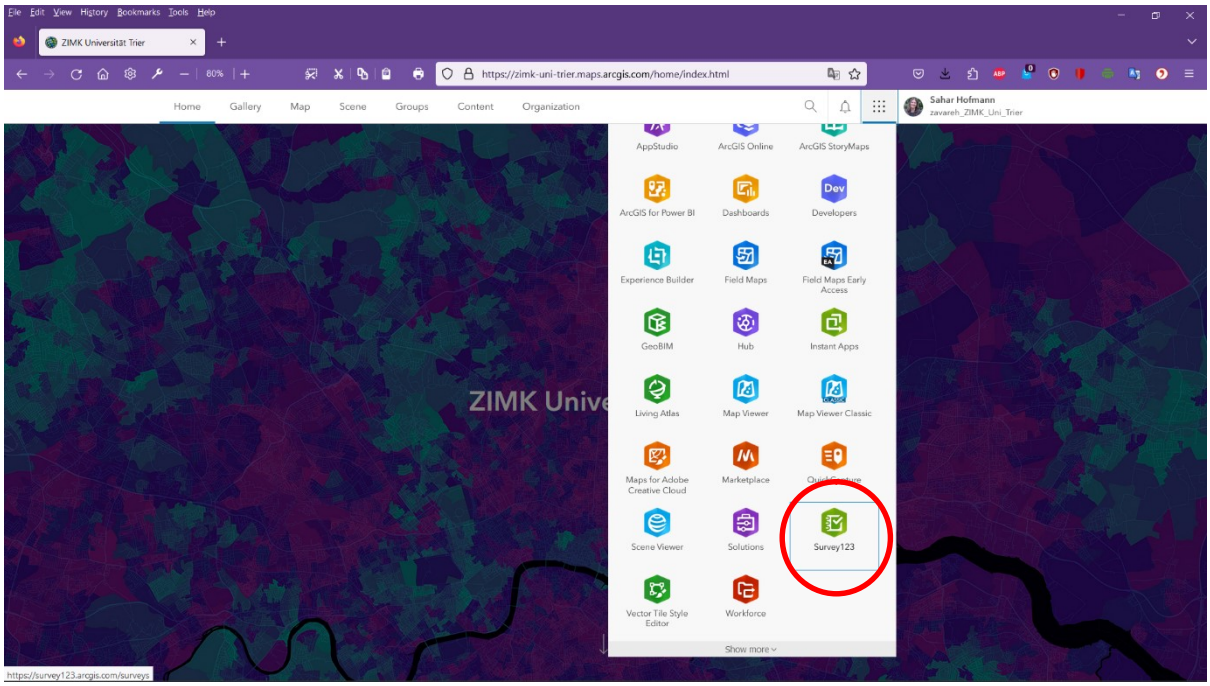
The Open Educational Resource (OER) Mapping with ArcGIS Survey123 is to provide an introduction and guide to develop qualitative and quantitative surveys and geographical maps with the surveys.

In this OER, we want to explore the recent flood event phenomena in Trier Ehrang that occurred in July 2021 to better understand flood recovery and reconstruction as well as disaster risk management at various scales (community, local government, regional government, state and federal governance systems). This OER links to other methods such as ethics of research, conducting interviews, collecting water and soil samples, and other forms of metadata that can be used to produce maps such as total number of homes under construction or the number of reconstruction resources needed.

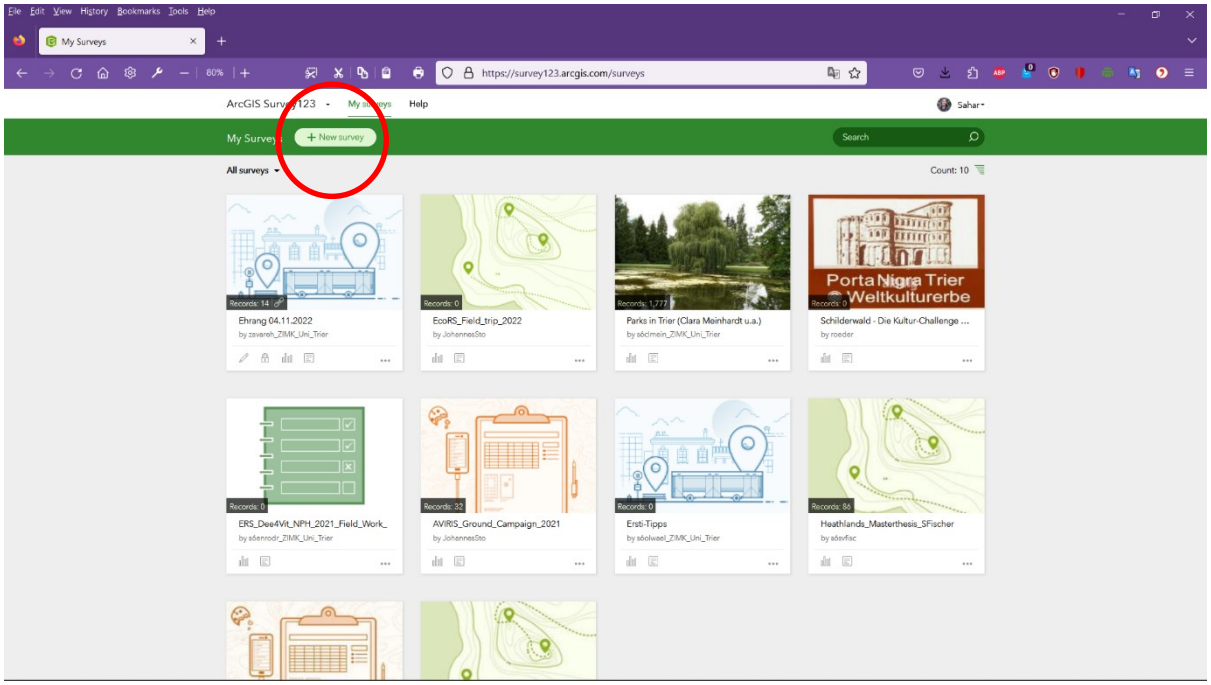
This Survey123 guide consists of two parts: (1) first to create a Survey123 survey for field data collection, and (2) the second part provides a guide to show how to use the survey data from the Survey123 App to create a completed map for written and communication use.

Part 1: Creating a Survey to Make a Survey123 Map

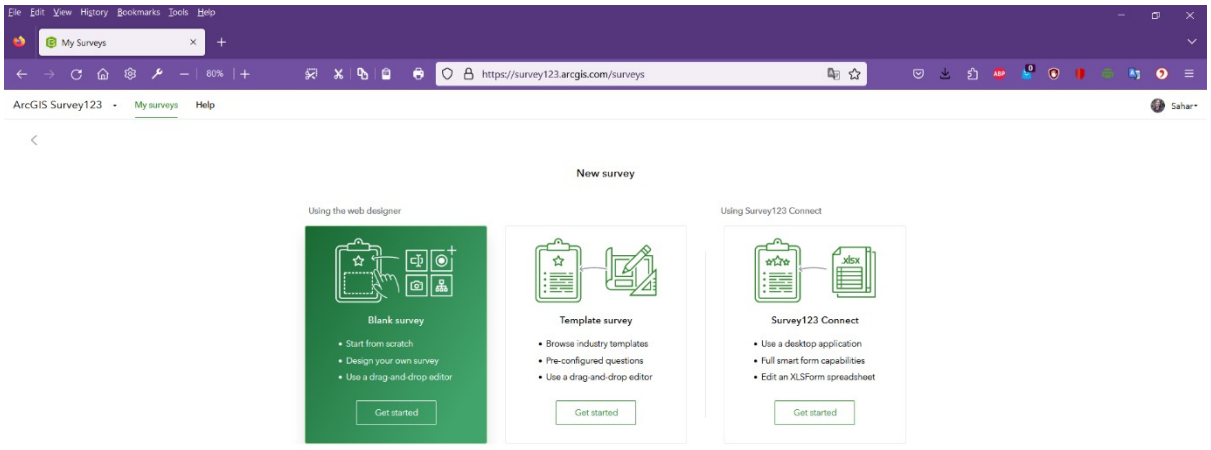
Step 1: Log into your ArcGIS online account and select Survey123 from the app content.



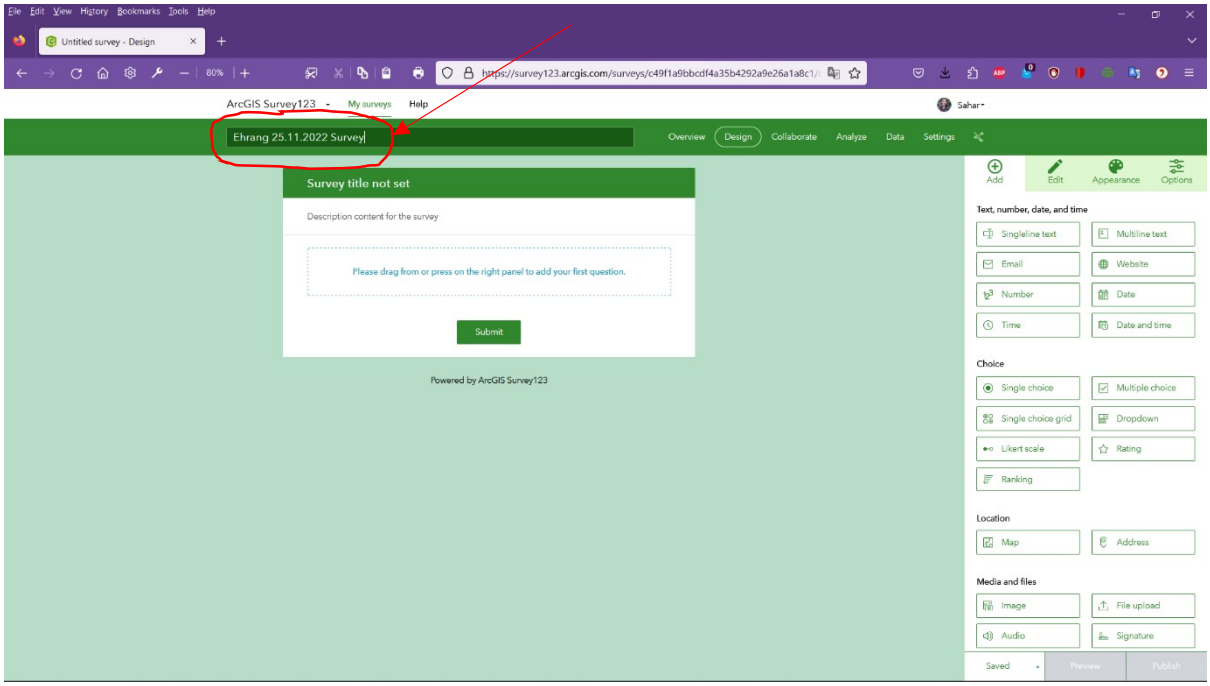
Step 2: Select New Survey



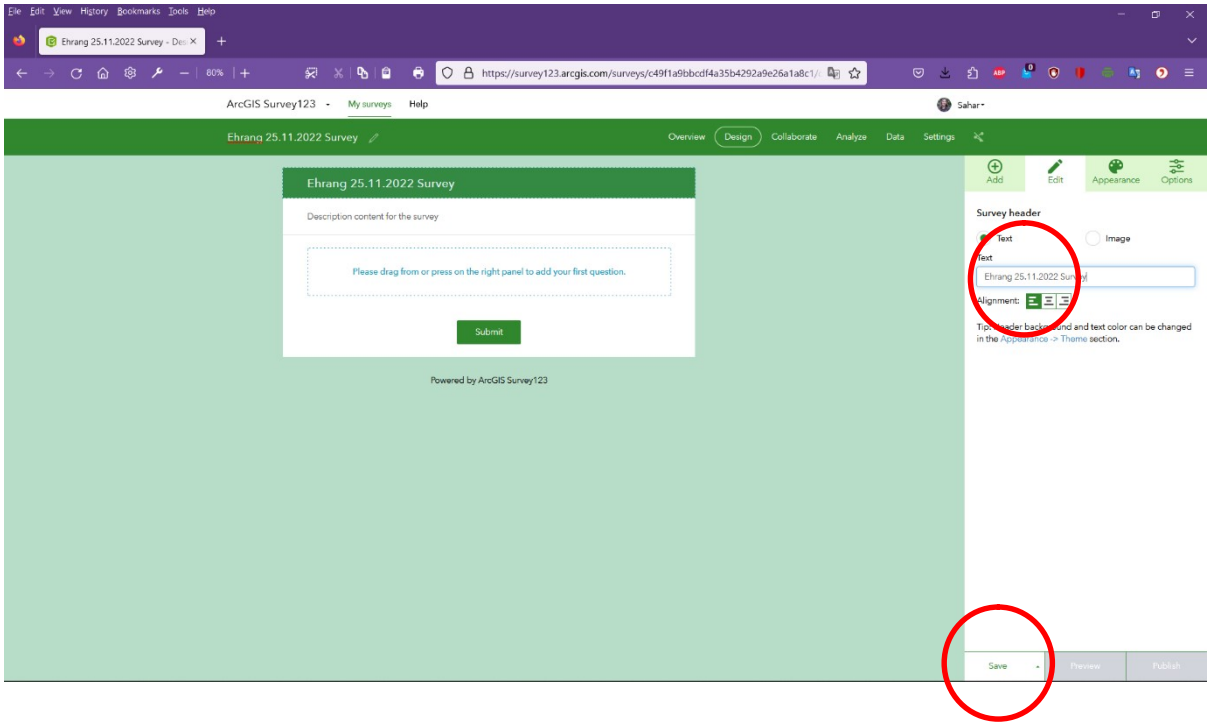
Step 3: Choose Blank Survey to begin creating a basic data collection survey to gather: Date/time, GPS location, images, audio recordings, notes, items to count.



