



Using Epicollect: An online data collection platform for citizen scientists

Session 3: How to collect, store,
view and download water quality
data using Epicollect

Designed for citizen science
volunteer coordinators



School of Earth and
Environmental Sciences
Ysgol Gwyddorau'r
Ddaear a'r Amgylchedd



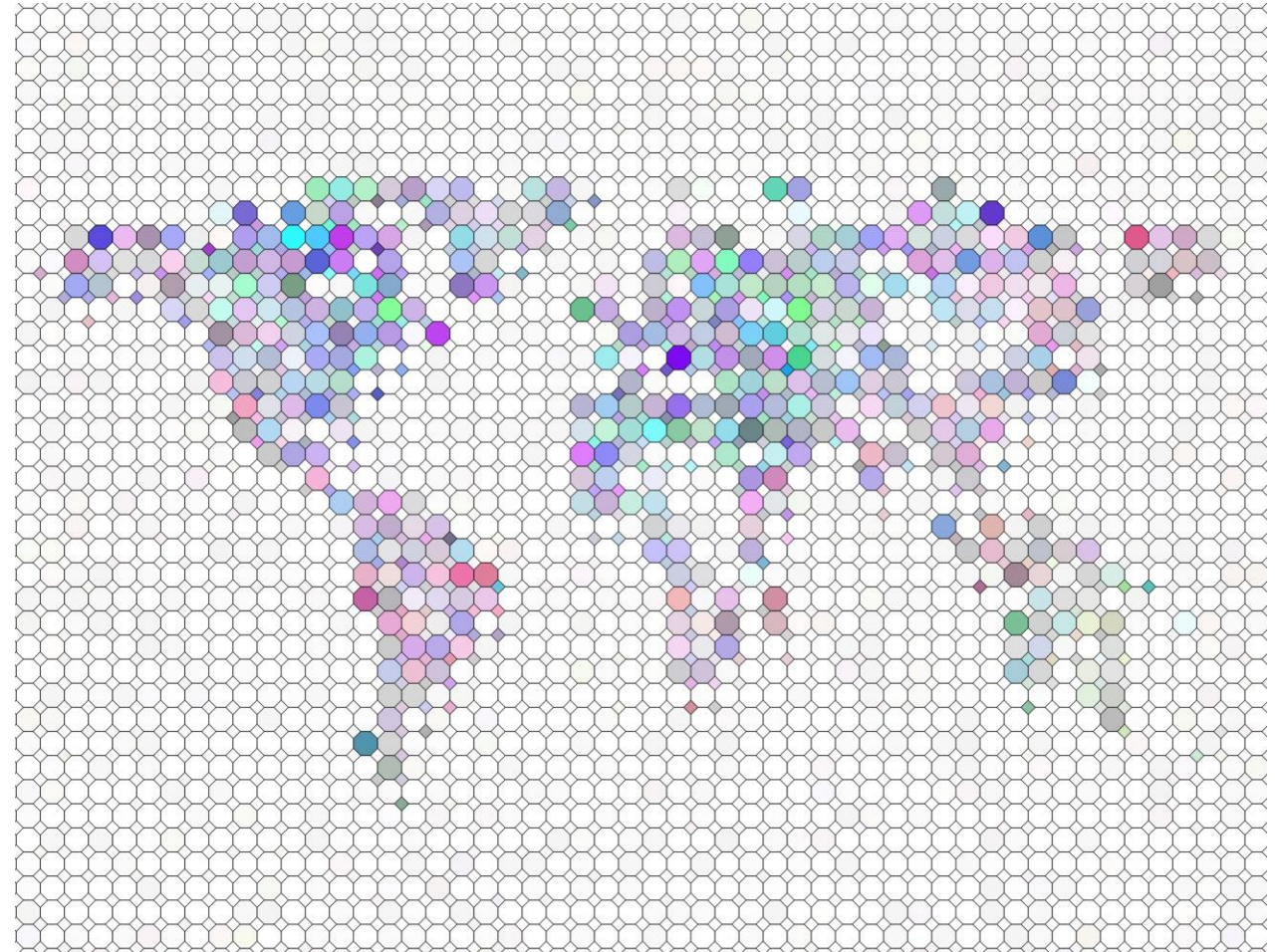
Natural
Environment
Research Council

What do online data collection platforms do?

Allow you to collect, store, view and download geolocated data

Can be used as an app on your mobile phone

Can be accessed on a computer via a web browser



What's the advantage of an app over pen and paper?

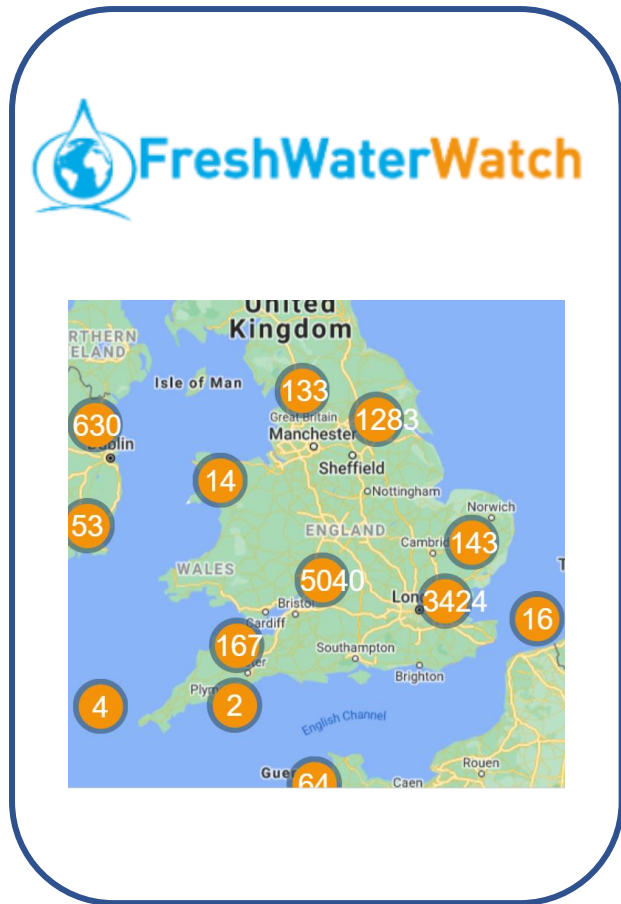
- Quick and easy to use in the field
- Reduced the chance of data loss or making errors in recording
- Data is uploaded instantly for others to access



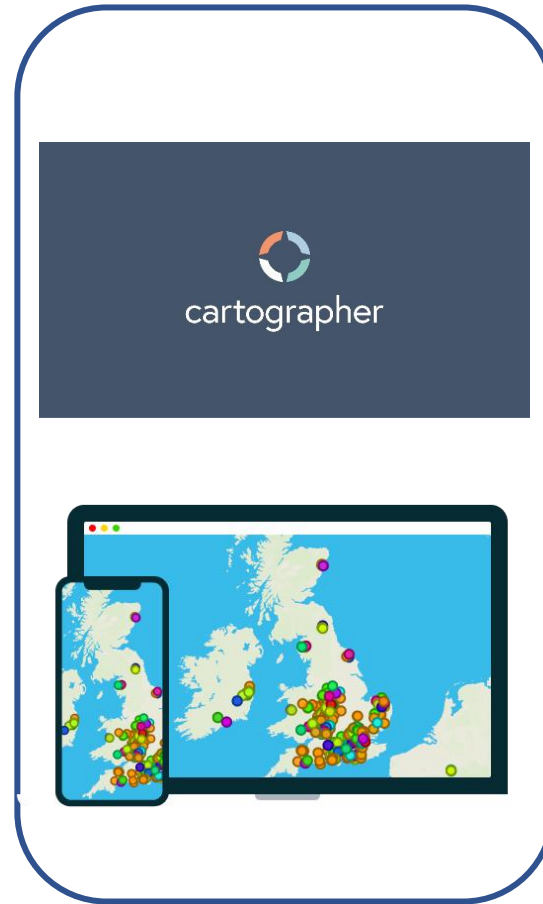
Data collections platforms available for citizen scientists

- There are now a huge range of data collection platforms designed for citizen scientists to record their data and observations.
- They've become particularly popular for environmental monitoring applications.
- Some are expensive but many are completely free to create an account, add and view data on.
- Most platforms use standard templates or forms which can be a brilliant resource for those interested in monitoring a specific thing.
- However, standard forms are not customizable and don't give citizen science groups freedom in what and how they record their data and can view and download it afterward.

