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Creating Domains in ArcGIS Online Hosted Feature Layers
October 5th, 2023

Overview
Learn how to create domains in your hosted feature layers in ArcGIS Online.

Goal
The goal of this training is to showcase a tool for better managing your ArcGIS Online hosted feature layers. We will use a dataset of Colorado 14ers to create a hosted feature layer in ArcGIS Online and add a list, or domain, to one of the fields.

Finished Product (if applicable)

Recording found here!

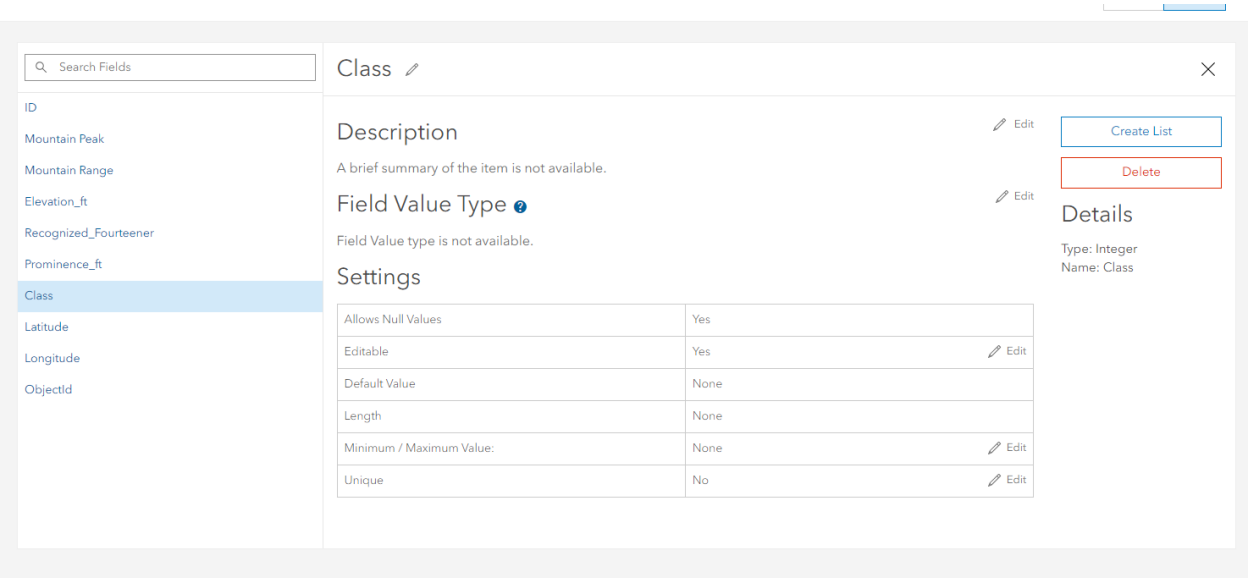
Adding a list to a field in ArcGIS Online ensures data quality and consistency on editable feature layers and can provide more context for people viewing your data. As the owner of a hosted feature layer, you can create a list of suggested attribute values for text and numeric fields, or define the possible minimum and maximum values for a numeric field.

If you have a hosted feature layer that you own and could add a domain too, feel free to practice with that. Otherwise, you can follow along using our Colorado 14ers dataset. This dataset is adapted from this dataset found on Kaggle.com.

1. Open the Colorado 14ers Google Sheet and save it as a CSV
2. Open ArcGIS Online and create a hosted feature layer using this CSV

Note how the 'Class' field will be an integer.