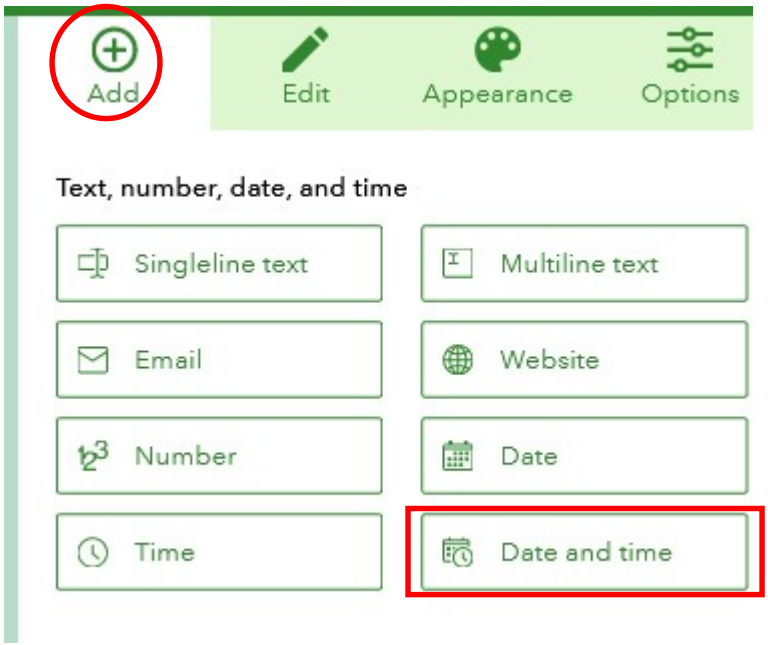
Step 4: Edit the name of the survey in the green field



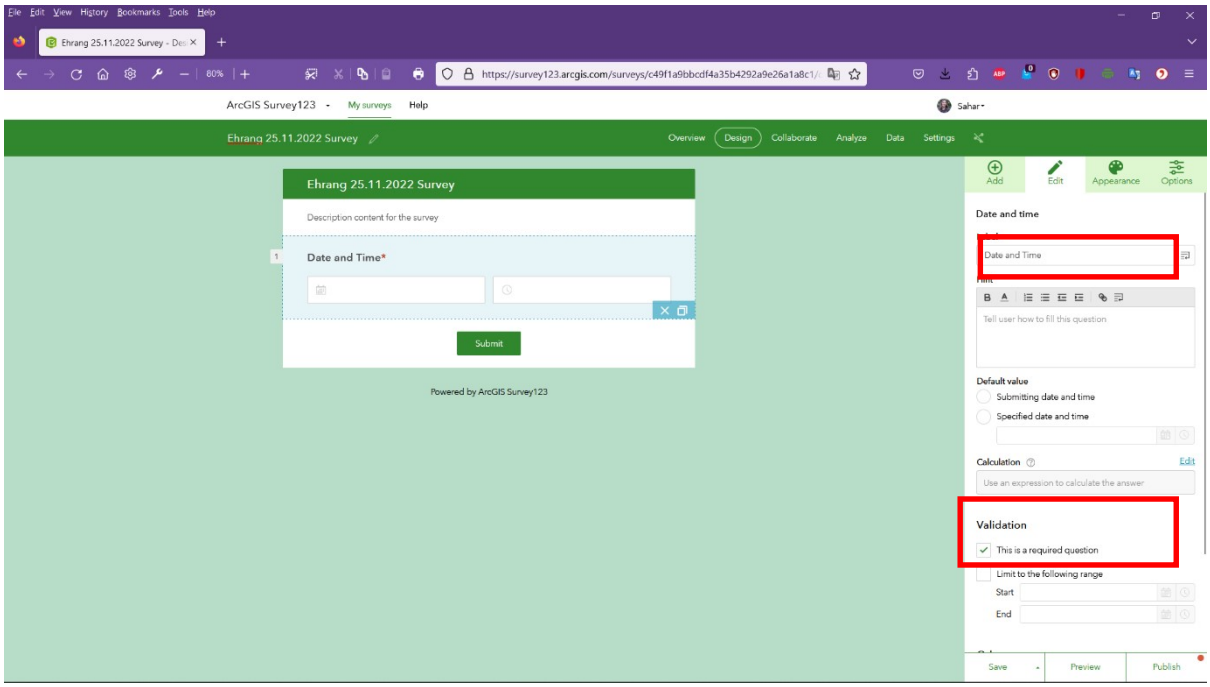
Additionally, you will need to edit the survey name here and choose save.



Step 5: We will add the survey fields of data we wish to collect. First, choose Add to create the survey data to be collected and select date and time.

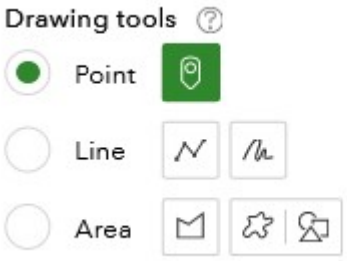


Provide a name of date and time for the label and choose that the item is required and save, then go back to Add.

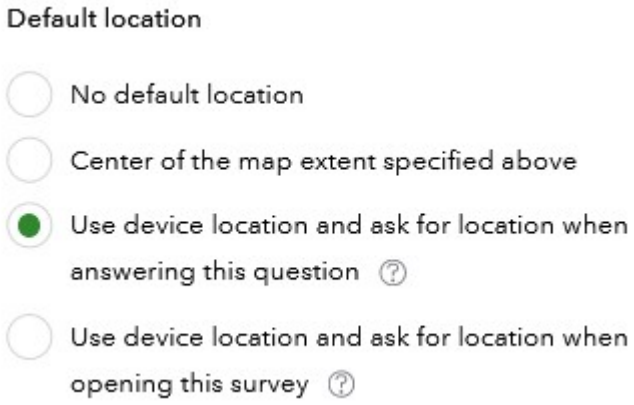


Add a location with GPS using Map under Location

We will choose Point in order to collect the GPS coordinates directly from the device (e.g. mobile phone or tablet).

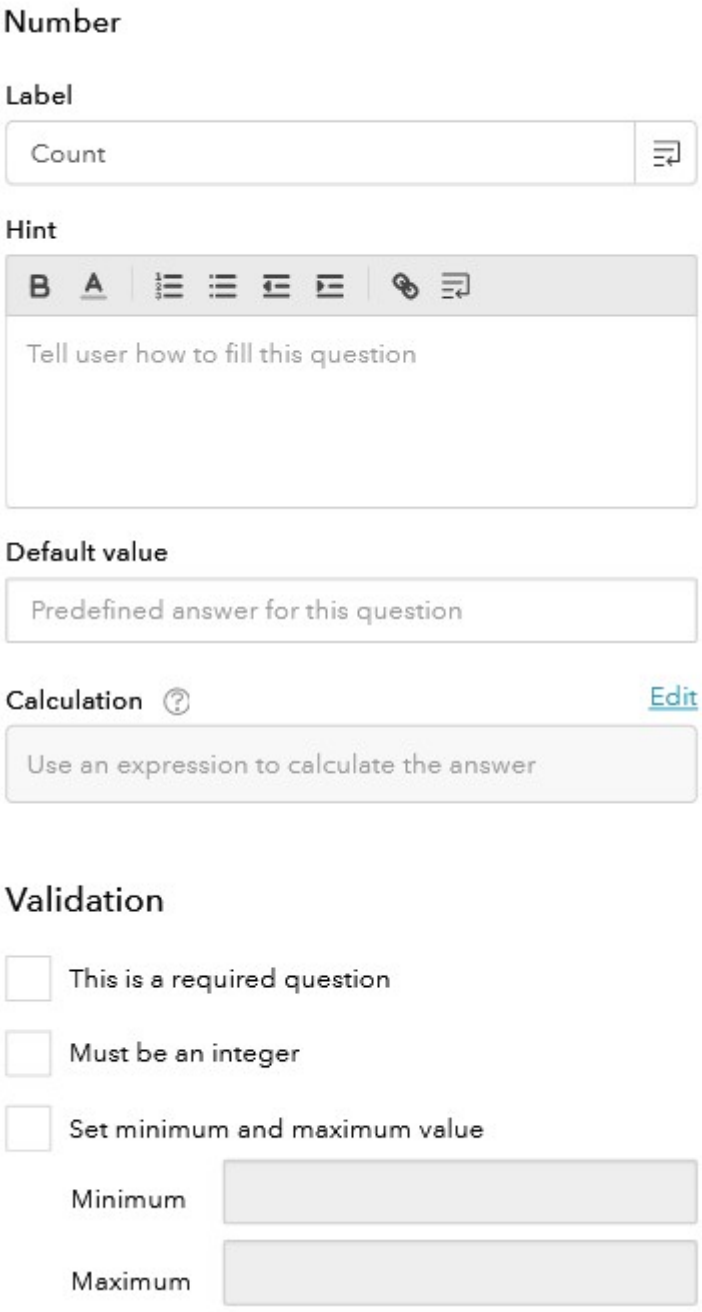


And then we will choose use device location when answering the question.

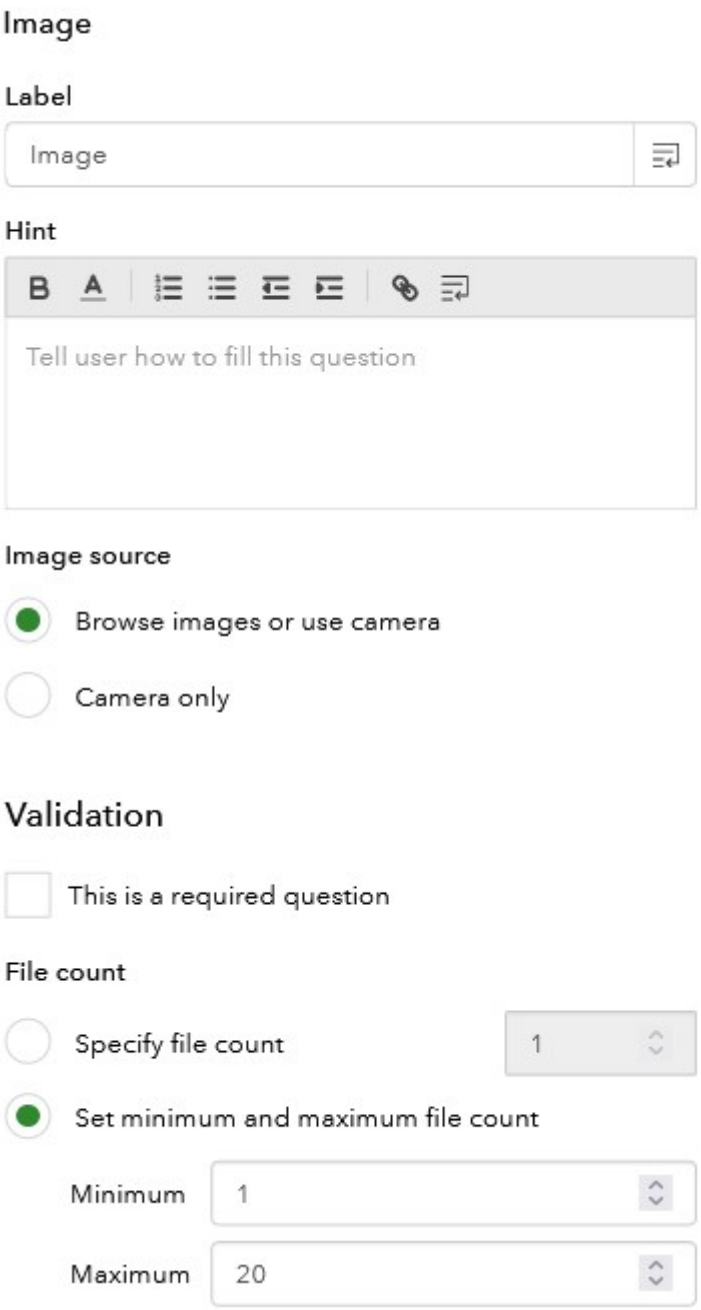


This will be required and we will save again, then choose Add.