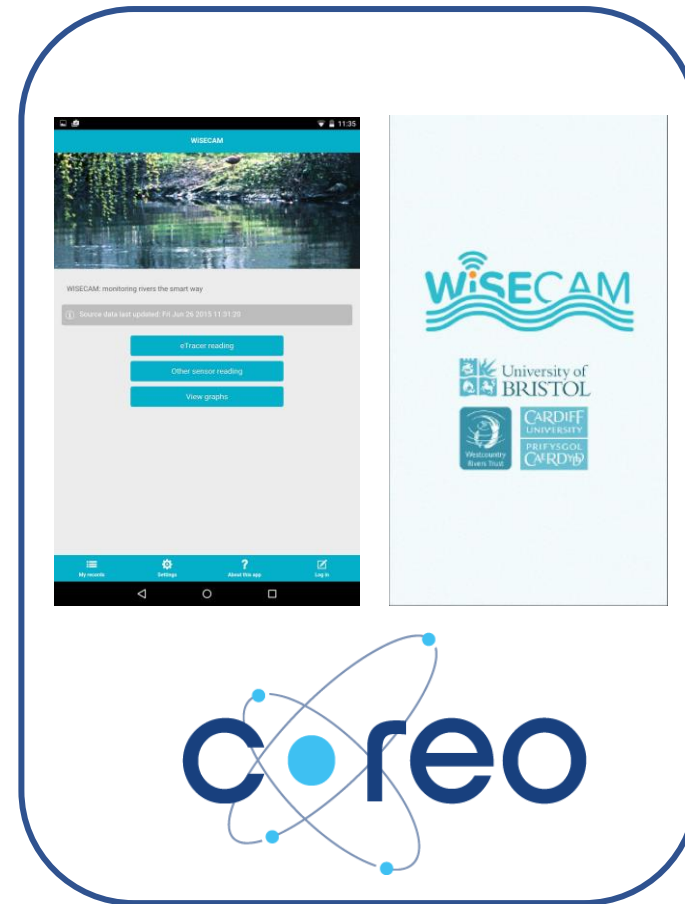
Some data collection platforms designed for water quality data



Freshwater Watch



Cartographer



WiSECAM/ Coreo



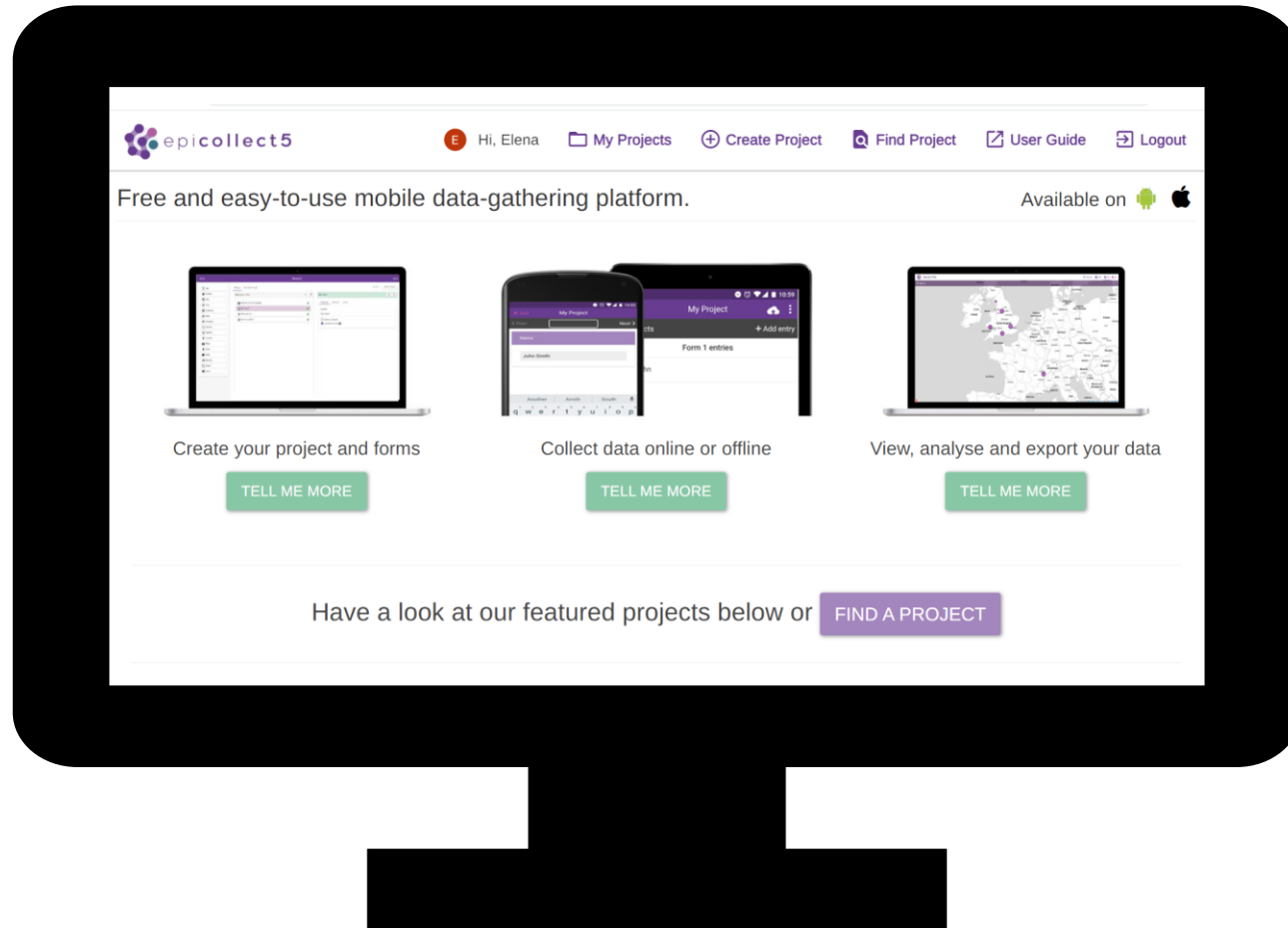
ArcGIS Collector

So, why Epicollect?

- It's completely free!
- It allows you to create your own projects and forms
- It allows total customisation of forms
- It's user friendly
- It has all the key features you should need
- It has a smartphone app



Funded by the wellcome trust,
created and maintained by
Oxford big data institute



The web application:

<https://five.epicollect.net/>

→ Access from your web browser

Epicollect has
two interfaces
that work
together...