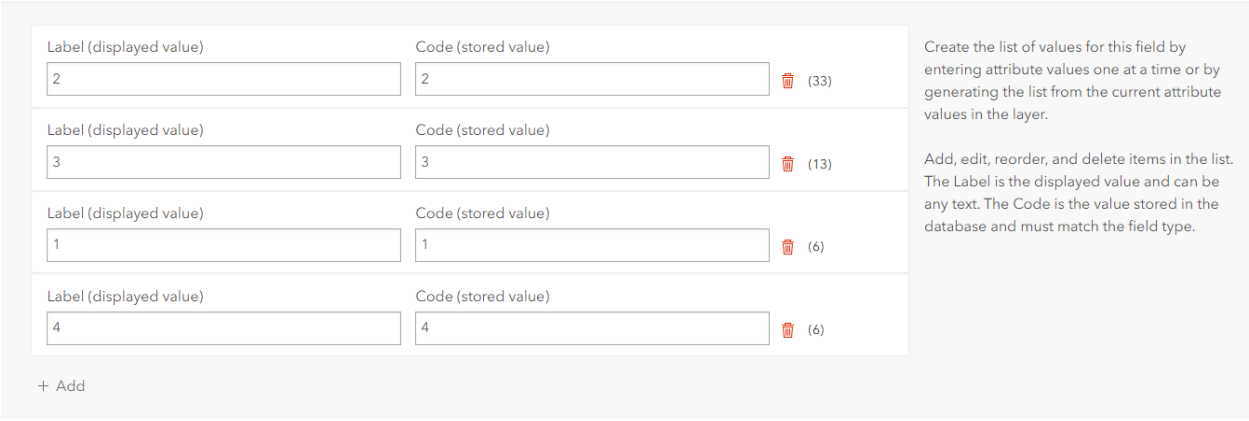
3. Open the 'Data' tab on the hosted feature layer
4. Choose 'Fields'
5. Click the 'Class' field to open this window



Because we already have data in the layer, we can use the 'Generate Values' button in the bottom right corner to populate the unique values found in the data.

6. Click 'Generate Values'

After hitting 'Generate Values', this is what we should see. It shows us how many records exist in the data with each code in the parentheses next to the trash icon.



The label is what will be displayed in the table and pop-ups when an element is selected. Let's change the labels for each class to include the word 'Class' in front for a bit more context.

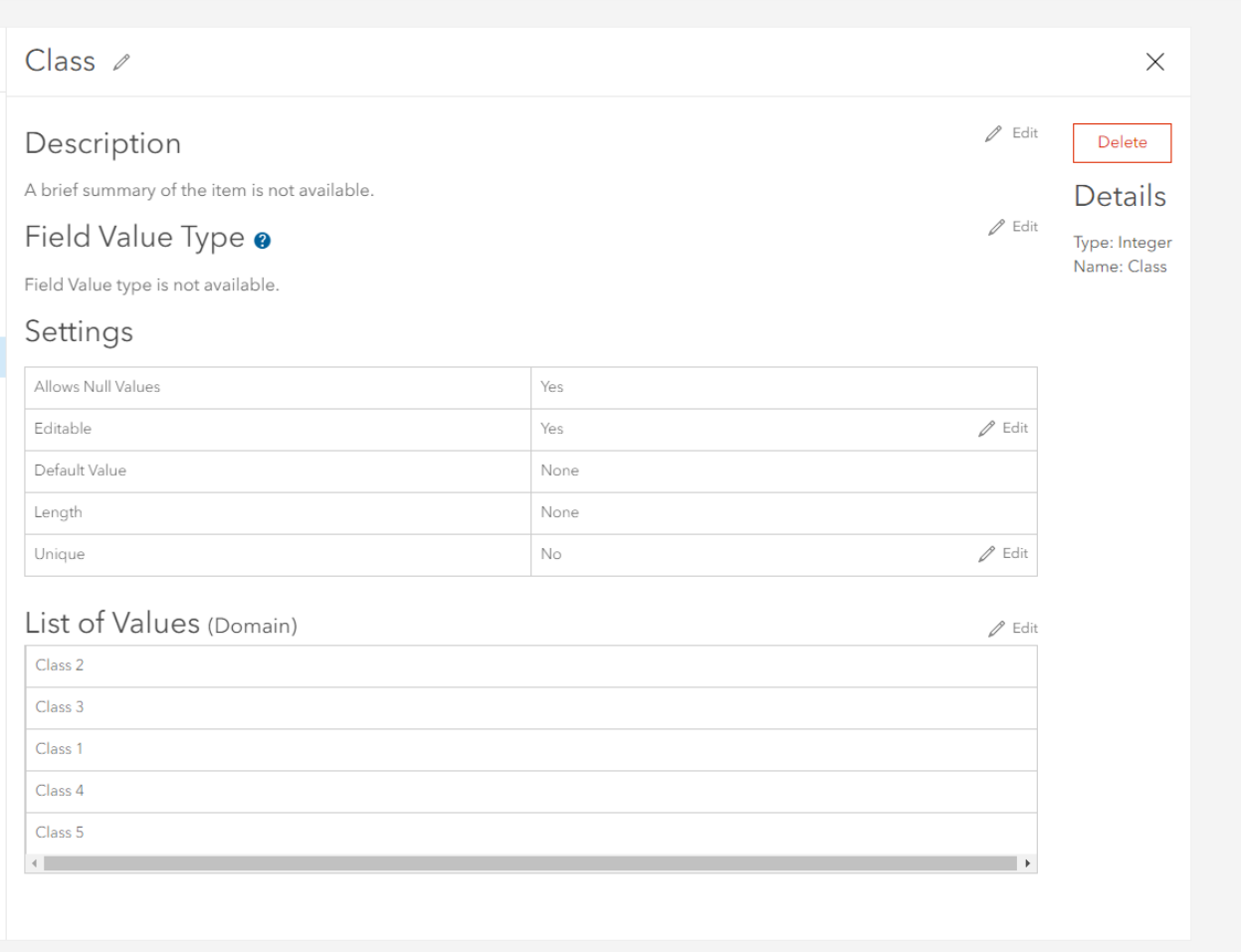
This is a bit unnecessary for this specific use case, but is useful when you have an integer attribute that you want to provide more context for by using text labels in a domain.