We will choose a Number and label it as a count and save, return to Add. Please note that this is not a required question because we may or may not need this data for each survey collected.

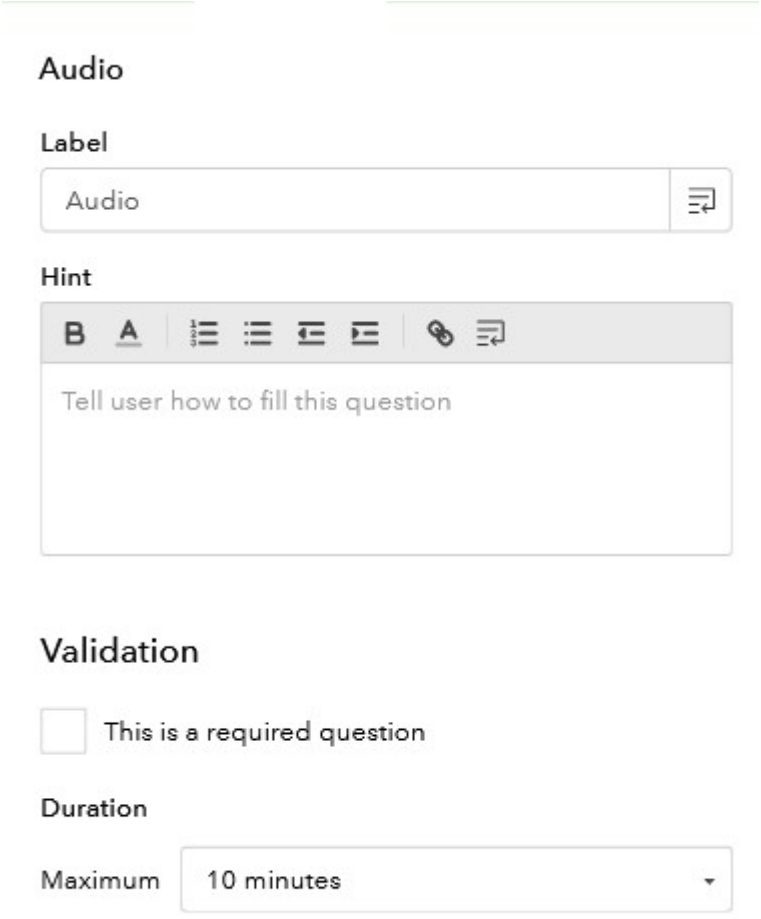


We will choose to add image; add a label as image, choose browse images or use camera, we will not require the question, and allow up to 20 images at once to be uploaded, and now save then return to Add.

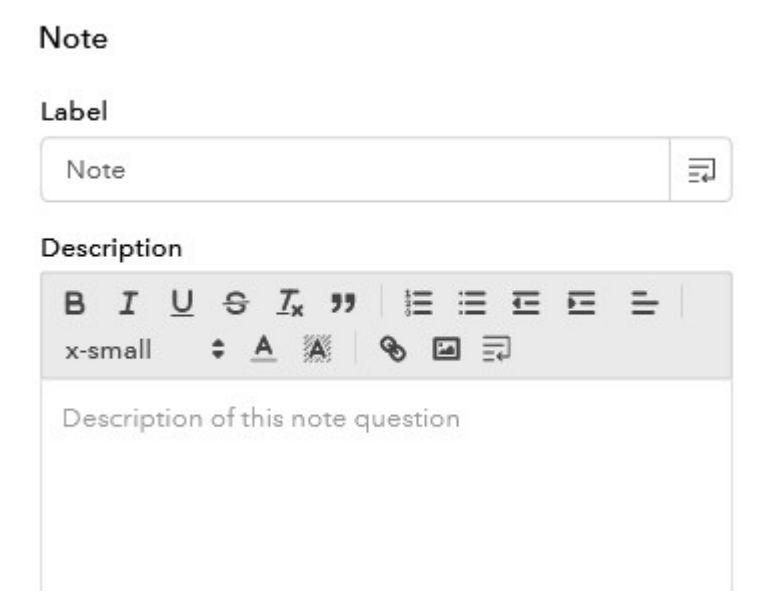


Please note the default max size is 10MB

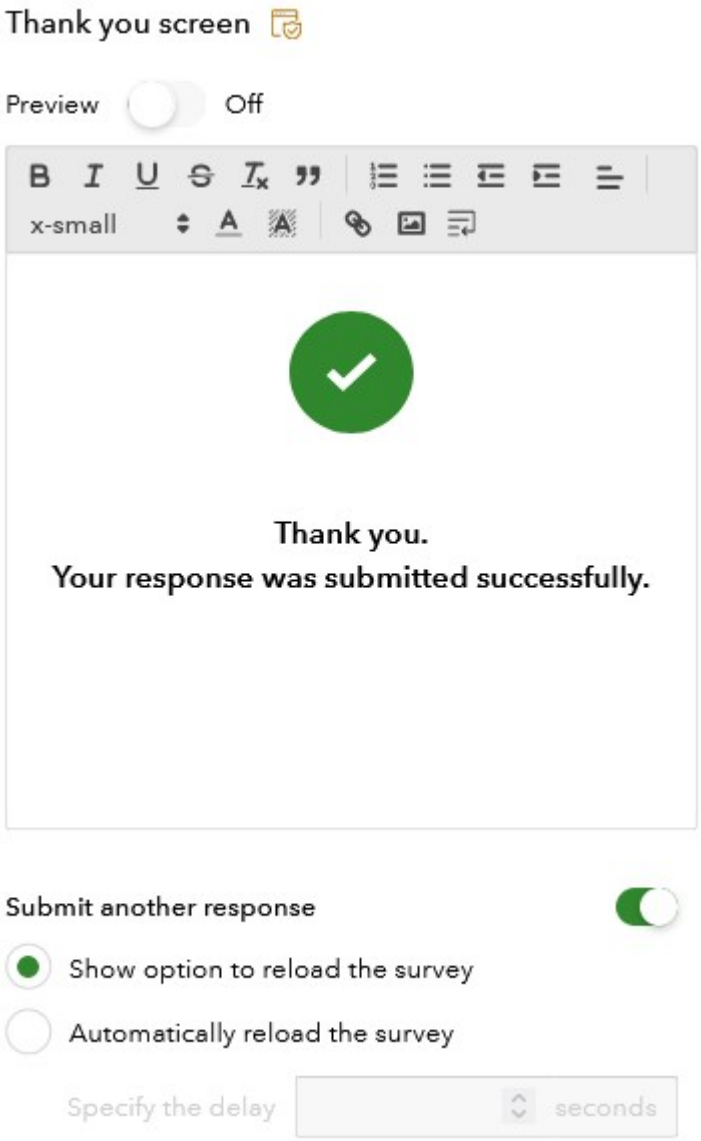
We will now add Audio and use the label as audio and keep the default time limit to 10 minutes, save and return to Add.



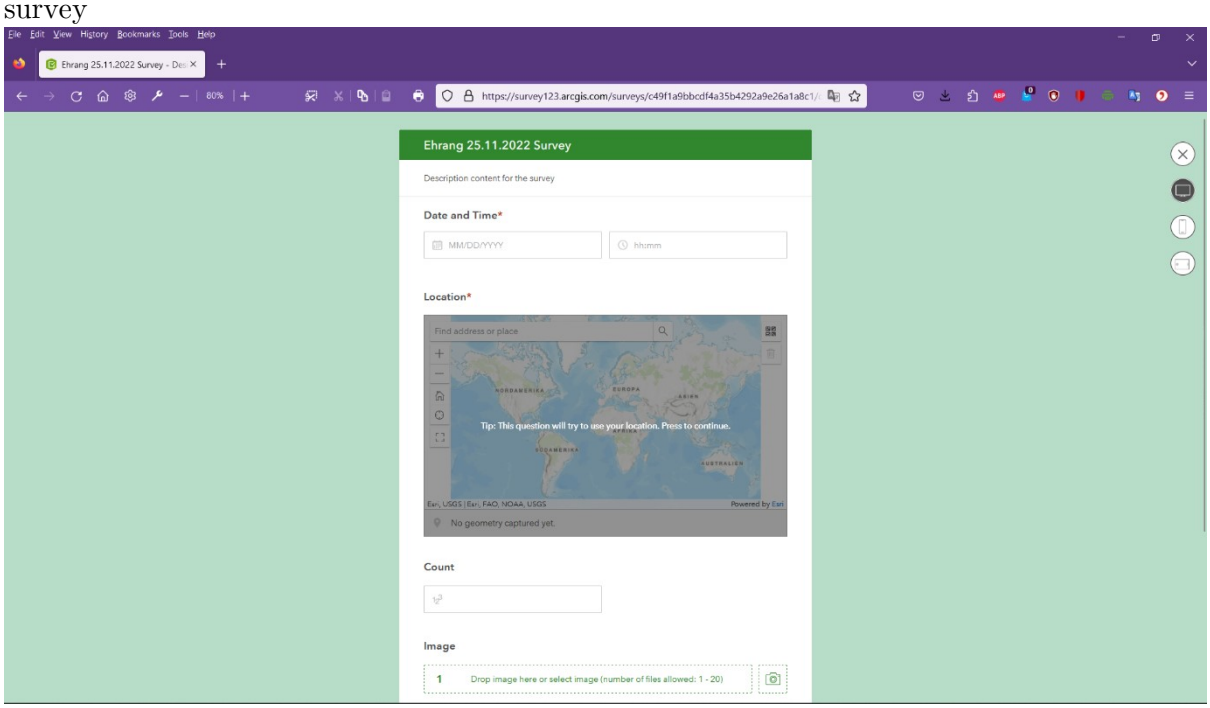
We will add a Note with a label as Note, save.



We will go to Option and mark the option to reload the survey and submit another response.

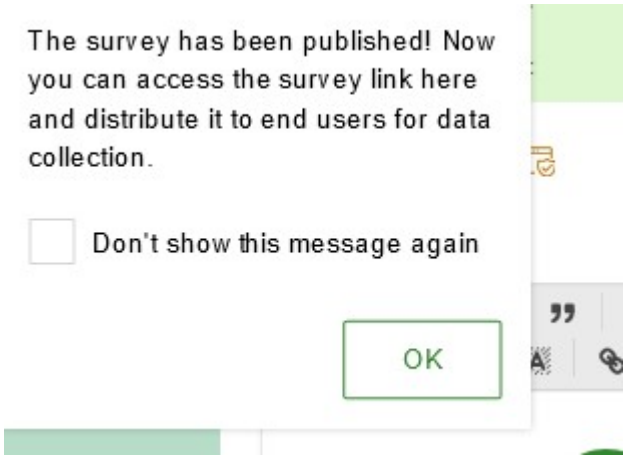


Step 6: Save your survey and we will choose to preview the survey before we Publish the survey

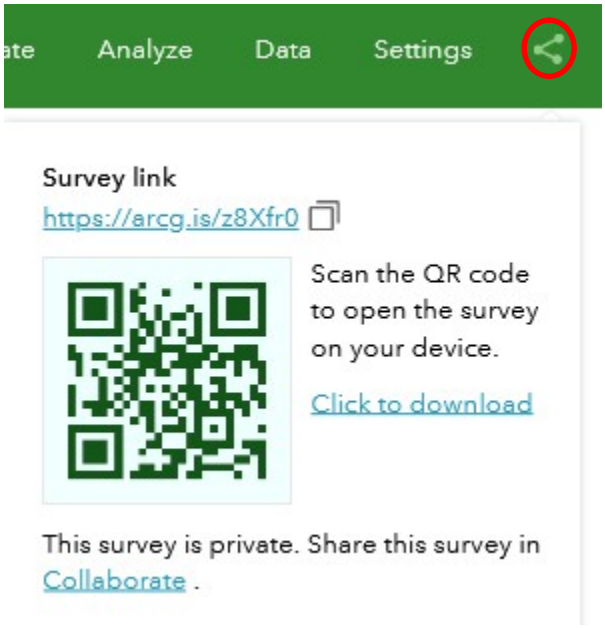


If you are satisfied with the survey, close the preview and choose publish

Once it is ready we will receive this message



To get your QR code, select the arrows. This is also where you will need to change the settings for the survey if you wish to share the survey with other team members to use the survey on their device with the QR code.



You should be able to access the survey also from your App.