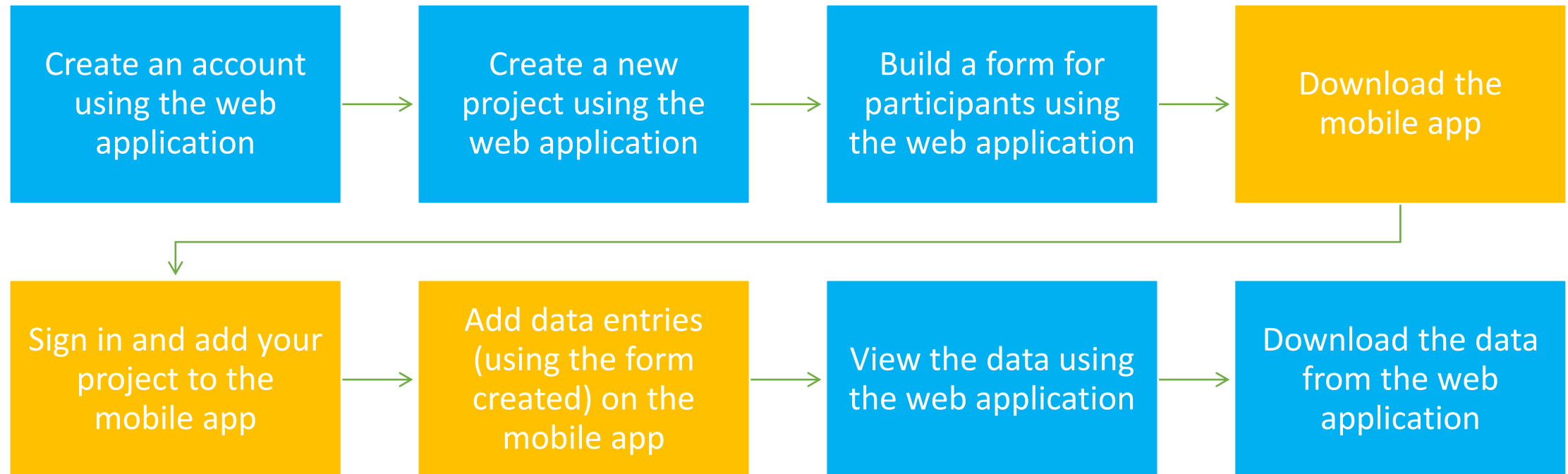


The mobile application:

“Epicollect5 Data Collection”

→ Install from the Play Store

An overview of how to use epicollect



Blue = steps to be carried out using the web application

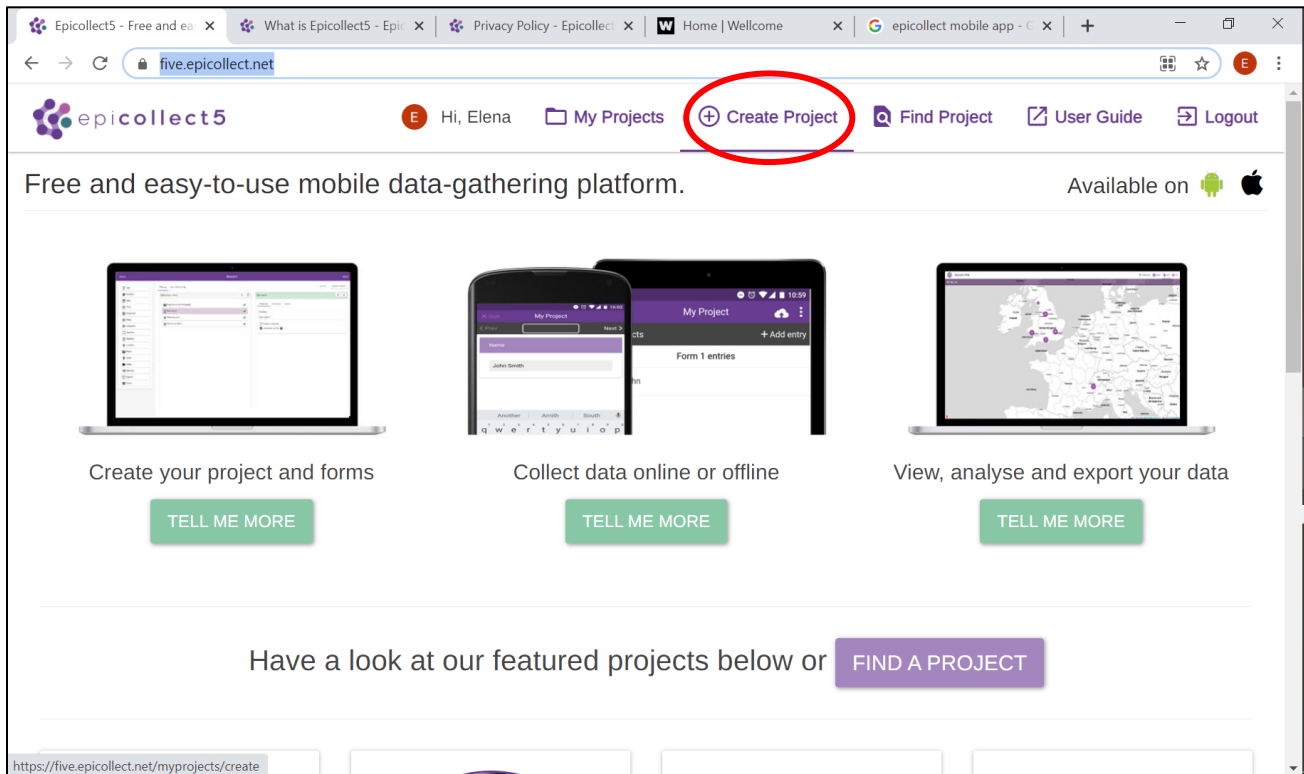
Orange = steps to be carried out using the mobile application

1. Create an account

You'll need to create a free account online to get started:

- Go to: <https://five.epicollect.net/>
- Select **log in** in the top right-hand corner
- Currently Epicollect makes signing up easier for those with Google accounts, but it's also possible to use an Apple account or another email address. You don't need a Gmail address to create a free Google account.
- More information about registering with Epicollect can be found here: <https://docs.epicollect.net/web-application/manage-users>
- You can learn more about Epicollect's privacy policy here: <https://docs.epicollect.net/about/privacy-policy>

2. Create a new project



The screenshot shows the Epicollect5 website interface. The browser address bar displays 'five.epicollect.net'. The navigation menu includes 'Hi, Elena', 'My Projects', 'Create Project' (circled in red), 'Find Project', 'User Guide', and 'Logout'. Below the navigation, the text reads 'Free and easy-to-use mobile data-gathering platform.' and 'Available on' with Android and Apple logos. Three main sections are visible: 'Create your project and forms' with a 'TELL ME MORE' button, 'Collect data online or offline' with a 'TELL ME MORE' button, and 'View, analyse and export your data' with a 'TELL ME MORE' button. At the bottom, there is a section for 'Have a look at our featured projects below or' with a 'FIND A PROJECT' button. The URL bar at the bottom shows 'https://five.epicollect.net/myprojects/create'.

- In order to create **forms** that your citizen scientists can fill in on their phone – you first need to create a new project
- Select **Create project** when signed into your account

Epicollect5 - Create Project | What is Epicollect5 - Epicollect5 | Privacy Policy - Epicollect5 Data

five.epicollect.net/myprojects/create

epicollect5 Hi, Elena My Projects Create Project Find Project User Guide Logout

Create Project

[New Project](#) [Import Project](#)

Project name

Wye Citizen Science Water Quality Project 2

Max 50 chars

Small description *(A long description can be added later)*

A project to collect citizen science water quality data from across the Wye c

Max 100 chars

Form name

Water quality data entry

Max 50 chars

Access

Private Public

CREATE

Once you hit the CREATE button – it will ask whether you want to create a project form straight away or later (hit later for now)

Epicollect5 - Project details | What is Epicollect5 - Epicollect5 | Privacy Policy - Epicollect5 Data

five.epicollect.net/myprojects/wye-citizen-science-water-quality-project-2

epicollect5 Hi, Elena My Projects Create Project Find Project User Guide Logout

Wye Citizen Science Water Quality Project 2 project created!