In addition, we could add a label/code pair. If we did intend to edit this dataset and wanted to provide additional options for the 'Class' field that do not already exist in the data, we could add that to maintain data accuracy and consistency.

7. Add a label/code value for Class 5, just for fun!

8. Click 'Save'

Now our list shows up in the field settings for the 'Class' field:



Adding a Minimum/Maximum

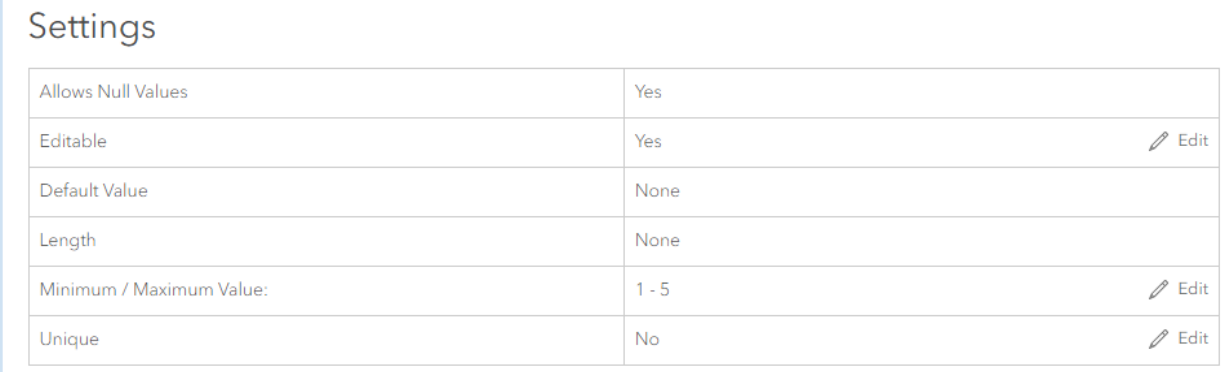
Rather than adding a list, you can define a minimum and maximum allowed value for a numeric field. This would be useful for a numeric field that is editable and needs to be within a certain range.

*Note you will need to delete the list if you want to define a minimum/maximum value