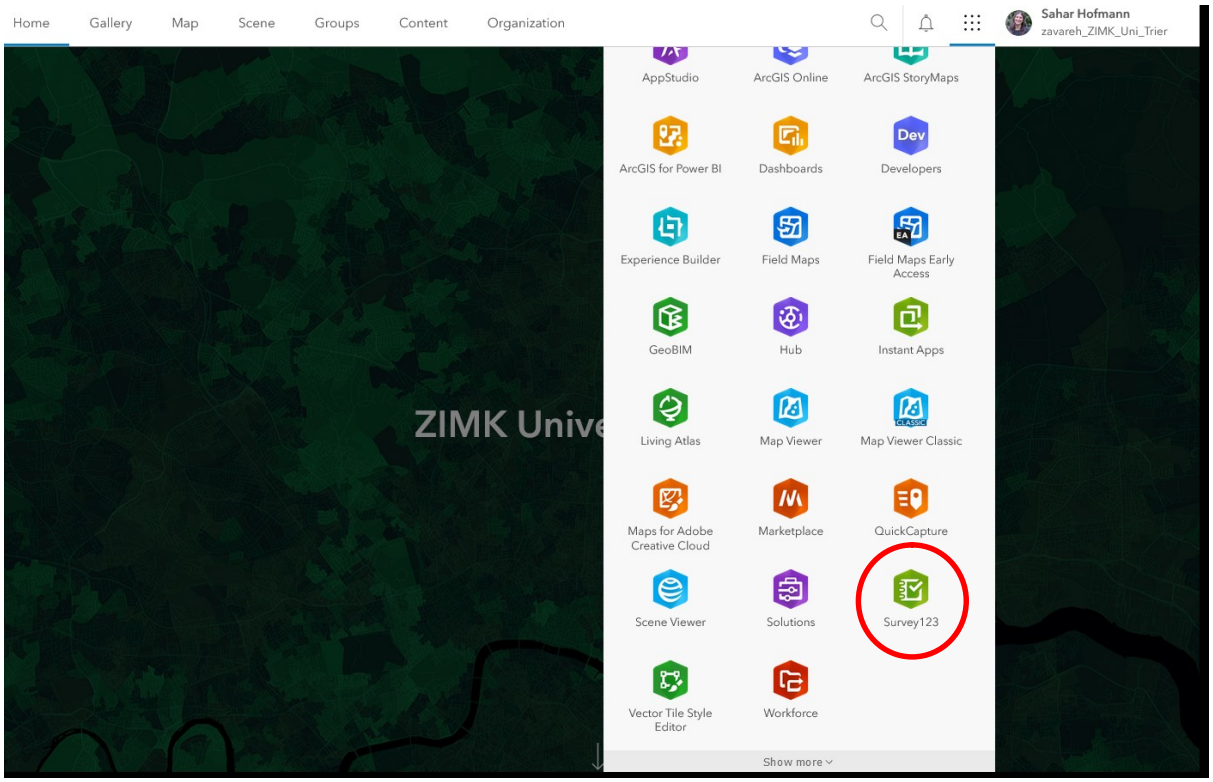
Recommended Videos

https://www.youtube.com/watch?v=mxwF0k39fG0

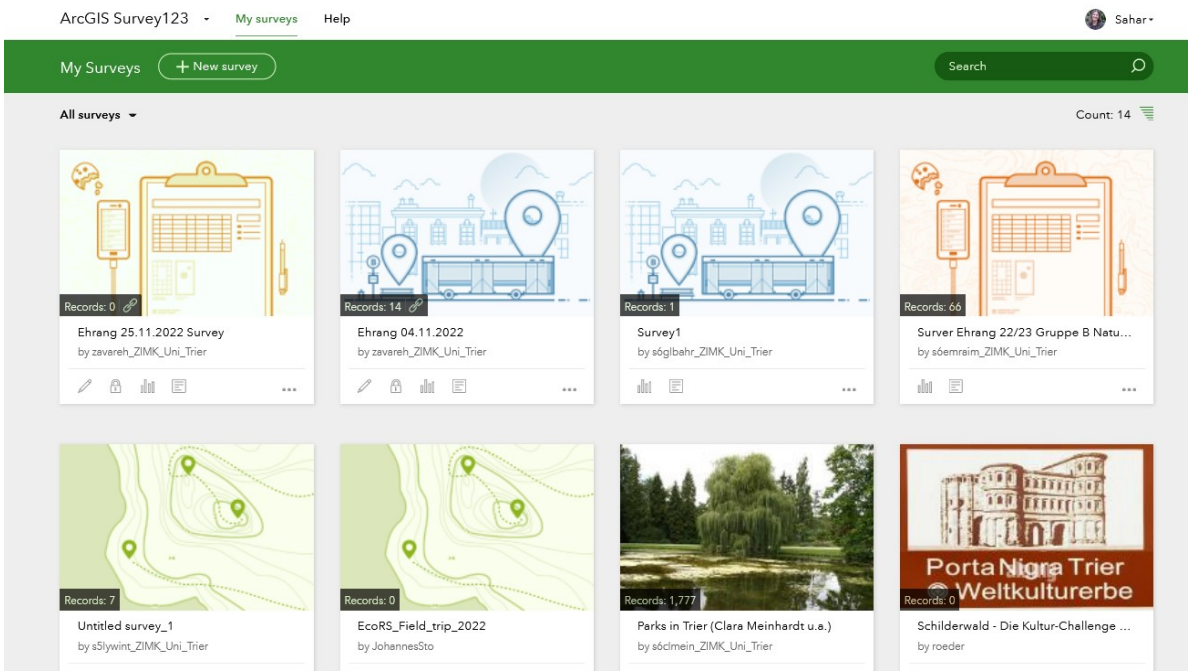
https://www.youtube.com/watch?v=v2YhzW0t-F8

Part 2: Making a Map With Your Survey123 App Data

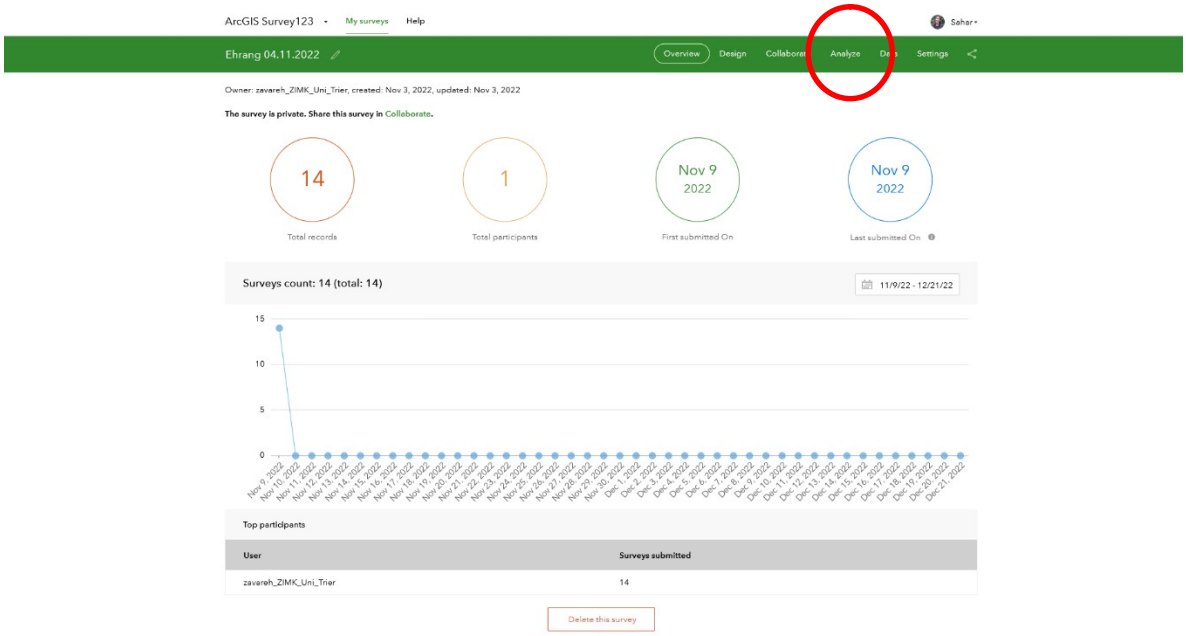
Step 1: Log into your ArcGIS online account and select Survey123 from the app content.



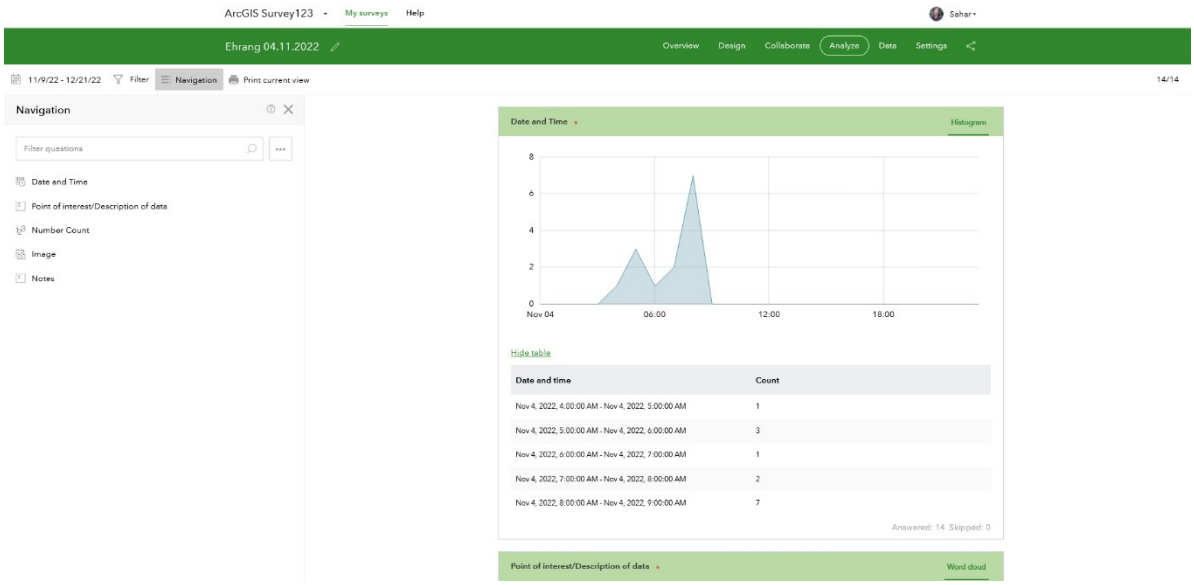
Step 2: Select the survey you wish to begin working with

