively (sheet names must all be in lowercase).

3. In the **survey** worksheet, create three columns with headings: *type, name,* and *label*.

4. In the **choices** worksheet, create three columns with headings: *list_name, name, label*.

5. In the **settings** worksheet, create a column named *form_title* (the settings sheet is optional)

Adding questions

Questions in XLSForm go in the **survey** sheet. We will practice adding a few questions: *What is your name*, *Sex* and *How old are you?*

1. In the survey sheet, under the type column, type "text". This is the question type for your first question. To learn more about question types in XLSForm, see the table below.

2. Under the name column, type "yourname". This will be the variable name of our first question. The variable name uniquely identifies each question in the form. It's also the name of the question in the database when we start collecting data. Each question must have a unique name and cannot contain spaces or symbols (except the underscore).

3. Under the label column, type "What is your name". This label will be shown as the question text on the form when we collect data.

For second question:

4. Still in the survey sheet, type select_one gender in the type column below the previous question (make sure to put a space between the 2 words). select_one is the question type that allows us to specify a list of choices where a user will only be allowed to pick one choice. (If a user can select several choices, this would be specified by the select_multiple question type.) "sex" is the name of the list of choices which we have to define in the choices sheet.

5. Type the name and label of the question as "sex" and "Sex" respectively.

Question type	Answer input
integer	Integer (i.e., whole number) input.
decimal	Decimal input.
range	Range input (including rating)
text	Free text response.
select_one [options]	Multiple choice question; only one answer can be selected.
select_multiple [options]	Multiple choice question; multiple answers can be selected.
select_one_from_file [file]	Multiple choice from file; only one answer can be selected.
select_multiple_from_file [file]	Multiple choice from file; multiple answers can be selected.
rank [options]	Rank question; order a list.
note	Display a note on the screen, takes no input. Shorthand for type=text with readonly=true.
geopoint	Collect a single GPS coordinate.
geotrace	Record a line of two or more GPS coordinates.
geoshape	Record a polygon of multiple GPS coordinates; the last point is the same as the first point.
date	Date input.
time	Time input.
dateTime	Accepts a date and a time input.
image	Take a picture or upload an image file.
audio	Take an audio recording or upload an audio file.
background-audio	Audio is recorded in the background while filling the form.
video	Take a video recording or upload a video file.
file	Generic file input (txt, pdf, xls, xlsx, doc, docx, rtf, zip)
barcode	Scan a barcode, requires the barcode scanner app to be installed.
calculate	Perform a calculation; see the Calculation section below.
acknowledge	Acknowledge prompt that sets value to "OK" if selected.
hidden	A field with no associated UI element which can be used to store a constant
xml-external	Adds a reference to an external XML data file

Adding choices

Regardless of the type of multiple-choice question (select_one or select_multiple), the next step will be to define the list of choices in the **choices** sheet. Each list of choices must have the same list_name.

Since we defined one question that has a list of choices ("sex") in the previous step, we need to add this list in the **choices** sheet as follows:

1. Switch to the **choices** sheet so that you can add your list of choices for the "Sex" question.

2. In the cell below list_name, type "sex". bodyThis is the list name we defined for the "Sex" question in the **survey** sheet. In the cell below name, type "male". This is the value that will be stored when the user chooses the option "Male". Under label, type "Male". This is what will be shown for this option in the survey.

3. For the second choice, type "sex" as list_name, "female" as the name, and "Female" as the label.

Adding settings¶
It is not mandatory to include the **settings** sheet in the XLSForm - any form will work just fine without it. However, at minimum, you can define the form_title.

Without the form_title in the **settings** sheet, KoboToolbox will, by default, use the file name as the name of the project when you import the XLSForm.

Uploading and previewing the XLSForm in KoboToolbox
Once you have finished creating the XLSForm you must upload it to KoboToolbox in order to preview it.

1. While you are on the Project List view (the first screen after you have just logged in to KoboToolbox), click **NEW**.

2. Click **Upload an XLSForm** .

3. Choose the Excel file you just created and wait until it uploads.

4. Confirm the project details and click **CREATE PROJECT**.

5. You can then click the *Preview form* button to preview your form.

Downloading an XLSForm from KoboToolbox

KoboToolbox allows you to download a form you have been creating using the form builder as an XLSForm file. This might be useful for several reasons such as:

- You need to add some advanced features that are not yet supported in the form builder.
- You would like to make changes to the form that might be easier through XLSForm (such as quickly duplicating a large number of questions).
- Your computer resources such as your browser or internet connection.
- You would like to collaborate on the form with members of your team and you prefer sharing the XLSForm.
- Manage versioning of your form outside of the KoboToolbox platform.
- You are needing assistance from the support team and need to share your form with us.

To download the XLSForm while you are on the Project List view:

1. Hover your mouse over the name of the project.
2. Click the *More actions* icon.
3. Click *Download XLS*.
4. Save the file.

Replacing a form with an XLSForm file

You can replace an existing form with a new version using an XLSForm (for example, after having edited the form in Excel). To do this while you are on the Project List view:

1. Hover your mouse over the name of the project.
2. Click the *More actions* icon.
3. Click *Replace form*.
4. Choose the file.

Source:

https://support.kobotoolbox.org/question_library.html

https://docs.getodk.org/xlsform/