1. Click the 'Edit' button next to Minimum/Maximum Value

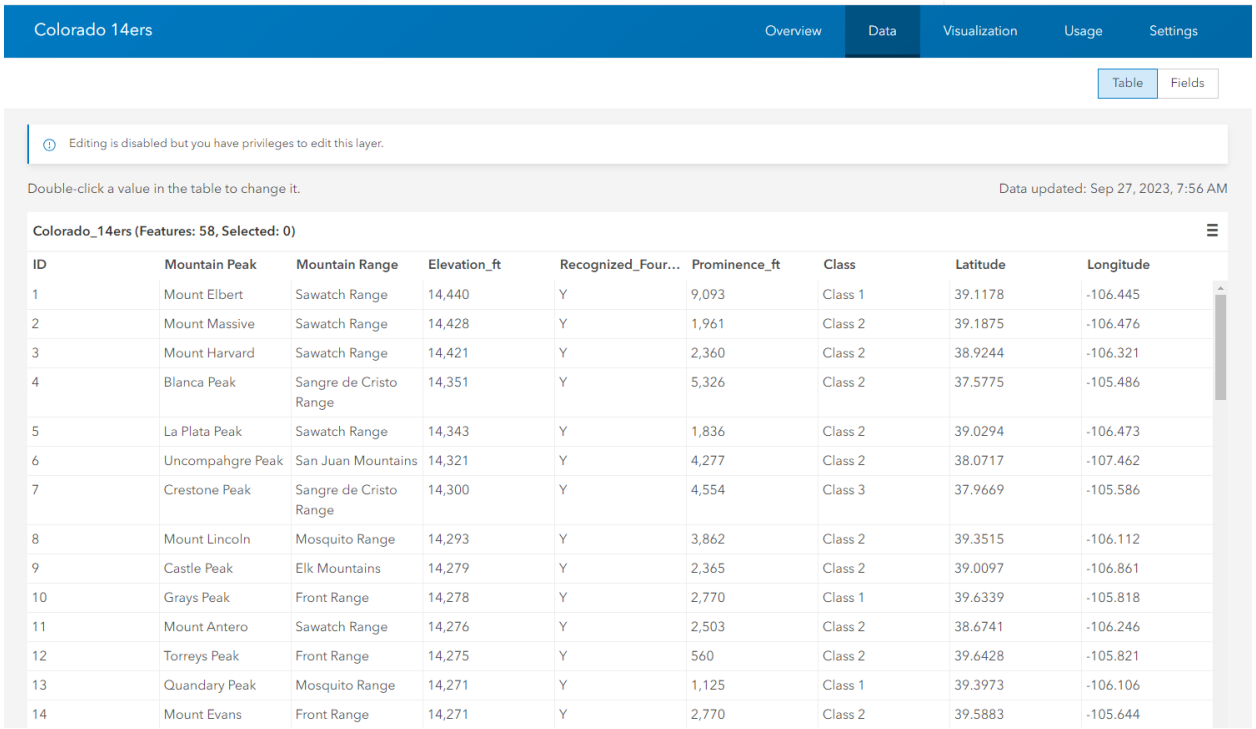
2. Enter your minimum and/or maximum value
3. Click ‘Save’