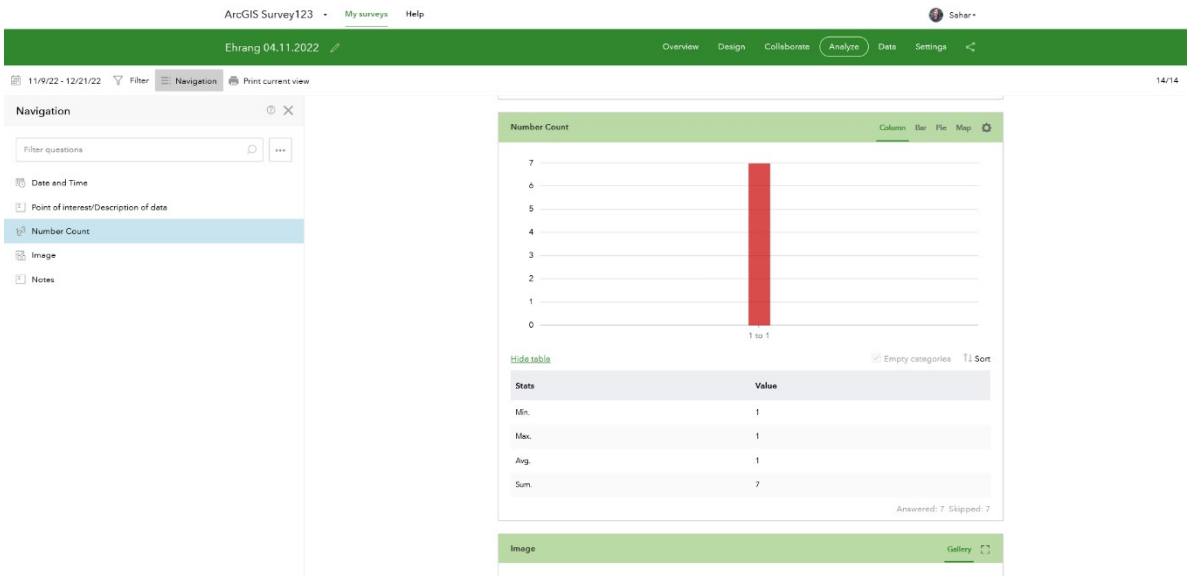


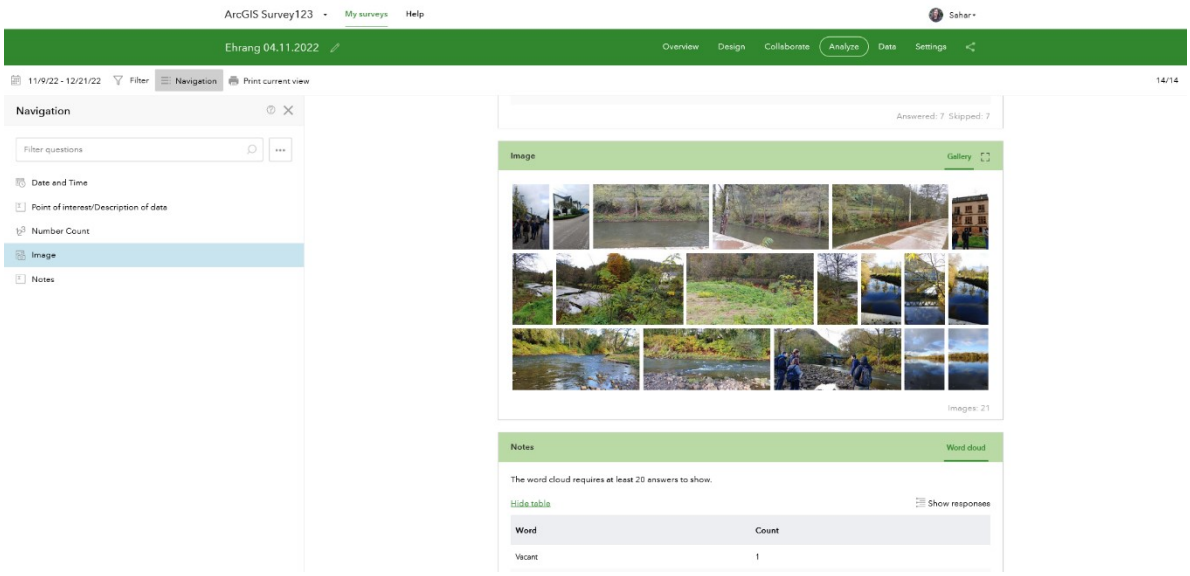
Step 3: Once you select the survey you will be shown the following information: the total number of records collected, the number of participants, when the first record and last record was recorded and by whom (users auhtorized to access the survey). Now choose the Analyze tab to see what data is available.



Step 4: Now scroll through the survey to see each record and data collected from each participant or location data. The table on the left provides an outline of all the available data to quickly access if needed. We can also use the filter/search feature to look for certain keywords or data points.




ArcGIS Survey123
My surveys
Help
Sahar
Ehrang 04.11.2022
Overview
Design
Collaborate
Analyze
Data
Settings
11/9/22 - 12/21/22
Filter
Navigation
Print current view
14/14
Navigation
Filter questions
Date and Time
Point of interest/Description of data
Number Count
Image
Notes
Number Count
Column
Bar
Pie
Map
7
6
5
4
3
2
1
0
1 to 1
Hide table
Empty categories
Sort
Stats
Value
Min.
1
Max.
1
Avg.
1
Sum.
7
Answered: 7 Skipped: 7
Image
Gallery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Overview
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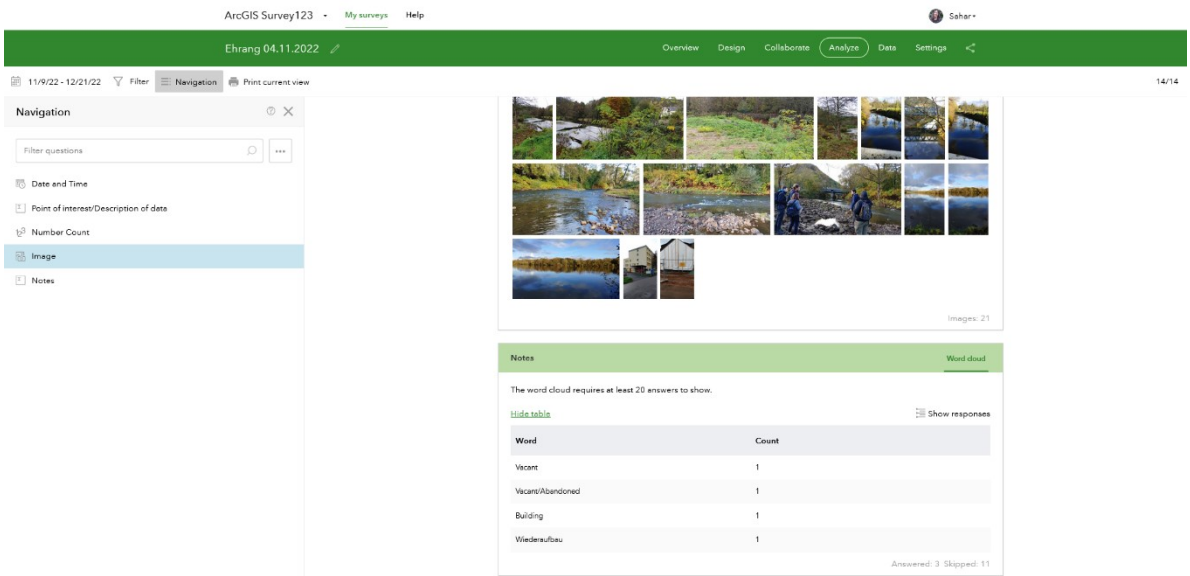
Analyze
Data
Settings
11/9/22 - 12/21/22
Filter
Navigation
Print current view
14/14
Navigation
Filter questions
Date and Time
Point of interest/Description of data
Number Count
Image
Notes
Answered: 7 Skipped: 7
Image
Gallery
Images: 21
Notes
Word cloud
The word cloud requires at least 20 answers to show.
Hide table
Show responses
Word
Count
Vacant
1


ArcGIS Survey123
My surveys
Help
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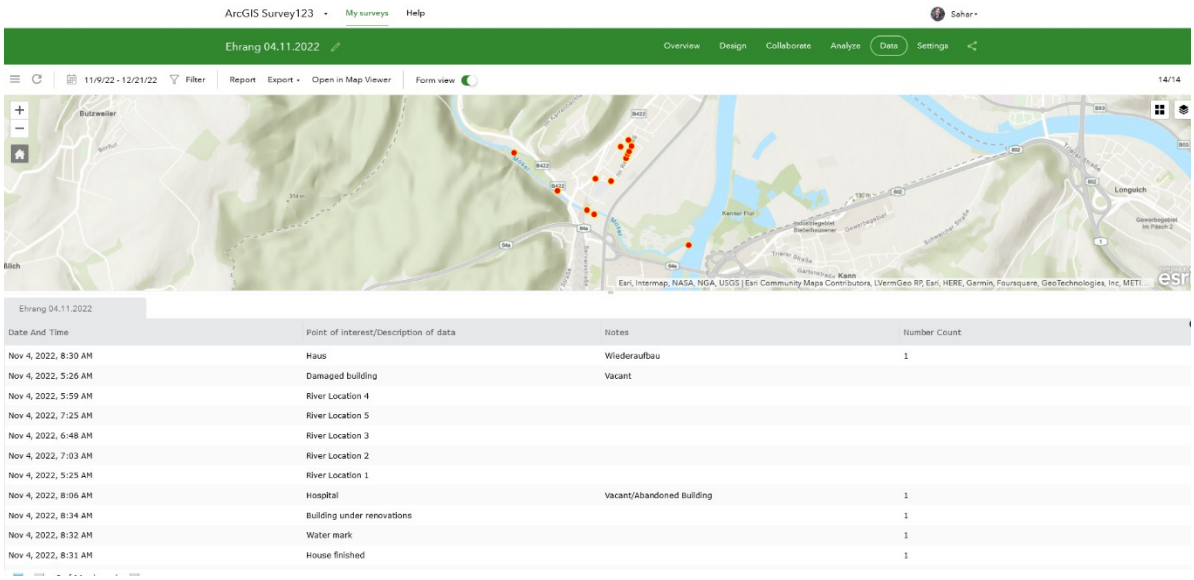
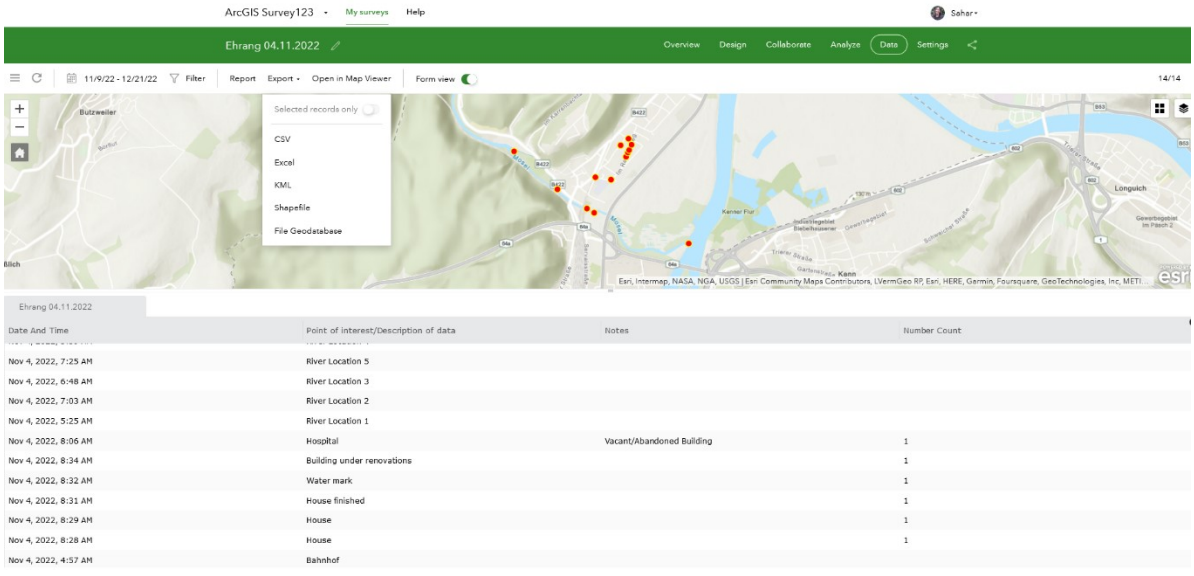
Overview
Design
Collaborate
Analyze
Data
Settings
11/9/22 - 12/21/22
Filter
Navigation
Print current view
14/14
Navigation
Filter questions
Date and Time
Point of interest/Description of data
Number Count
Image
Notes
Images: 21
Notes
Word cloud
The word cloud requires at least 20 answers to show.
Hide table
Show responses
Word
Count
Vacant
1
Vacant/Abandoned
1
Building
1
Wiedersaufbau
1
Answered: 3 Skipped: 11

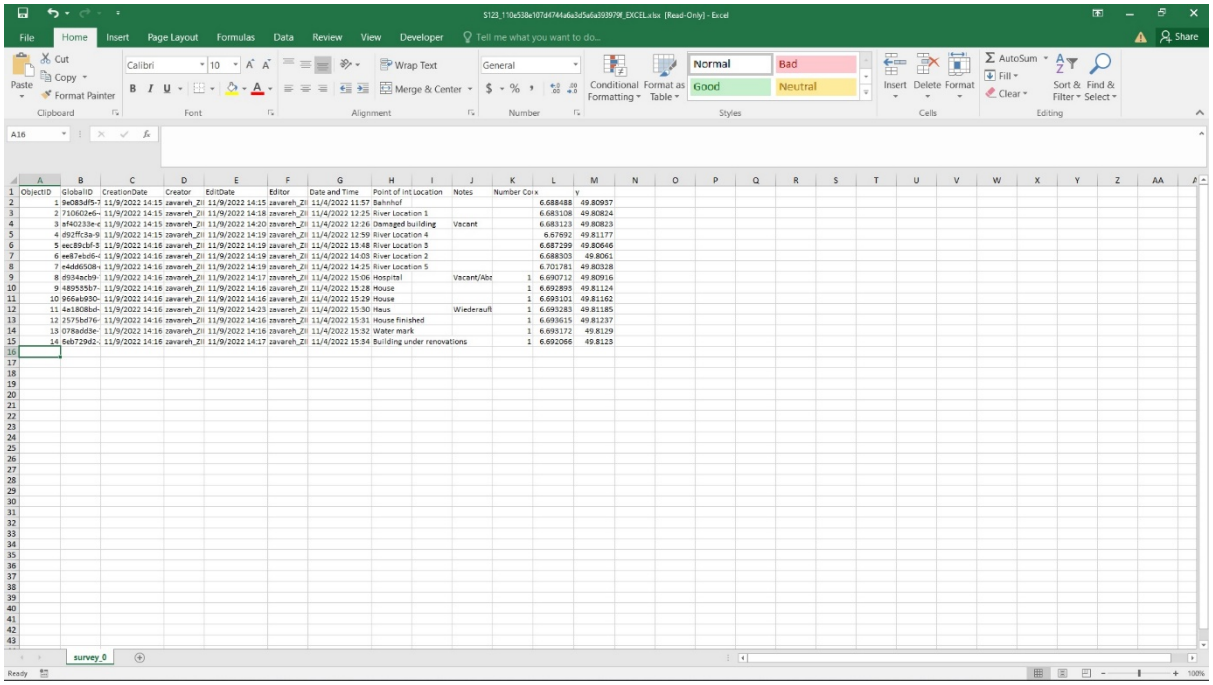
Step 5: Now choose the Data tab, next to Analyze. We can now see each survey record as a data point on the map and corresponding data records in the table.

