CommCare Fundamentals - CommCare Structure

Learning Objectives

- Define the terms application, CommCare Exchange, project space, form, and module
- Describe the basic structure of CommCare
- Identify the best Internet browsers to use for accessing CommCareHQ
- Describe what can be done in each of the main sections of CommCareHQ
- Describe the structure of CommCare applications in terms of forms and modules

CommCare Software

CommCare is a software program that allows people to create and manage mobile applications through the website, CommCareHQ. CommCare is the overall tool for building applications, making changes, downloading applications to phones, registering the application users, and viewing data submissions.

A CommCare Application ("app") is the mobile-based tool which is used for data collection and service delivery. An application can take many shapes and levels of complexity – there are CommCare apps for maternal and child health, for simple surveys, for agricultural extension agents, nutrition, education, and all sorts of programs where there is a need to provide support to frontline workers and collect data digitally. To explore some applications that have been made with CommCare, please visit the free CommCare Exchange. The CommCare Exchange is a part of CommCareHQ where anyone can share CommCare applications they have created or download and use applications that other people have developed. There is additional information about the CommCare Exchange here.

Applications are built on the CommCareHQ website. It is not necessary to download any software; you can just create an account from any computer and start using CommCare.

Note for CommCareHQ Users on Browsers

Please note that CommCareHQ works best on the following browsers:

- Google Chrome
- Mozilla Firefox
- Internet Explorer Version 10 or higher.

If you have an older version of Internet Explorer CommCareHQ will not work well. You can find more hints on using Internet Browsers for CommCareHQ here.

CommCare Projects

Each program has its own project space on CommCare HQ with its own name. A project space (or project) is a secure web portal in the CommCare system that contains all data related to your CommCare applications, as well as tools that help you create, manage, and deploy your applications and mobile workers. Anyone can create their own project space, and can choose to let other people have access to their project space.

For example, there is a project called "helpsite" where we keep applications that are used on the help site. We decided to name the project "helpsite" because it is simple and easy to remember.

You will see all project spaces in CommCareHQ have a similar structure. Here are some of the key parts of each CommCare HQ Project Space:

- Reports - view and download worker activity, error reports, and individual form submissions
- Data - download raw data exports
- Users - manage the web and mobile users for the project
- Applications - create, update, and deploy applications
A project can have one application or many applications. Applications can all be separate, or they can communicate with each other using “case management,” which we will discuss later.

To have access to any project space, you must have a CommCare HQ account.

As illustrated below, a CommCare HQ user, you can create or be invited to multiple project spaces. If you belong to multiple project spaces, after logging into CommCare HQ you will be able to choose which space you want to work in at that time. Data is not shared among project spaces, so unless you invite someone else to your project, no one else will be able to see your application or your data.

**FORMS**

The basic unit of work in CommCare is called a form. It’s just like most paper-based systems- if you want to complete a task like registration, a transaction, or updating information, you often have to fill out a form. Sometimes a project requires lots of forms.

A form will usually contain a series of questions like this:

In CommCare, you can build all of the forms we need over the course of a particular project and link them together into one application.

For example, if you are monitoring the condition of a farm, you might have to fill out one form the first time you visit the farm to collect basic data about it. When you return to the farm, you may have to take measurements that require filling out a different form. If there is a flood, there is a third type of form you have to fill out. Your CommCare app would also have at least three forms which would update the record of the form.
A CommCare form is a group of questions and messages that the user views sequentially on the phone. This is the core content of CommCare applications. When users submit data, they submit completed forms. They are fully customizable and support all kinds of useful features like multiple languages, skip logic, validation, and multimedia content.

A form can contain many types of questions. For example:

- Text
- Number
- Date
- Multiple Choice

There are also advanced question types like:

- **GPS** - This question type allows a user to capture their GPS location.

  ![Question Types](image)

  If using an Android device, this question should allow you to capture a GPS location. Try it out.

  ![Record Location](image)

- **Media Capture (Photo, Video, Audio)** - CommCare for Android can be used to capture or upload images, videos and audio to a form.
• **Barcode Scanner** - This allows data stored in an external barcode to be captured.

If available on your device, this question should allow you to take a picture or upload an image.

- Take Picture
- Choose Image

If using an Android device, this question should allow you to scan a barcode.

- Get Barcode

You can find a complete list of all supported question types [here](#).
MENUS

CommCare also uses menus, which are groups of forms that are all related to the same type of thing. A menu can have one or many forms, and an application could have many menus; it is like a folder full of forms that are all about the same thing. A menu about the farm that is being tracked could contain a registration form, a yield and an income form. Each form has a different purpose but they are all related to the farm.

At the moment, there are two basic types of menus:

- **Surveys** allow you to set up forms that are used for one-time data collection. This should be used if you do not need to track data over time.
- **Case Lists** allow you to set up forms that create, manage or close cases that you create with your application. More on “case management” will be discussed later in the course.

A single CommCare application can contain multiple menus. They can also contain both Surveys and Case Lists, though you could keep them as separate apps. So here is what an example application’s structure might look like:

![Application Diagram]

In the example above, the Register and Followup forms are probably referring to the same type of individual, facility, or thing- maybe about a child- so they are grouped into the same module. The Survey form may be used to collect more basic information that you want to know, but do not want to have connected with a particular individual, facility or thing. As mentioned, you could also create split these into two separate applications if you so desired.

The key points to remember are:

- The unit of data submission and work is a form. Every time a mobile phone user fills out a form, it is marked as completed and sent over to the CommCareHQ server via an Internet connection, such as a mobile data network, or a WiFi network.
- Forms can be grouped into menus to match the overall workflow and responsibilities of the worker.
- Forms can be used to track information for a person, place or thing over time when used in a Case List Menu or for one time data collection when used in a Survey Menu.

There are lots of tutorials on the [CommCare Help Site](https://www.commcarehq.org/) to help you navigate the structure of an application. Now you know all of the basics!

The next piece of CommCare Fundamentals is to learn about Mobile and Web Users.

**Go to the next section.**
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