Now you should see the minimum and maximum values in the field settings



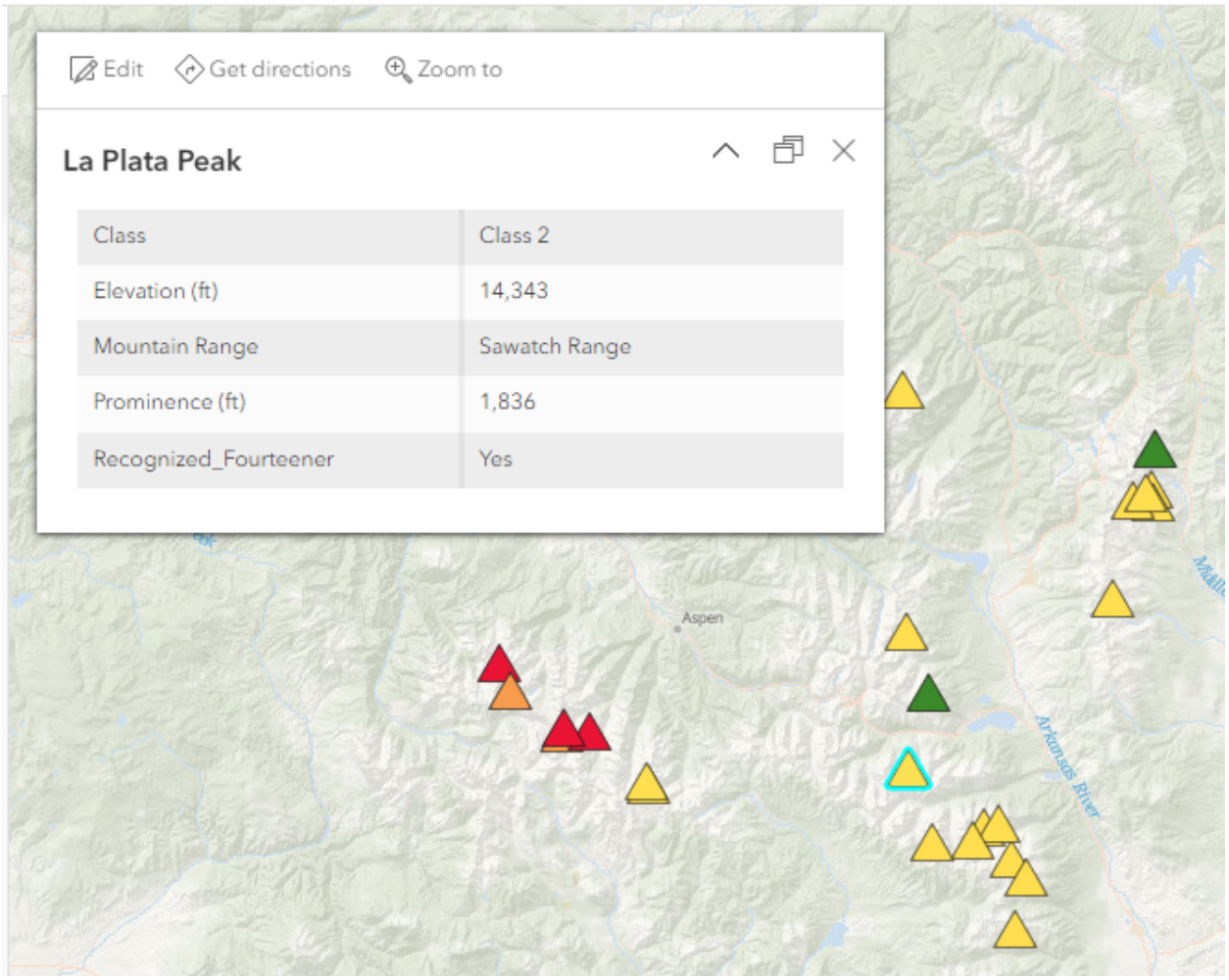
9. Return to the ‘Table’ view in the ‘Data’ tab - the values in our ‘Class’ field now have some text context

Our integer field, ‘Class’, is being displayed with the corresponding text labels that we just created using the list in the field settings.