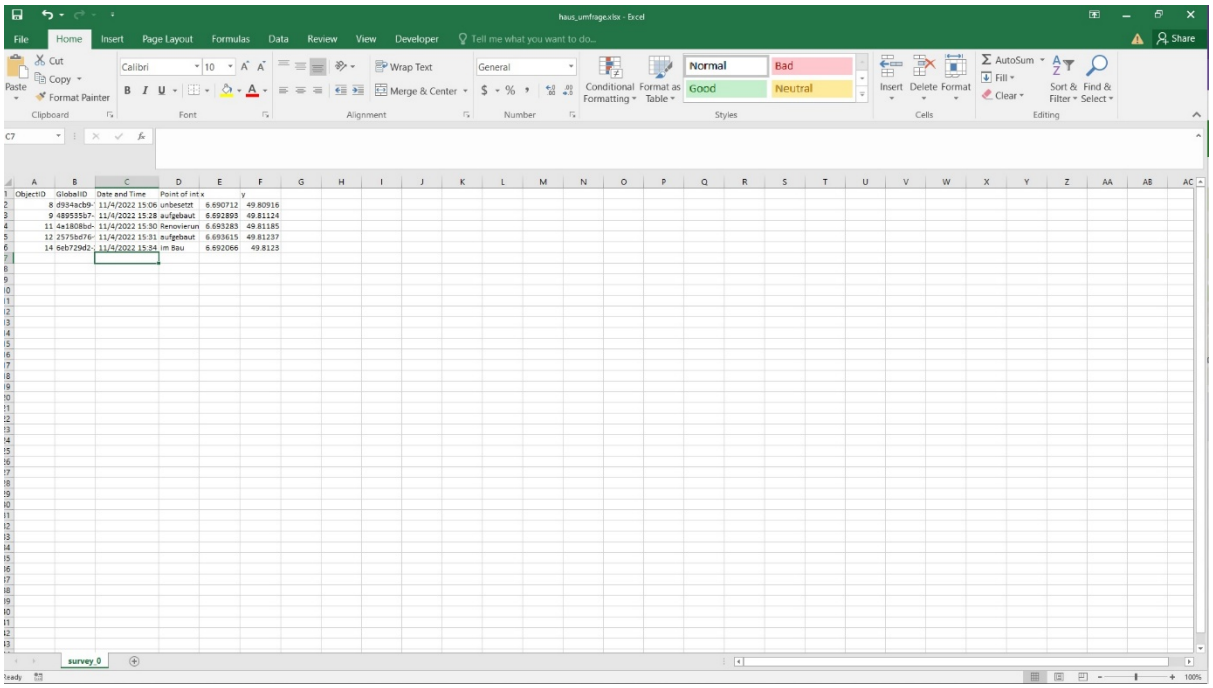


Step 6: We will now choose to export the record as an Excel file so that we may analyze the data separately. This also allows us to create different kinds of map or new maps that are not part of the original survey. We may want to do this when we only want to show one parameter from our survey but also combine it with other indicators from other data collected or other data sources.

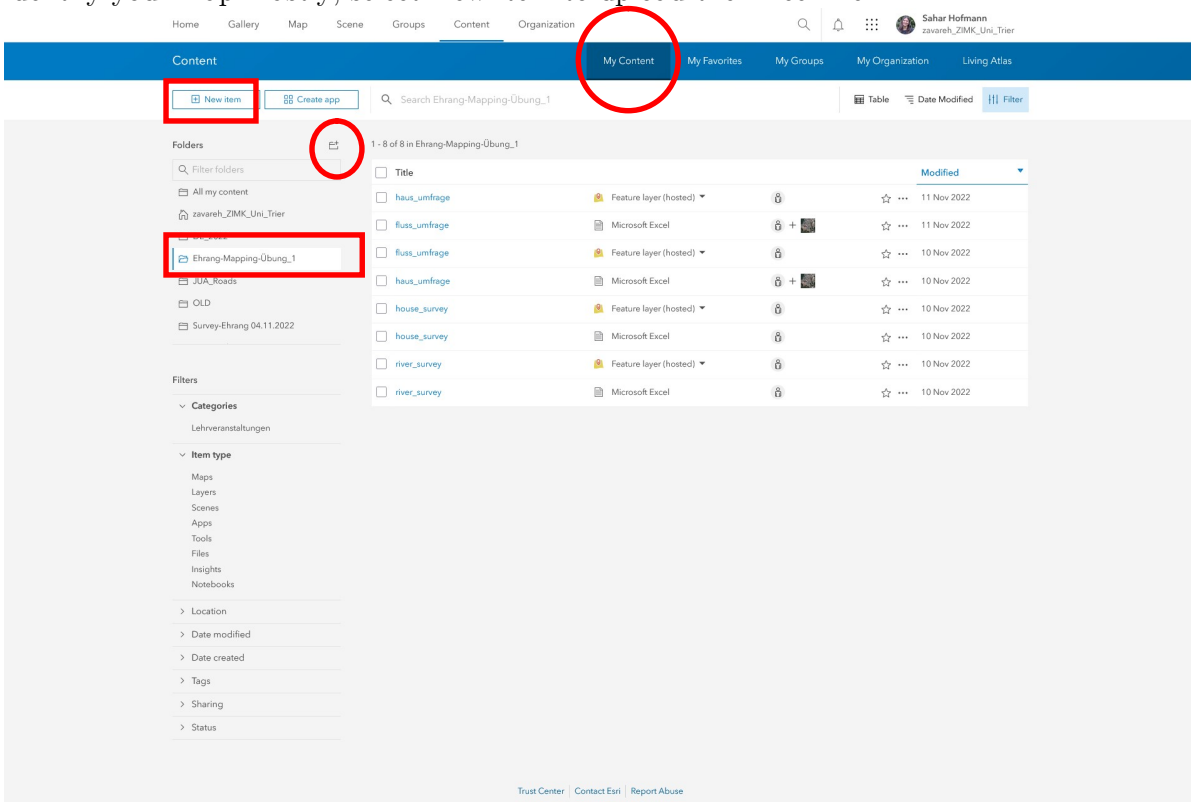


Step 7: We now can view the Excel file as table of all the records. Let us edit the table to only include the housing data records. We will also edit the table to include the indicator we wish to map for each house under the Points of Interest column. We will need to keep the GlobalID, date and time, x and y points in the table. We will rename this file as housing_survey.xlsx