Congratulations, you have now created your project website!

Before submitting data you must add some questions to your form(s).
Click the "Ok, open formbuilder now" button below to open the formbuilder.

For further instructions, please read our friendly User Guide.

NO THANKS, I'LL DO IT LATER OK, OPEN FORMBUILDER NOW

Project details

Project homepage: https://five.epicollect.net/pr

Dashboard

- Details
- Form Builder
- Manage Users
- Mapping Data
- Clone
- Manage Entries

Developers

- API
- Apps

PRIVATE PUBLIC

ACTIVE TRASH LOCK

LISTED HIDDEN

General

Found a bug? Have a question? Post it on our community page!

Do you like Epicollect5? Please consider rating us on the Play Store or App Store, thanks! 🙌

Creating a project will take you to this screen where you can add basic details about your group's citizen science project – you can edit everything except the project name later

You'll then be taken to your project **Details** page... You've now created your first project!

five.epicollect.net/myprojects/wye-citizen-science-water-quality-project-2

epicollect5 Hi, Elena **My Projects** Create Project Find Project User Guide Logout

Wye Citizen Science Water Quality Project 2

Project homepage: <https://five.epicollect.net/project/wye-citizen-science-water-quality-project-2>

Dashboard

- Details
- Form Builder**
- Manage Users**
- Mapping Data
- Clone
- Manage Entries
- Developers
- API
- Apps

This project is not ready for data collection! You will have to add some questions to your form(s)

Project details

WC

A project to collect citizen science water quality data from across the Wye catchment

Created on Tuesday 23 Mar 2021, 12:24

No description yet

Here you can add a project photo and edit the description

Settings

Access: PRIVATE PUBLIC

Status: ACTIVE TRASH LOCK

Visibility: LISTED HIDDEN

Category: General

Found a bug? Have a question? [Post it on our community page!](#)

Do you like Epicollect5? Please consider rating us on the [Play Store](#) or [App Store](#) , thanks! 🍌

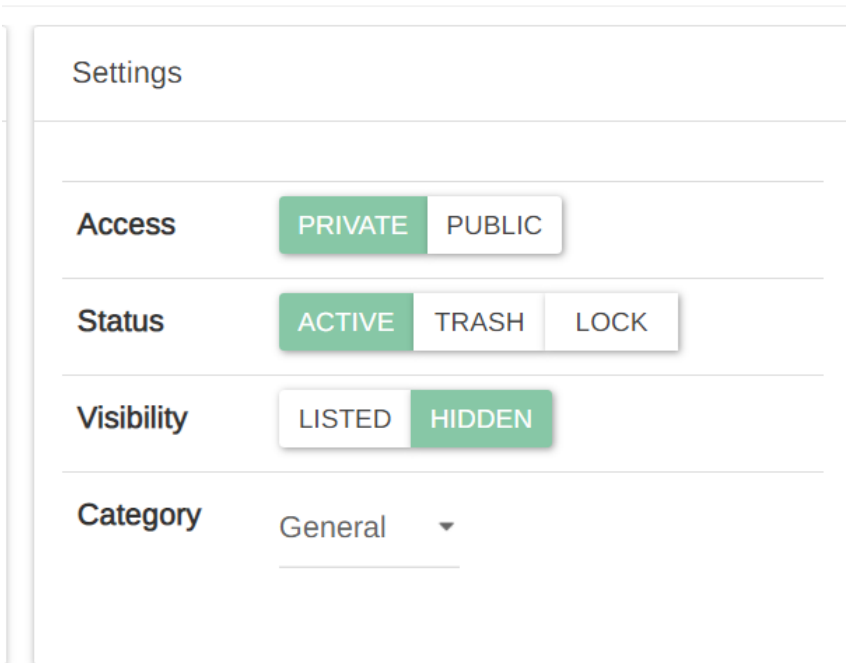
This page is saved under **My Projects** when you're next looking for it

You're currently looking at the **Details** tab of the dashboard

These settings can be changed at any time – more info on the next slide...

Manage Users and **Form Building** are two other very important dashboard project editing options, explained on the next slides...

Editing a project – change basic settings



The screenshot shows a 'Settings' panel with four sections:

- Access:** Two buttons, 'PRIVATE' (highlighted in green) and 'PUBLIC'.
- Status:** Three buttons, 'ACTIVE' (highlighted in green), 'TRASH', and 'LOCK'.
- Visibility:** Two buttons, 'LISTED' and 'HIDDEN' (highlighted in green).
- Category:** A dropdown menu currently set to 'General'.

PUBLIC: anyone will be able to view the collected entries, add new entries, or download all the entries.

PRIVATE: only members of the project can access it. Requires authorized access.

ACTIVE: project can be viewed, data can be collected and uploaded.

TRASH: project cannot be viewed or receive data, but it can be restored. To delete it permanently, when a project is trashed a "delete" button appears.

LOCK: project can be viewed, but it does not accept any new entries.

LISTED: this means your project can be found when searching for a project on the website.

HIDDEN: means only users knowing the URL will be able to access it on the web

More information can be found here:

<https://docs.epicollect.net/web-application/set-project-details>

Editing a project – manage users

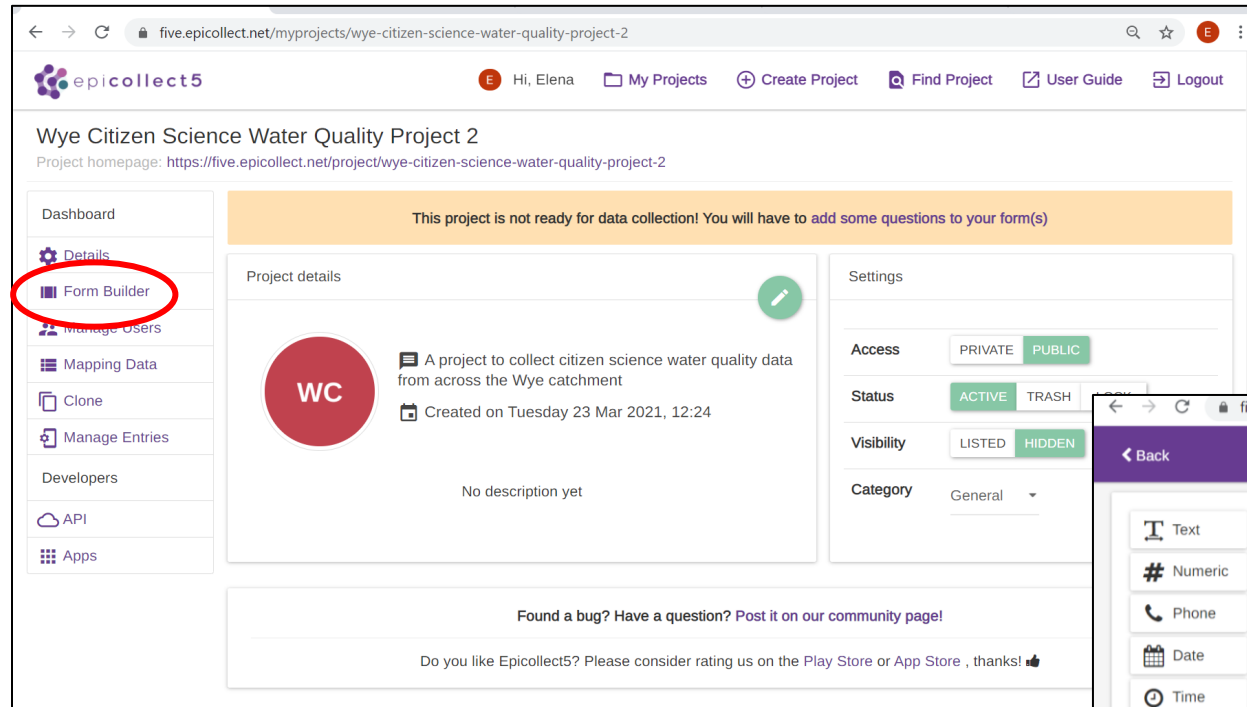
- You can add new users and remove old ones via the manage users tab.
- Epicollect allows you to add lots of different types of user to your project, including:
 - **Creator** – has full access to the project, including viewing, downloading, editing, deleting and uploading data, forms and projects; can add or remove anyone from the project
 - **Manager** – as above except can only add or remove roles below them from the project
 - **Curator** – can view, download, edit, delete and upload everyone's data from a project
 - **Collector** – can only upload their own data to a project but can view and download others
 - **Viewer** – can only view and download data collected by others