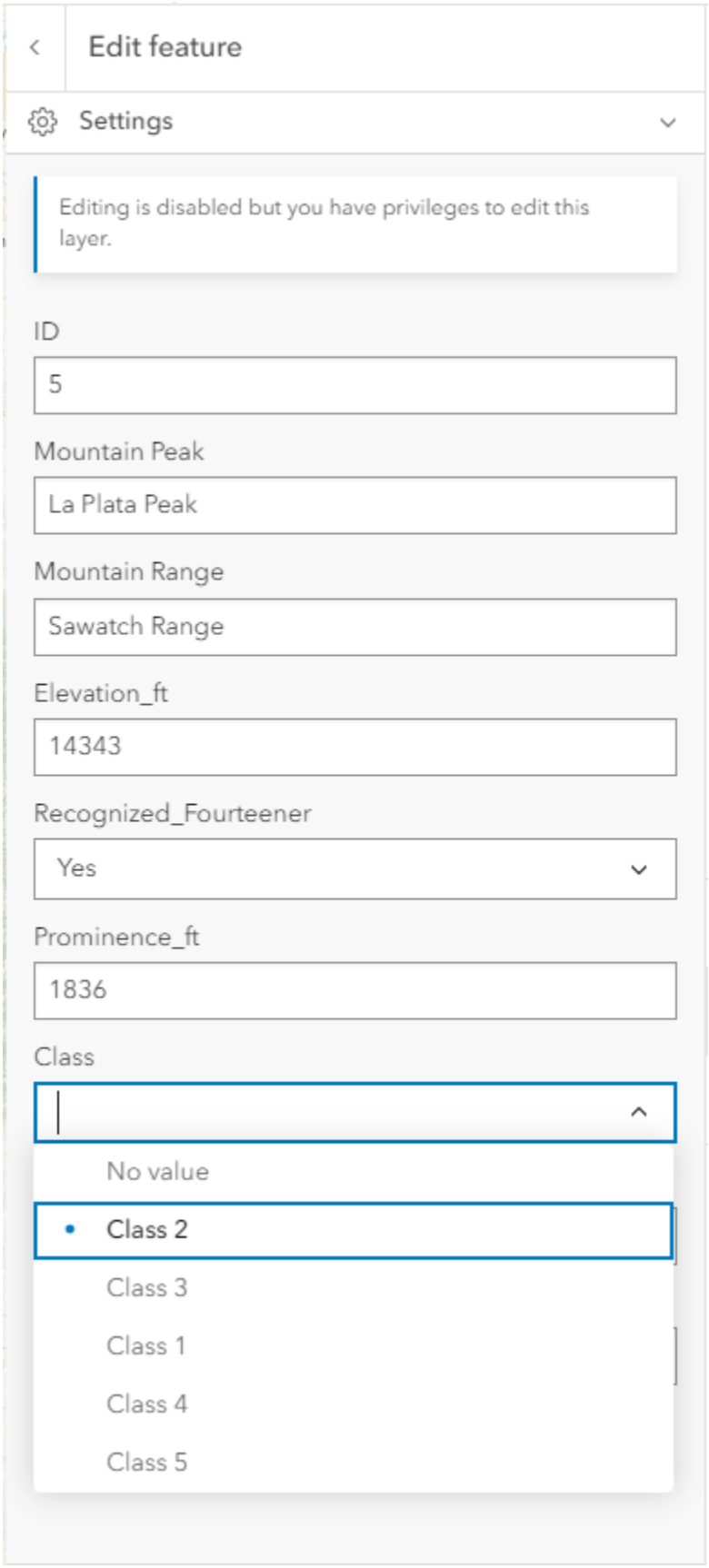


ID	Mountain Peak	Mountain Range	Elevation_ft	Recognized_Four...	Prominence_ft	Class	Latitude	Longitude
1	Mount Elbert	Sawatch Range	14,440	Y	9,093	Class 1	39.1178	-106.445
2	Mount Massive	Sawatch Range	14,428	Y	1,961	Class 2	39.1875	-106.476
3	Mount Harvard	Sawatch Range	14,421	Y	2,360	Class 2	38.9244	-106.321
4	Blanca Peak	Sangre de Cristo Range	14,351	Y	5,326	Class 2	37.5775	-105.486
5	La Plata Peak	Sawatch Range	14,343	Y	1,836	Class 2	39.0294	-106.473
6	Uncompahgre Peak	San Juan Mountains	14,321	Y	4,277	Class 2	38.0717	-107.462
7	Crestone Peak	Sangre de Cristo Range	14,300	Y	4,554	Class 3	37.9669	-105.586
8	Mount Lincoln	Mosquito Range	14,293	Y	3,862	Class 2	39.3515	-106.112
9	Castle Peak	Elk Mountains	14,279	Y	2,365	Class 2	39.0097	-106.861
10	Grays Peak	Front Range	14,278	Y	2,770	Class 1	39.6339	-105.818
11	Mount Antero	Sawatch Range	14,276	Y	2,503	Class 2	38.6741	-106.246
12	Torreys Peak	Front Range	14,275	Y	560	Class 2	39.6428	-105.821
13	Quandary Peak	Mosquito Range	14,271	Y	1,125	Class 1	39.3973	-106.106
14	Mount Evans	Front Range	14,271	Y	2,770	Class 2	39.5883	-105.644

Similarly, the pop-up in a web map is updated to display the label instead of the integer value for ‘Class’.



If I were editing this dataset, the list (domain) I created would be the only option for the 'Class' attribute. A dropdown with the list values displays for the 'Class' field when you open the editing panel for a feature.



More information about adding/editing/deleting lists can be found on this Defining Attribute Lists and Ranges page.

You can also add attributes to hosted tables.

As always, if you have any questions, reach out to us at oit_gis@state.co.us!