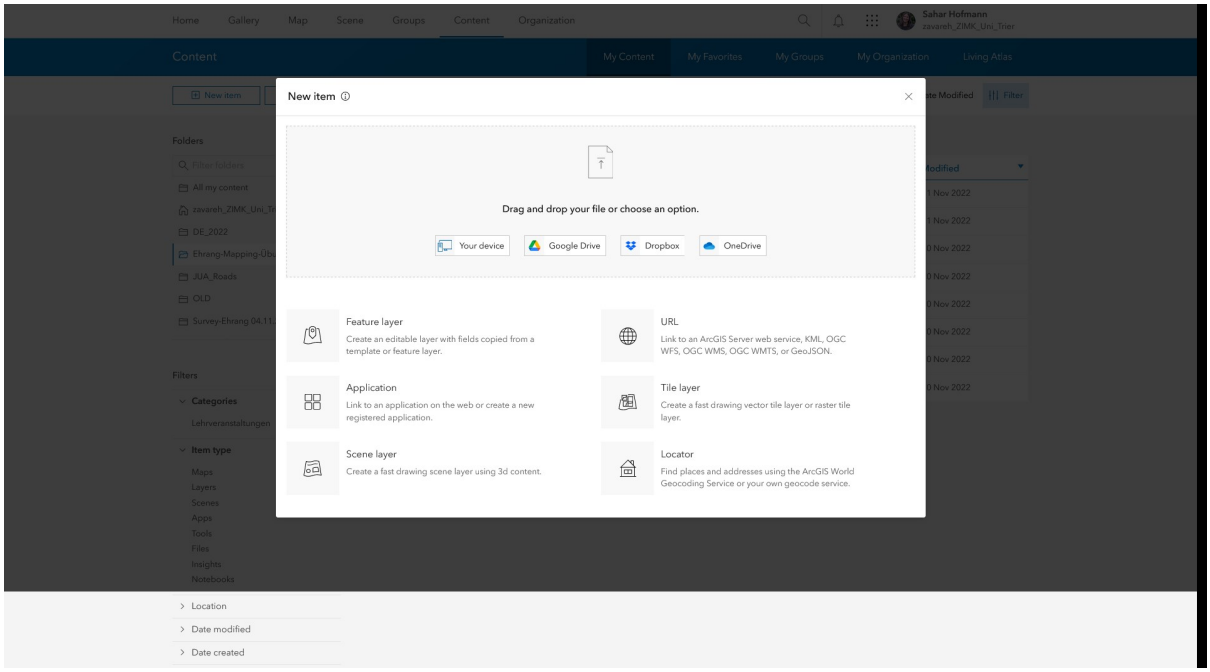


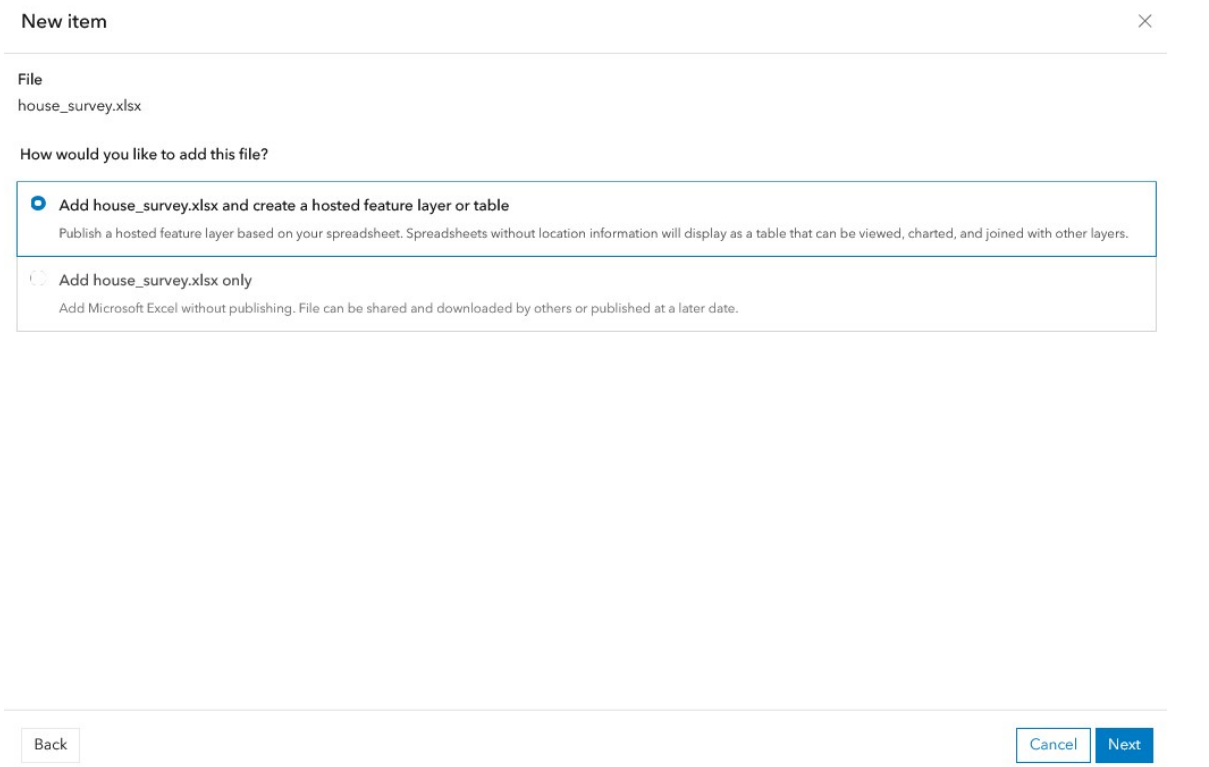


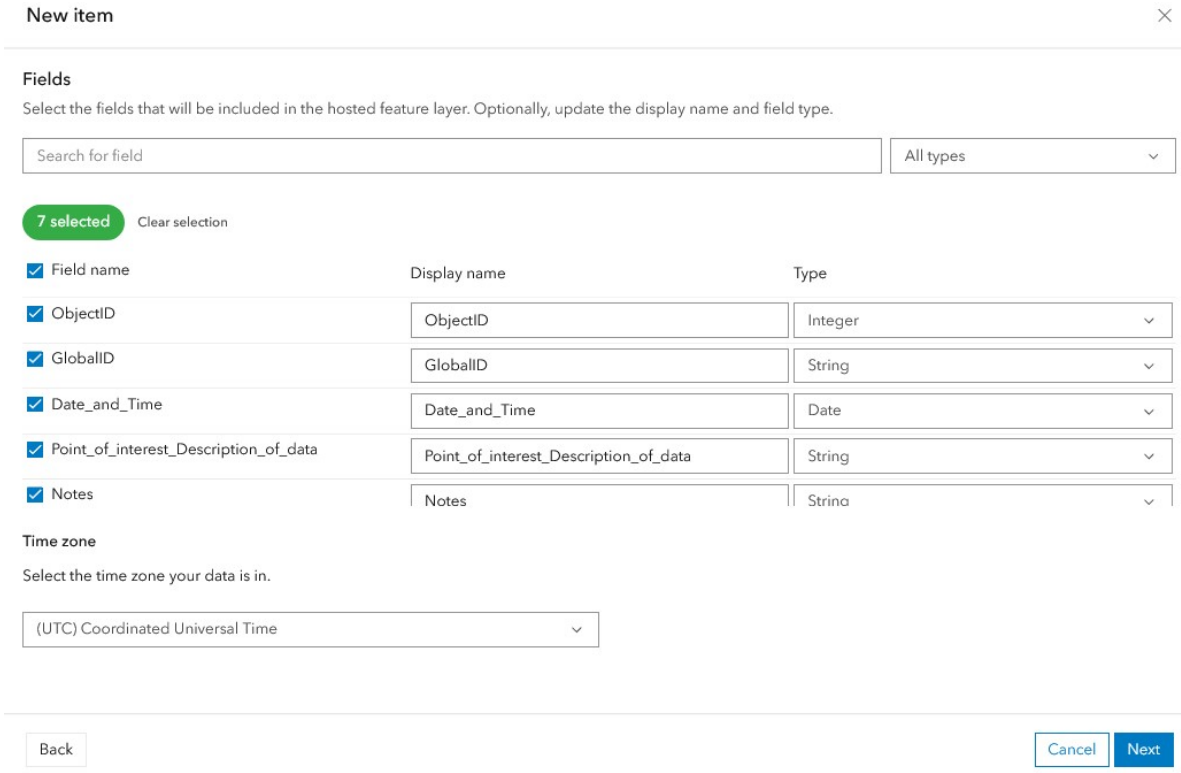
Step 8: Let us now map our new formatted table. To do so, we need to go back to our ArcGIS online account and go to MyContent. Create a new folder and choose a name to identify your map. Lastly, select New item to upload the Excel file.

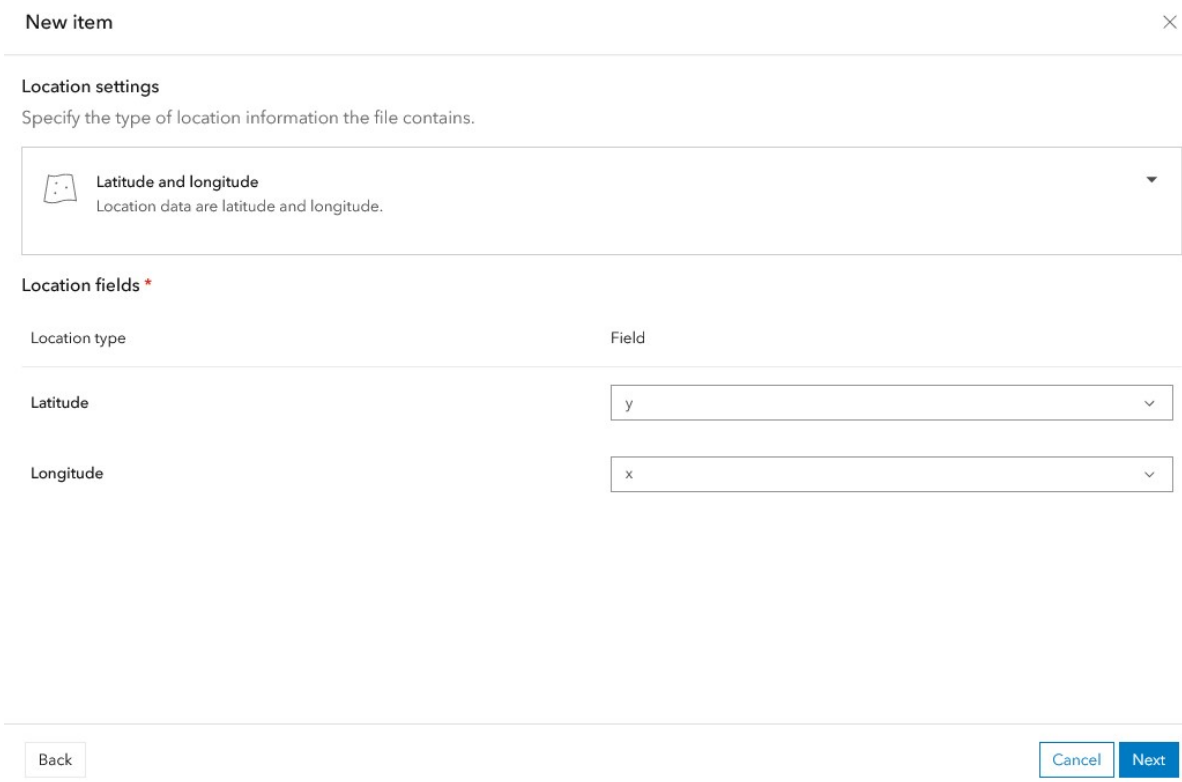


Step 9: Here you will be prompted to choose how you would like to select your file. Choose how you would like to upload your Excel file. You will then be prompted to select how you would like to add the file: choose to create a hosted feature layer or table. You will then be prompted to confirm which fields from the table you would like to include. For this exercise we will leave all items selected and choose next. We will then be asked to confirm the latitude/longitude and by default it will use our x/y axis points located in the table, select next. Lastly, we will choose the title name for our file.



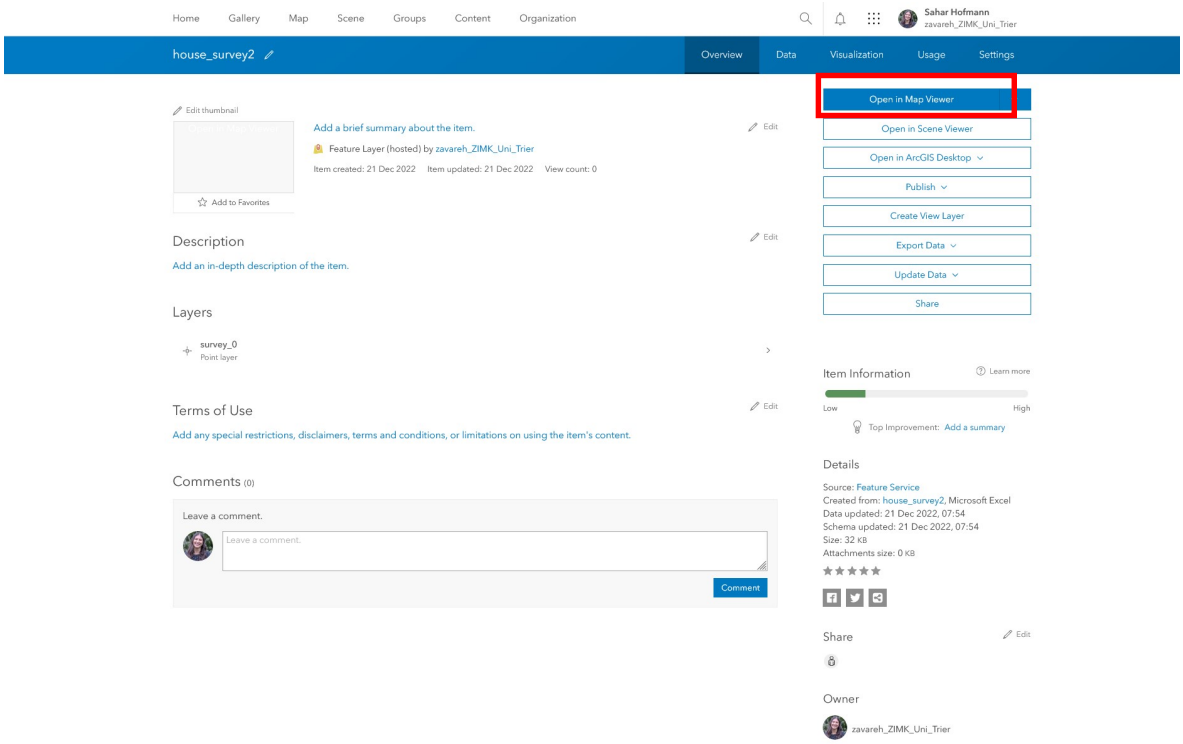



New item
Fields
Select the fields that will be included in the hosted feature layer. Optionally, update the display name and field type.
Search for field
All types
7 selected
Clear selection
Field name
Display name
Type
ObjectID
ObjectID
Integer
GlobalID
GlobalID
String
Date_and_Time
Date_and_Time
Date
Point_of_interest_Description_of_data
Point_of_interest_Description_of_data
String
Notes
Notes
String
Time zone
Select the time zone your data is in.
(UTC) Coordinated Universal Time
Back
Cancel
Next

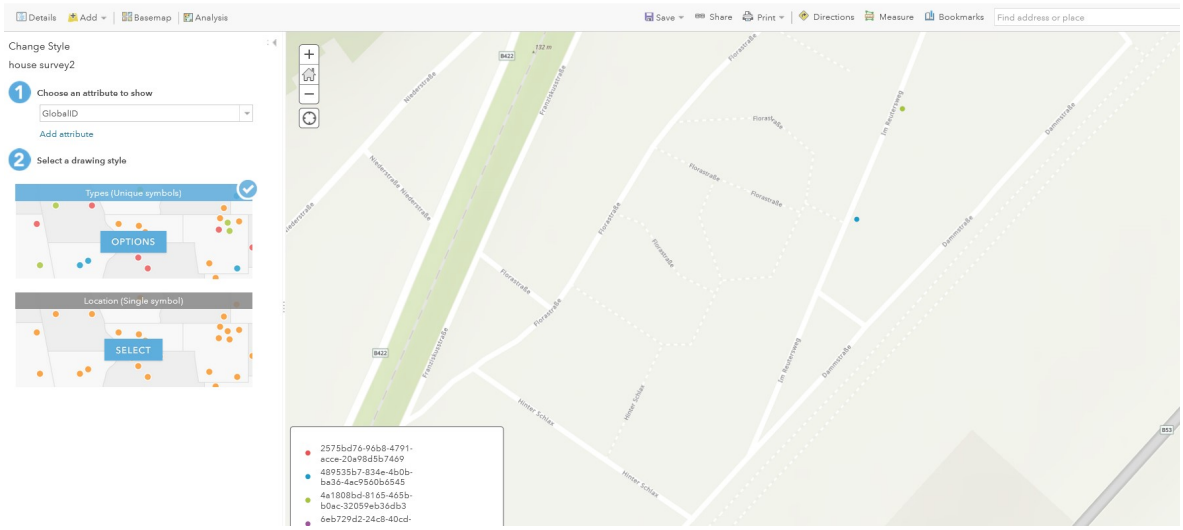

New item
Location settings
Specify the type of location information the file contains.
Latitude and longitude
Location data are latitude and longitude.
Location fields *
Location type
Field
Latitude
y
Longitude
x
Back
Cancel
Next

New item
File
house_survey.xlsx
Title
house_survey
A layer titled "house_survey" is already available. Please select a different title.
Folder
Survey-Ehrang 04.11.2022
Categories
Assign categories
Tags
Add tags
Summary
Add a summary
Characters left: 2048
Back
Cancel
Next