More information can be found here:

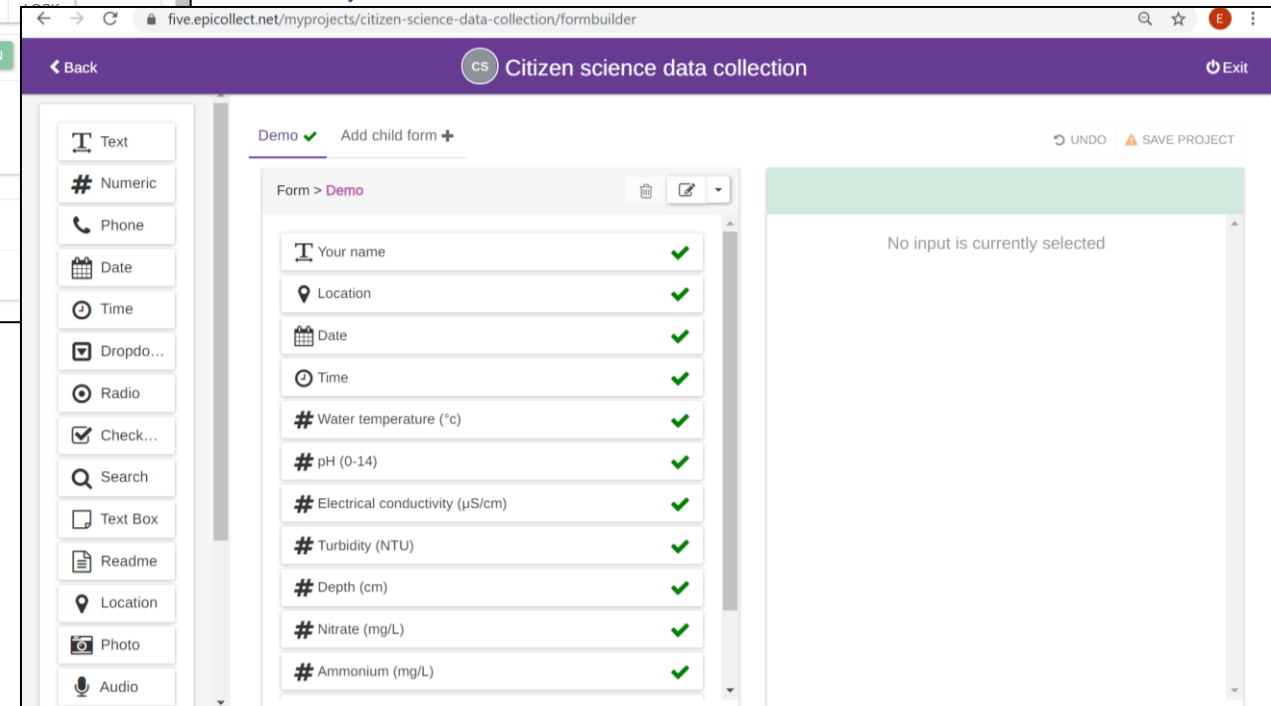
<https://docs.epicollect.net/web-application/manage-users>

3. Build a form for your project

- Forms are essential as they create the format in which each citizen scientist in your group will enter their data via the mobile app
- The form building tool in Epicollect might look a bit daunting but it's intuitive and gives you options to enable you to create a form that meets your groups unique requirements



Select **Form Builder** from the dashboard →



Types of questions you can create using the form builder

There are a range of different types of question you can ask citizen scientists including...

More information can be found here:

<https://docs.epicollect.net/formbuilder/input-types>

Text

Numeric / Phone number

Date/ Time

Location

Radio/ Dropdown/ Checkbox

Search

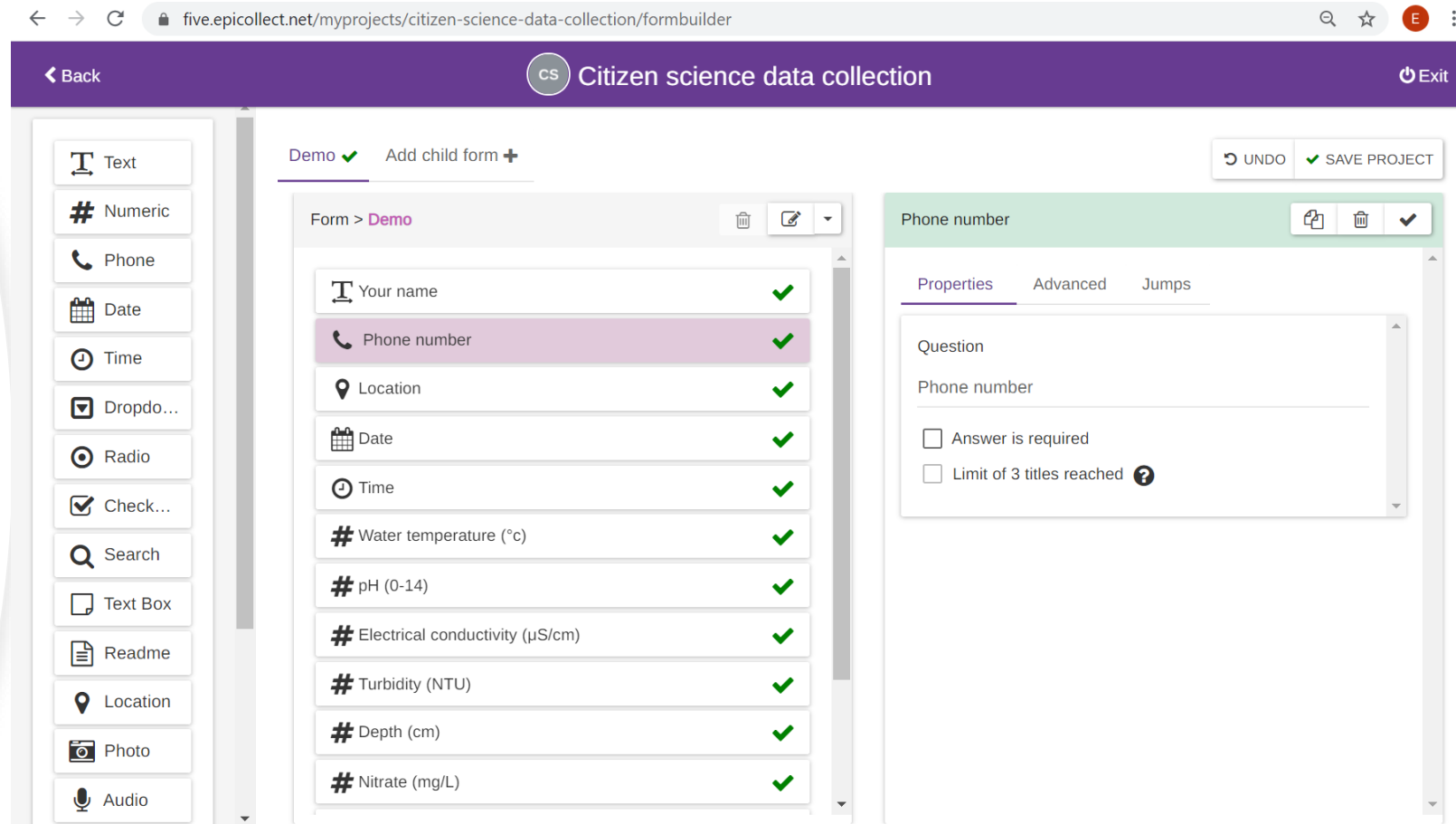
Readme

Text box

Photo/ Audio/ video

Features of the form builder

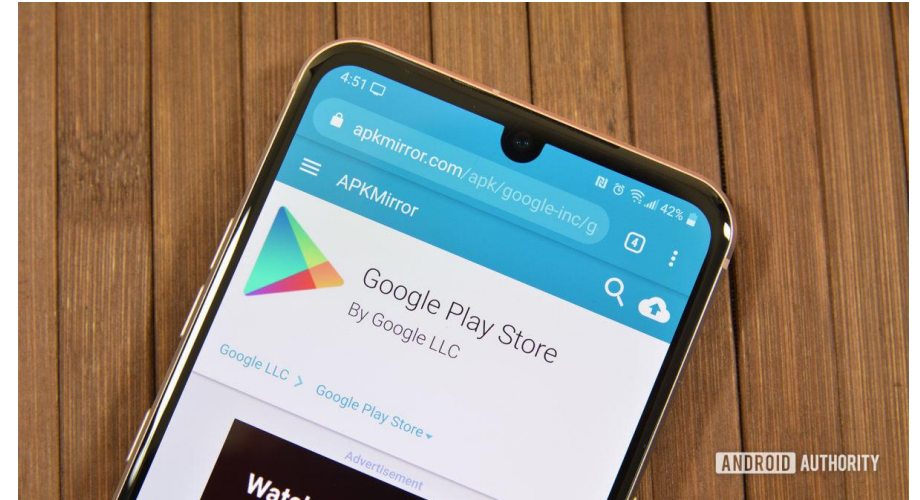
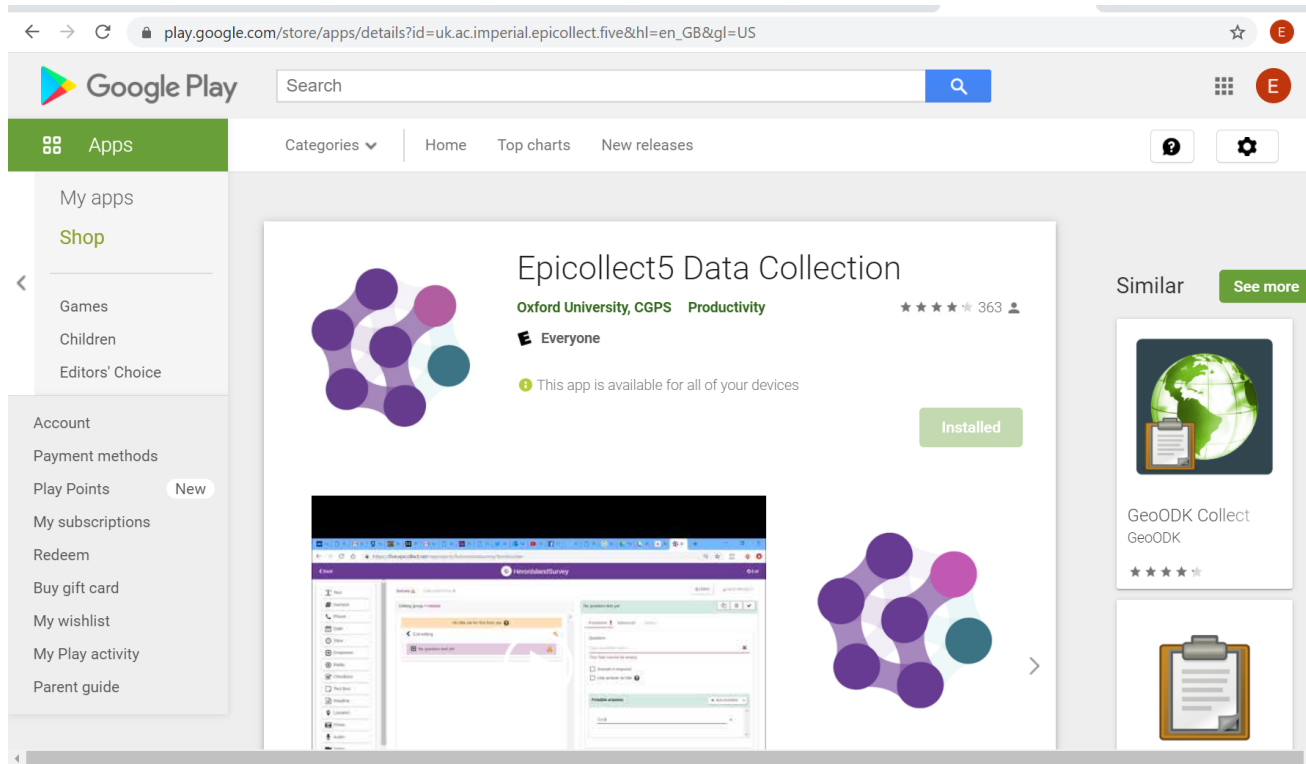
- Add, edit and delete questions
- Drag and move question order
- Say whether the answer is required
- Say whether the answer is to become a 'title' (aka an identifier)
- Look at advanced settings – lots more you can do!



The screenshot shows the 'formbuilder' interface for 'Citizen science data collection'. On the left is a sidebar with question types: Text, Numeric, Phone, Date, Time, Dropdo..., Radio, Check..., Search, Text Box, Readme, Location, Photo, and Audio. The main area displays a list of questions for a form named 'Demo', each with a green checkmark indicating it is added. The questions are: Your name, Phone number (highlighted), Location, Date, Time, Water temperature (°C), pH (0-14), Electrical conductivity (µS/cm), Turbidity (NTU), Depth (cm), and Nitrate (mg/L). On the right, the 'Phone number' question's settings are shown, including options for 'Answer is required' and 'Limit of 3 titles reached'.

The best way to understand how the form builder works is to have a play!

