

Build Attribute

Make sure you're logged into the [Animals Starter File](#) in CODAP. Select the Plugins icon, then choose Transformers.

Create, Apply, and Save a Build Attribute Transformer (Step by Step)

The screenshot shows the 'Transformers' panel in CODAP. The 'Build Attribute' transformer is selected. The configuration is as follows:

- Transformer:** Build Attribute (1)
- Transformer Name:** e.g., build-age-in-ten (2)
- Dataset to Add Attribute to:** Select a Dataset (3)
- Name of New Attribute:** (4)
- Collection to Add to:** Select a collection (5)
- Formula for New Attribute Values:** Contract: Row → Any (6)
- Purpose Statement:** What does the expression do to each row? (7)
- Expression:** e.g., Age + 10 (8)

Buttons for 'Apply Transformer' and 'Save Transformer' are visible at the bottom.

- 1) Choose Build Attribute from the drop-down menu (Box 1).
- 2) At the shelter, animals are considered heavy when they weigh more than 40 pounds. Enter `build-is-heavy` as the Transformer Name (Box 2). What does this name tell you about the Transformer we are creating?

- 3) Select the dataset you'd like to transform (Box 3).
- 4) Let's name our new attribute `Heavy` (Box 4). What happened to the starred text (left) when you named the attribute?

- 5) Ensure that the collection you are adding to is "cases" (Box 5).
- 6) A domain is provided (row), but not a range. What is the desired output for `build-is-heavy`? _____
- 7) Write a purpose statement (Box 7). What do we want the expression to do?

- 8) Enter `Pounds > 40` as the expression (Box 8).
- 9) Apply the Transformer. To define the Transformer for future use, select Save.

More Building (On Your Own)

Create a Transformer called `build-updated-age`, which will give the animals' ages one year from today.

10) How many animals are 9 years-old one year from today? _____

Create a Transformer that builds a column with the number of letters in each animal's name.

11) What did you name your Transformer and the new attribute? _____

12) How many animals have exactly 8 letters in their names? (Feeling adventurous? Try using the Count Transformer here!) _____

Create a Transformer to build a column that returns `true` if the number of letters in an animal's name (the column you created in Question 11!) is less than or equal to five.

Note: Does your new attribute name have a space or a hyphen? If so, CODAP will produce an error when you apply your Transformer. Either change the name of the attribute or wrap your entire attribute name inside tick marks (` `) when you type in your expression. (The tick mark key is in the upper left-hand corner of your keyboard.)

13) What expression will you use? _____

14) Which dataset will you need to apply this Transformer to? Why? _____