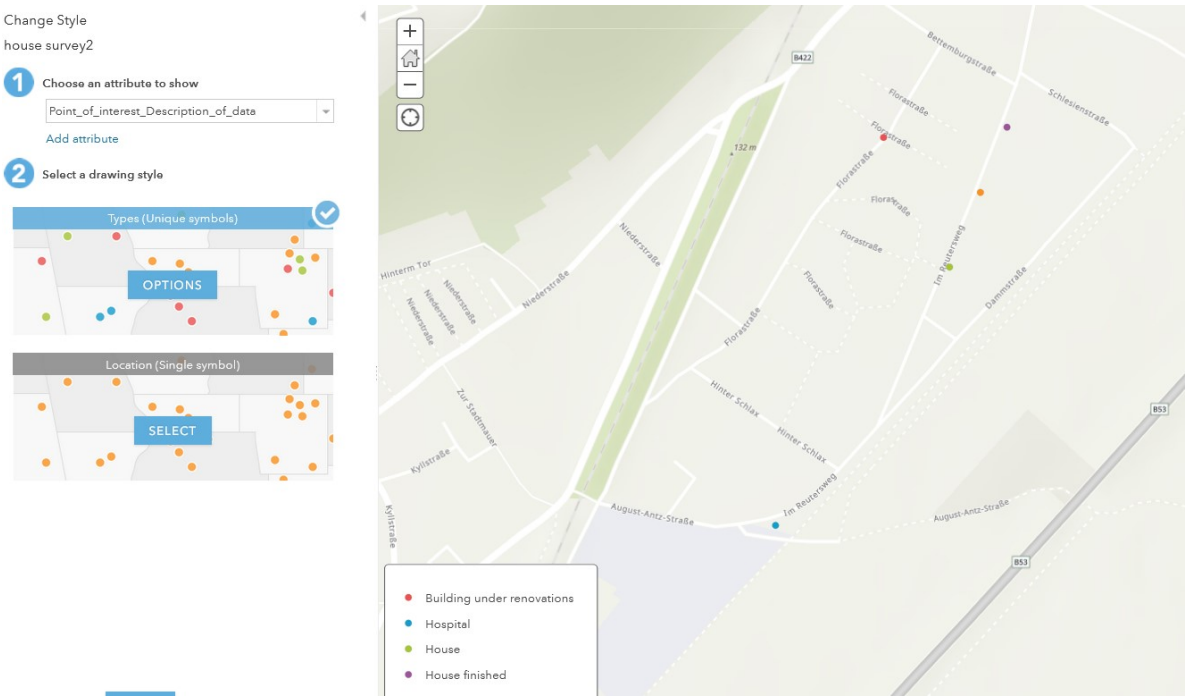
Step 10: Now we can format our map with our selected survey data. Open the table in Map Viewer

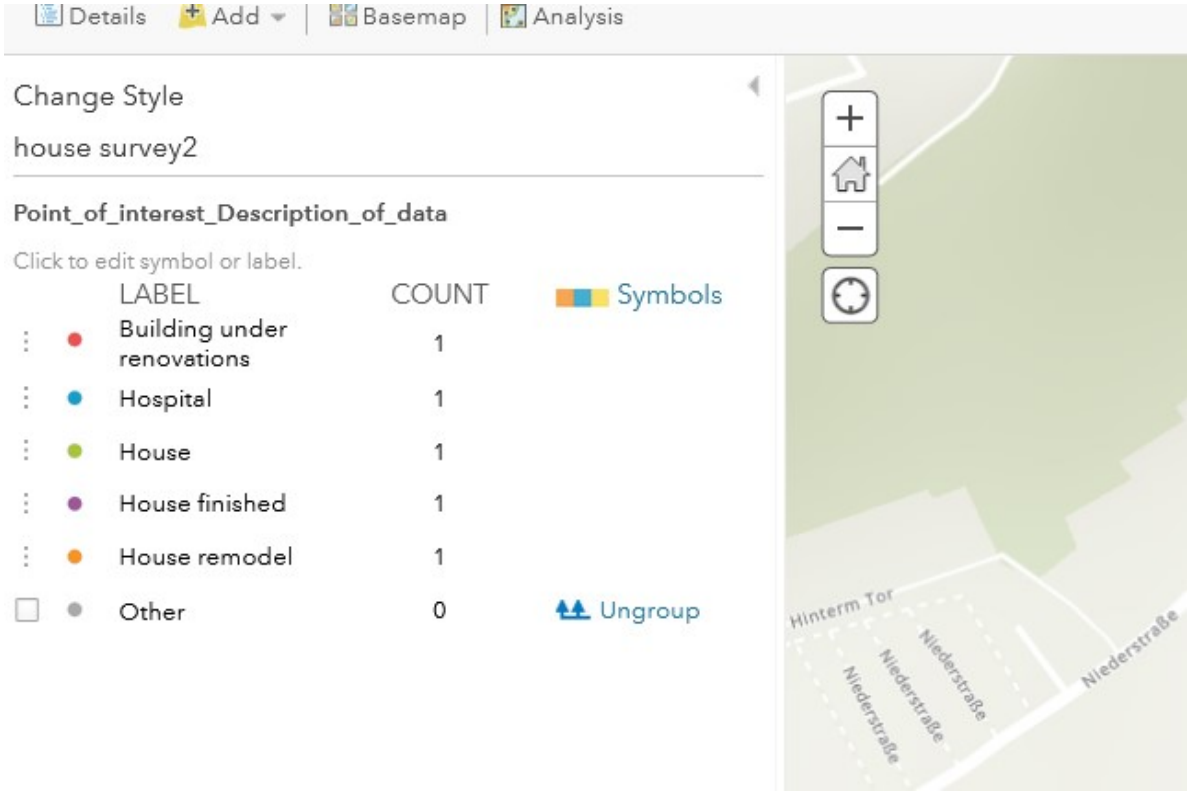


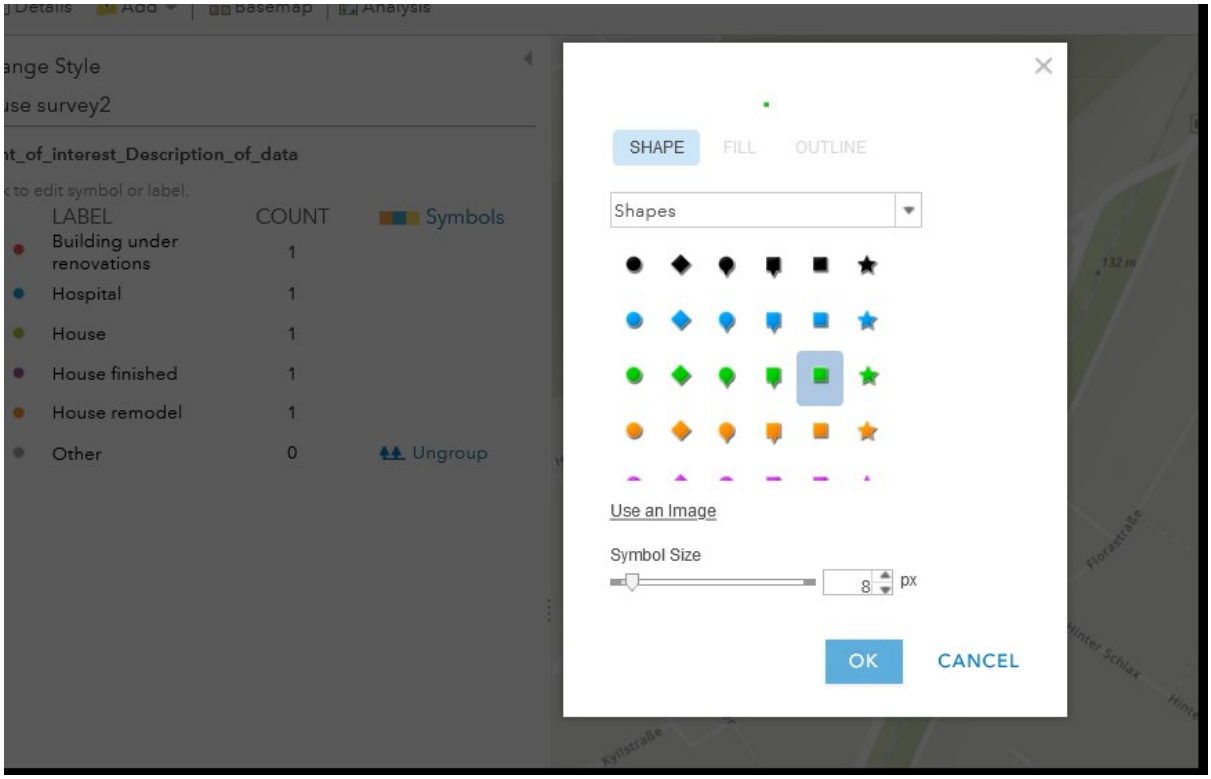
Step 11: Now we can edit the map features by selecting the attributes (Number 1) and options (Number 2)

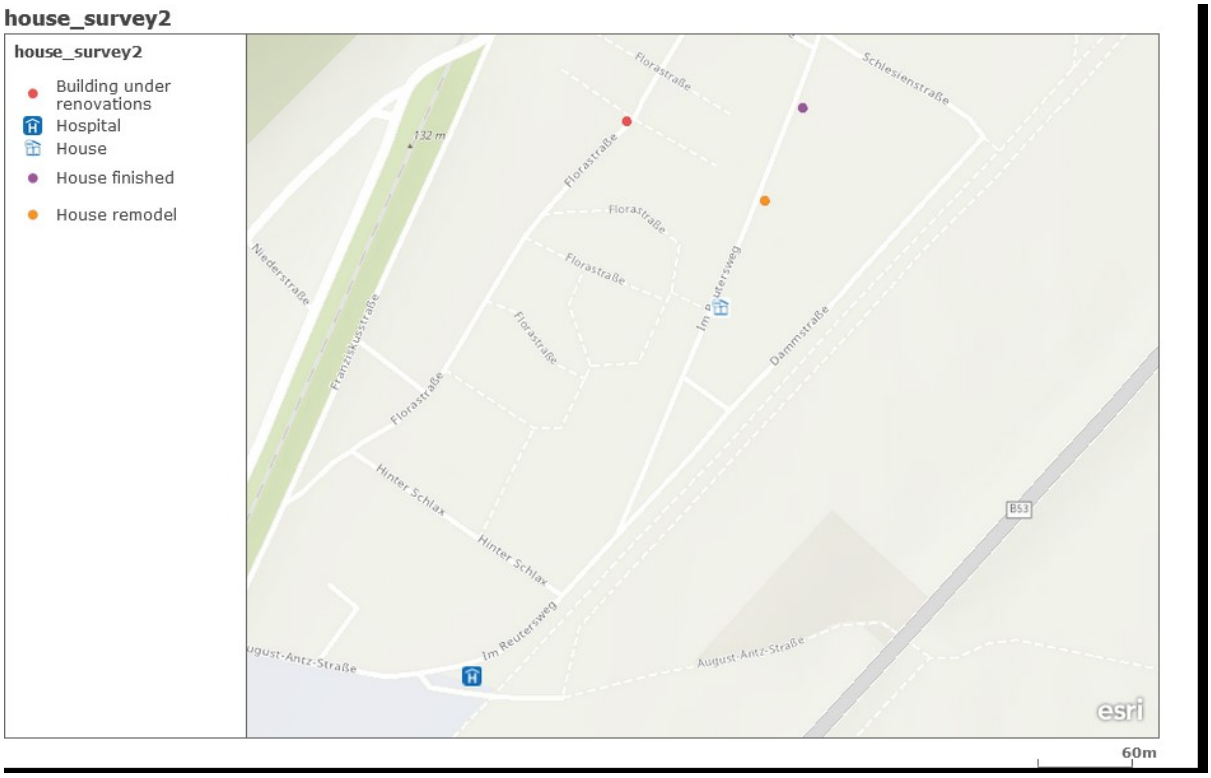


Step 12: I would like to edit the points of interest data so that I may edit the labels and shapes, which will then be used for my map legend. You can use the word to edit and rename, choose the shape (colored circles next to labels), or change the symbols. Once I have finished and ready to export the map I will need to save the map first. You can choose to print the map with a legend and then save as the format you would like. Now you are finished making a map with your Survey123 data.




Details
Add
Basemap
Analysis
Change Style
house survey2
Point_of_interest_Description_of_data
Click to edit symbol or label.
LABEL
COUNT
Symbols
Building under renovations
1
Hospital
1
House
1
House finished
1
House remodel
1
Other
0
Ungroup
Hinterm Tor
Niederstraße
Niederstraße
Niederstraße
Niederstraße


SHAPE
FILL
OUTLINE
Shapes
Use an Image
Symbol Size
8
px
OK
CANCEL


house_survey2
house_survey2
Building under renovations
Hospital
House
House finished
House remodel
Florastraße
Schlesienstraße
132 m
Niederstraße
Franziskusstraße
Im Reutersweg
Dammstraße
B53
Hinter Schlax
August-Antz-Straße
esri
60m