4. Download the mobile app



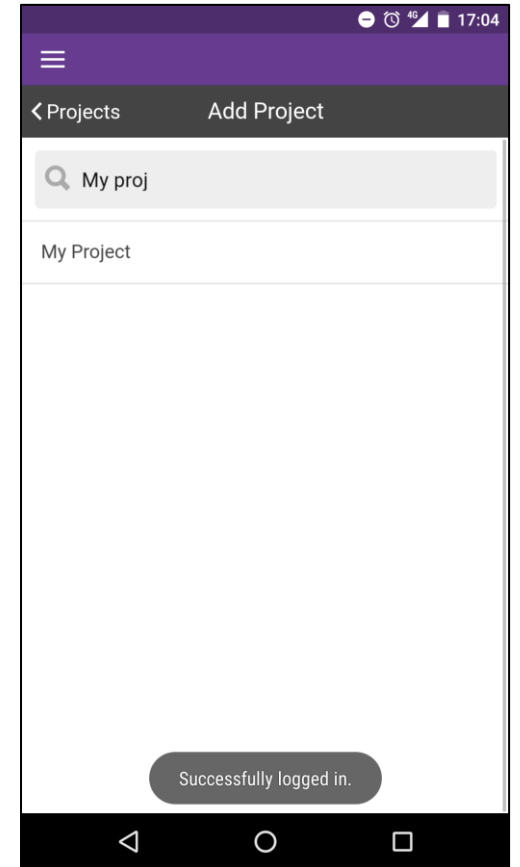
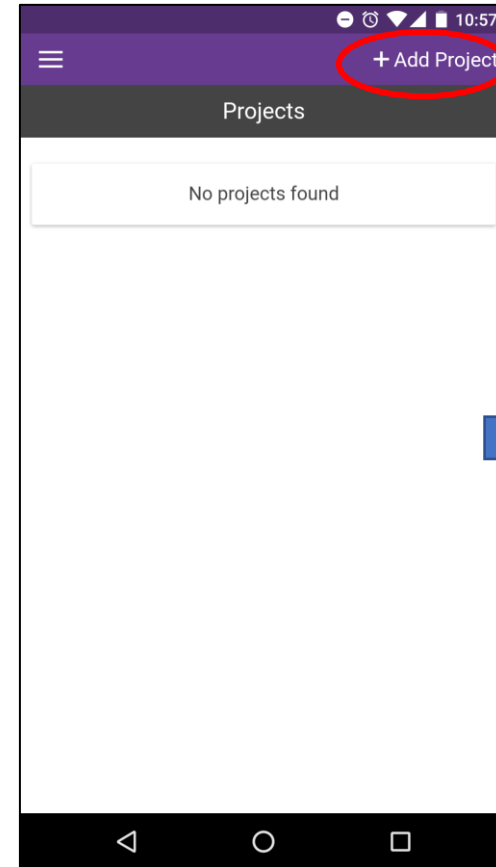
Search for and download the **Epicollect5 Data Collection** app from the Google Play store

Anyone adding data to your Epicollect project can use the mobile app. Users will access the form that has already been created (using the online app) and work through the questions in turn...

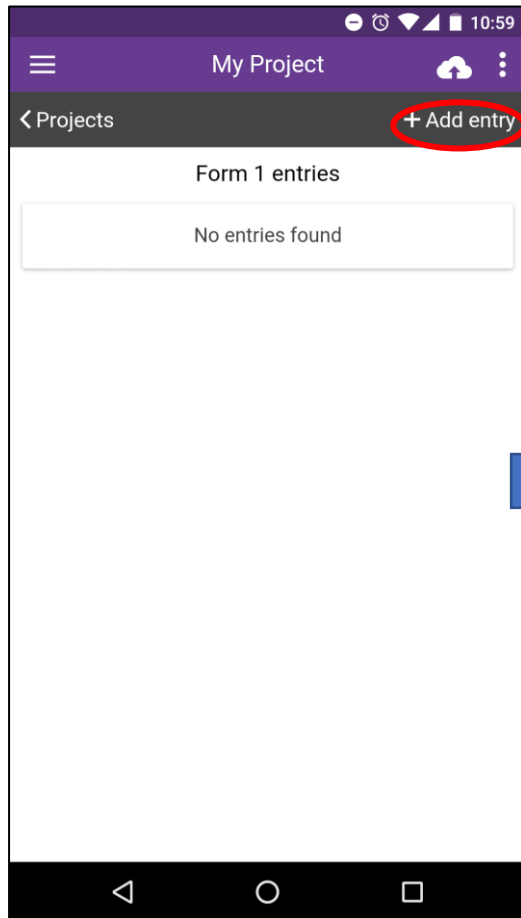
5. Access your project via the app



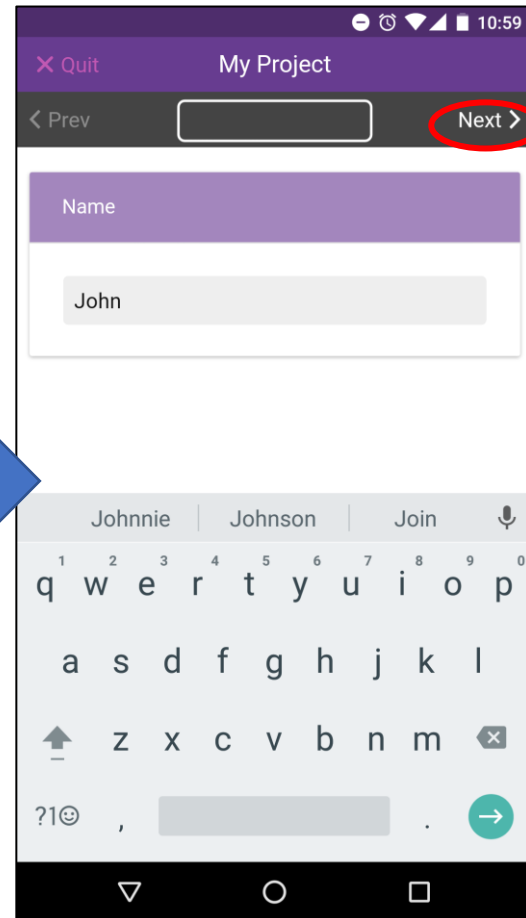
- Open the app on your mobile device and sign in
- Select **add project**
- Search for your project and select it once it appears



