

QUICK INSTALLATION GUIDE

DATA COLLECTION APPLICATION

1 Overview

The Data Collection Application (DCA) comprises a series of data collection forms developed on the open source Open Data Kit platform and a Data Validation Functionality (DVF). The DVF allows an administrator to review and edit the data submitted via the forms before submitting that data to a company's database.

With regards to the set up ODK, **ODK Collect** app and **ODK Aggregate server** must be installed.

2 Installation

2.1 Installation of Aggregate Server

ODK Aggregate server can be installed depending on one's server requirements as listed in this url:

<https://opendatakit.org/use/aggregate/>

2.2 Installation of ODK Collect

ODK Collect is only available for smartphones with an android version operating system. ODK Collect can be access for free through the Google Play store. It must be installed on each smart phone to be used to collect data.

After the app has been downloaded, please follow the **How to Guide** for configurations.

2.3 Installation of Data Validation Functionality code

1. Download a zip file of the source code from <https://villagepowerltd.github.io/oss-public/> and unzip to a location of your choice on the computer.
2. Run the 'users.sql' file inside your database query editor or console (MySQL in particular).
The first user can be created but the password encrypted using PHP's [password_hash\(\)](#) function
3. Copy the verify folder to the root of your server.
4. Run the following link <http://localhost/verify> and then input the username and password generated and you'll now be able to access the Data Verification Functionality Portal.
5. The user How-To-Guide for the Data Validation Functionality can be accessed [here](#)

3 Generating Forms

The steps and various ways to generate Forms is described here: <https://opendatakit.org/use/xlsform/>

The Data Collection Application by default has 5 forms (Sales Contract, Installation Form, Repossession Form, Troubleshooting Visit Form, Kit Collection Form)

4 Code review (DVF)

4.1 Definitions of the script

- To configure your server credentials, use the '*defines.php*' script as the details are commented out in the script.
- The 5 forms described above in the **Generating Forms** sections are also shown in '*forms.php*' script as an example. This script is used to define the forms that will be used, columns that will be shown at the first page after login (to be specific, there are 5 columns not including the '#' column), and also includes extra fields that can be included in the '*details.php*' since this script shows all the information after a form number has been clicked.
- The '*defines.php*' script contains a *url* variable that one should define since this is the URL to which the forms will be sent to before they are deleted from the Aggregate Server.

4.2 Setting up the URL

- Use the REQUEST[] PHP defined variable to receive the fields defined in your form.
- The add the following lines of code to the end of URL as it redirects back to the server where your files where set up and deleted information for the previously sent form.

```
$url = "http://localhost/verify/delete.php?id=".$meta_id."&form=".$form_id;

header("HTTP/1.1 200 OK");
echo "Data has been successfully recieved on the Server. Redirecting in 5
seconds...<br>";

header("refresh:5;url=".$url);
```

5 Minimum Requirements

- This tool was developed based on ODK Collect v1.4 but later incorporated to cater for ODK Collect v1.7 currently (8th June, 2017).
- Supported browsers include Google Chrome & Mozilla Firefox.
- ODK Collect is available for devices with OS version 1.6 or later for all android smart phones.
- Quality camera with low resolution setting option (640x480) or should be set to the minimum camera resolution for some high end phones. It should be noted that if a phone with a high camera resolution is used, it is advised to use Mozilla Firefox as this may crash Google Chrome as it runs out of memory often.
- GPS functionality should be enabled for all phones if the form contains questions asking for GPS coordinates.
- Minimum MySQL version: 5.6.12
- Minimum PHP version: 5.5.12
- In relation to XML forms, to capture the Username from the user, you have to edit the bind nodeset that contains the field where you want the username to be captured. You can follow this [link](#) for more details. Screenshot below.

```
</item>
</root>
</instance>
<bind nodeset="/Restructuring_Form/user" readonly="true()" type="string" jr:preload="property" jr:preloadParams="Username"/>
<bind nodeset="/Restructuring_Form/client_id" type="int"/>
<bind nodeset="/Restructuring_Form/gps_coordinates" type="geopoint"/>
<bind nodeset="/Restructuring_Form/bar_code" type="barcode"/>
<bind jr:constraintMsg="The barcode scanned is not valid. Please enter the bar code numbers manually in the next question" nodeset="/Restructuring_Form/bar_code_alternative" relevant="/Restructuring_Form/bar_code = 'VP12015DC00001' or /Restructuring_Form/bar_code = 'VP22015DC00001' or /Restructuring_Form/bar_code = 'VP32015DC00001' or /Restructuring_Form/bar_code = 'VP42015DC00001' or /
```