## **International Federation of Red Cross Red Crescent Societies**

## **Reference Centre for Institutional Disaster Preparedness**



## **Didactic Table**

Name	Advanced Open Data Kit Course
Purpose	To increase capacity in digital form design, and provide the necessary tools to be able to configure a server, and to increase the capacity of actors working in the humanitarian field through using ADVANCED OPEN DATA KIT computer tools.
Performance	By the end of the course, in 17 hours, participants will be able to:
objective	Convert XLS forms to XML, both online and offline
	<ol> <li>Programme in Excel</li> <li>Configure an Aggregate instance on a Google server</li> </ol>
	4. Briefcase
	5. Encrypt forms.
Duration	24 hours, including class hours, exercises and meals.
Server	http://capacitacion-odk.appspot.com/

TOPIC	OBJECTIVES AND CONTENTS	TIME	AIDS AND EXERCISES
Lesson 1 Introduction	By the end of the course, participants will be able to:  1. Identify participants, course coordinator, facilitators and expectations.  2. Inform participants about the basic aspects of the course:  Purpose and objectives Logistical details and agenda. Materials to be used Importance of previous work. Evaluations. Other aspects of the course.  Contents:  Meeting participants and facilitators Participants' expectations Purpose and objectives Logistical aspects Course agenda Interactive teaching method (MEI) and competency-based approach. Materials to be used during the course Evaluation Other aspects of the course	120 minutes	Participants' Manual, slides, computer, multimedia projector, flip chart, markers, among others  > Introduction dynamic > Reception of previous work > Review computer equipment
Lesson 2 General information on ODK	By the end of this lesson, participants will be able to:  1. Identify two advantages of technological use in humanitarian actions 2. Know what the Open Data Kit is.  Contents:  ✓ Experience working in large response camps ✓ Advantages of using technology ✓ Information Management	30 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual, telephone.  Exercise: Share experience using ODK in emergency operations

Lesson 3 Introduction to XLS Form	By the end of this lesson, participants will be able to:  ➤ Create a form in Excel.  ➤ Know the structure of Survey, Choices and Settings worksheets  ➤ Know the types of variables for each question  Contents:  ✓ Creating a form in Excel  ✓ Survey worksheet  ✓ Choices worksheet.  ✓ Settings worksheet.	60 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual, telephone.  Exercise: Create an Excel workbook with survey, choices and settings worksheets.
Lesson 4 Programming Language in XLSForm	By the end of this lesson, participants will be able to:  1. Know the syntax and advanced structure of the Survey worksheet. 2. Know the syntax and advanced structure of the Choices worksheet. 3. Know the syntax and advanced structure of the Settings worksheet.  Contents:  Creating questions with restrictions. Creating multiple choice questions. Grouping questions Required questions Form's appearance and form Knowing default values. Performing calculations Inserting media (audio and video images). Creating restricted questions. Displaying or skipping questions based on previous answers. Defining default values for responses. Changing questions' appearance. Knowing other learning resources.	90 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual, telephone.  Demonstrative exercise: Form with required questions, media, calculations, restrictions and default values.
Lesson 5		180 minutes	Laptop, multimedia projector, screen,

Converting XLS to XLM	<ul> <li>By the end of this lesson, participants will be able to:</li> <li>1. Convert forms from XLS to XML online to be able to upload them to Aggregate.</li> <li>2. Convert forms from XLS to .XML offline to be able to upload them to Aggregate.</li> <li>Contents: <ul> <li>✓ Converting .XLS to .XML Online.</li> <li>✓ Converting .XLS to .XML Offline.</li> <li>✓ Verify forms in XLS Enketo</li> <li>✓ Preview forms in Enketo</li> </ul> </li> </ul>		markers, Participants' Manual, telephone.  Practical exercises:  Convert an XLS file to XML using the "xiframe" online converter  Convert an XLS file to XML using the "xlsform V0.9.22" programme
Lesson 6 Creating and Configuring an Aggregate Instance	By the end of this lesson, participants will be able to:  1. Define what a web server is. 2. Explain what Google App Engine is. 3. Create an Aggregate instance. 4. Restrict ODK Aggregate permissions to increase security. 5. Upload forms to the App Engine instance.  Contents:  ✓ Web server  ✓ Google App Engine  ✓ Create an App Engine instance  ✓ Restrict ODK Aggregate permissions to increase security.  ✓ Add users.  ✓ Uploading forms to the App Engine instance.	120 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual, telephone.  Practical exercises:  > Install "Aggregate" > Add users
Lesson 7 ODK Briefcase	By the end of this lesson, participants will be able to:	60 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual,

	<ol> <li>Know what Briefcase is and its usefulness.</li> <li>Extract forms.</li> <li>Add forms from an ODK Briefcase Storage location to ODK Aggregate.</li> <li>Export completed forms to a CSV file</li> <li>Add forms to your mobile device from your computer.</li> </ol> Contents: <ul> <li>Knowing ODK Briefcase</li> <li>Installing Java</li> <li>Pull</li> <li>Push</li> <li>Export.</li> <li>Adding blank forms to devices.</li> </ul>		Practical exercises: -Pull forms -Push forms
Lesson 8 Google Fusion Tables	By the end of this lesson, participants will be able to:  1. Know what Fusion Tables are 2. Know the importance of data management 3. Access and use Fusion Tables 4. Share and publish Fusion Tables  Contents:  V What is Google Fusion Tables?  Data management Benefits of good data management Benefits of using Google Fusion tables  Accessing Google Fusion Tables Installing Google Fusion Tables Importing from an Excel file Importing from Google Drive Sharing / publishing a table	120 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual, telephone.  Practical exercises: -Installing Google Fusion Table -Importing a file -Sharing a table.  Laptop, multimedia projector, screen,

Lesson 9 Dynamic Data	By the end of this lesson, participants will be able to:		markers, Participants' Manual, telephone.
	<ol> <li>Create Pivot Tables to analyse data</li> <li>Create pivot charts.</li> </ol>		·
	Contents:  ✓ Cascading Select  ✓ Pre-loaded data and Dynamically-Loaded Multiple-Choice Data  ✓ Pulldata  ✓ Inserting dynamic graphs		-Practical exercise with dynamic data
Lesson 10 Data encryption	By the end of the lesson, participants will be able to:	60 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual, telephone.
	<ol> <li>Know what encryption of form data is</li> <li>Encrypt forms before sending them to ODK Aggregate.</li> </ol>		Practical exercise: Creating a private key.
	Contents:  ✓ Encrypting form data.  ✓ Requirements.  ✓ Security.  ✓ Configuration and operation.  ✓ Installing Java Runtime Environment  ✓ Creating the RSA key pair		
Final Exercise	<ul> <li>FINAL EXERCISE</li> <li>Creating an Excel form that includes multiple choice questions, required questions, default values, calculations, images.</li> <li>Converting an XLS form to XML.</li> <li>Creating an App Engine instance and uploading the form.</li> <li>Exporting the form in CSV format</li> <li>Hosting data in the cloud and generating a map with Google Fusion Table.</li> <li>Generating a PivotTable and a PivotChart</li> </ul>	120 minutes	Laptop, multimedia projector, screen, markers, Participants' Manual, telephone