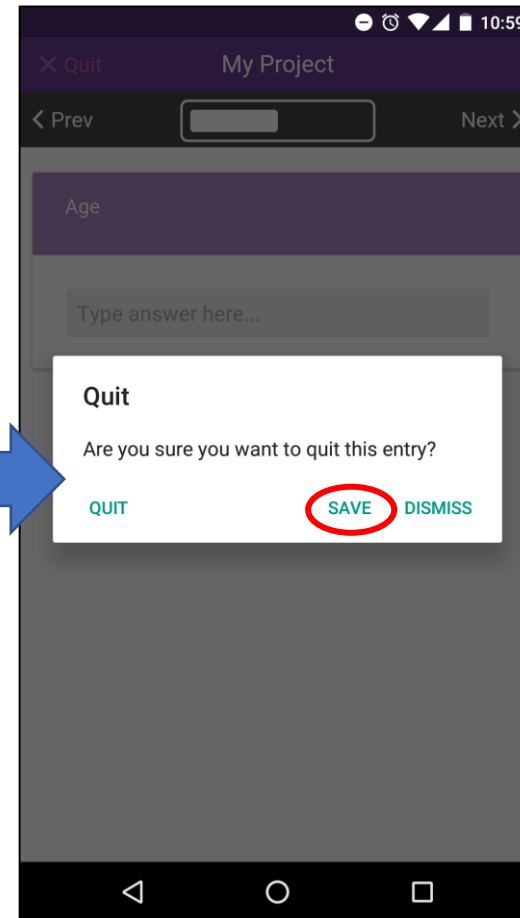
6. Enter data using the app



Select a project, click **+Add entry**



Follow the questions on the form, clicking 'next' to move on



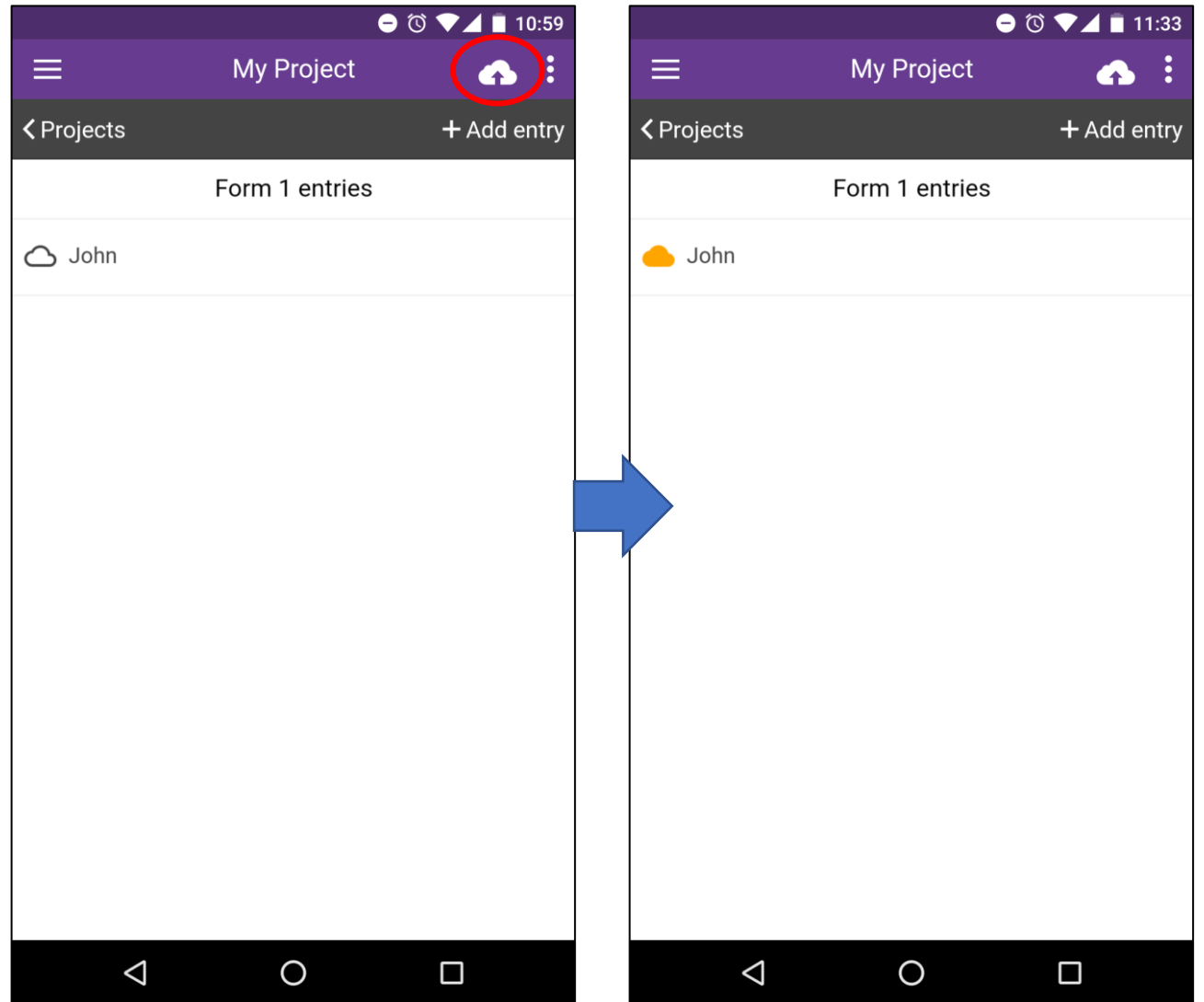
If you need to stop early, you'll be asked to save or dismiss



When you save it will appear in your entries for that project

...and upload to the web application

- You can add data when you're offline and upload them later when you're online
- When you've uploaded an entry, the cloud next to it will change colour
- You can edit or delete an entry on your phone but only before it's been uploaded
- The web application is the project data base where all data is stored



7. View project data

Data will automatically display as a list but you can view on a map too by hitting the map button in the top right-hand corner of the screen...

My Projects

SEARCH FOR PROJECT

SHOW ALL

e.vonbenzon@gmail.com

WC

WYE CITIZEN SCIENCE WATER ...

A project to collect citizen science water quality data from across the

Role: CREATOR

Created: 23 Mar 2021

active listed private

DETAILS VIEW

CS

CITIZEN SCIENCE DATA COLLE...

A platform to collect citizen science water quality data

Role: CREATOR

Created: 23 Feb 2021

active hidden private

DETAILS VIEW

Citizen science d... Demo

Download Table Map Exit

Add Demo Total: 3, 1/1

Filter by title

FROM: 23 FEB, 21 TO: 23 MAR, 21 NEWEST X

View	Delete	Edit	Title	Created At	Your name	Phone number	Location	Date	Time
			Elle 23/03/2021 15:47...	23rd Mar, 2021	Elle		51.817931, -2.969412	23/03/2021	15:47:
			Elle 23/02/2021 14:37...	23rd Feb, 2021	Elle		51.817907, -2.969381	23/02/2021	14:37:
			Elle 23/02/2021 14:28...	23rd Feb, 2021	Elle		51.817942, -2.969409	23/02/2021	14:28:

Upload Beta

Under **My Projects**, select **VIEW** to see all the data entries for the project you're interested in...

Interactive map view

The screenshot shows a web application interface for viewing data on a map. The browser address bar shows the URL: `five.epicollect.net/project/citizen-science-data-collection/data`. The page header includes a search icon, a star icon, and a red 'E' icon. Below the header, there is a navigation bar with a 'CS' logo, 'Citizen science d... Demo', and buttons for 'Download', 'Table', 'Map', and 'Exit'. The main content area is split into two parts: a table on the left and a map on the right. The table lists data points with columns for 'Created At', 'Your name', 'Phone number', 'Location', 'Date', 'Time', and 'Water temperature (°c)'. The map shows a cluster of purple data points near the location 'Llanddewi Rhydderch'. A tooltip is displayed over one of the points, showing the title 'Elle 23/02/2021 14:28:00'. A blue arrow points from the text 'Each point will be labelled with the 'title data' – set in the form builder' to the tooltip. Another blue arrow points from the text 'Many data points collected at the same location create a 'cluster'' to the cluster of points. A third blue arrow points from the text 'You can select an individual point to see a summary of the data' to the table.

Created At	Your name	Phone number	Location	Date	Time	Water temperature (°c)
23rd Feb, 2021	Elle		51.817942, -2.969409	23/02/2021	14:28:00	10

In viewing data as a map you can zoom in and out – select and view data on individual data points, change the base map, view and open clusters.

Each point will be labelled with the 'title data' – set in the form builder

You can select an individual point to see a summary of the data

Many data points collected at the same location create a 'cluster'

8. Download project data

Citizen science d... Demo

Download Table Map Exit

Add Demo Total: 3, 1/1

Filter by title

FROM: 23 FEB, 21 TO: 23 MAR, 21 NEWEST X

View	Delete	Edit	Title	Created At	Your name	Phone number	Location	Date	Time
			Elle 23/03/2021 15:47...	23rd Mar, 2021	Elle		51.817931, -2.969412	23/03/2021	15:47:
			Elle 23/02/2021 14:37...	23rd Feb, 2021	Elle		51.817907, -2.969381	23/02/2021	14:37:
			Elle 23/02/2021 14:28...	23rd Feb, 2021	Elle		51.817942, -2.969409	23/02/2021	14:28:

Upload Beta

Download

Mapping

EC5_AUTO

Timeframe

LIFETIME

Download Data

CSV JSON

DOWNLOAD

You can select a certain timeframe or a specific data you would like to download data from here

From the project data view hit the download button...
Download the data as a CSV or JSON file to your computer

Other useful features of Epicollect



Your project maps can be embedded on your website



You can also **upload** data to Epicollect via csv files if it's in the correct format for your project

Looking for further help and guidance?

Check out the Epicollect User Guide for everything you need to know:

<https://docs.epicollect.net/>

Still having trouble?

Ask an expert on the Epicollect5 Community Forum:

<https://community.epicollect.net/>

