# Table Transformations with Method Chaining

Referenced from lesson [Method Chaining](https://www.bootstrapworld.org/materials/spring2021/en-us/courses/data-science/lessons/method-chaining/index.shtml) (Spring, 2021)

You have the following functions defined below (read them *carefully!*):

fun is-fixed(r): r["fixed"] end  
fun is-young(r): r["age"] < 4 end  
fun nametag(r): text(r["name"], 20, "red") end  
fun is-female(r): r["sex"] == "female" end  
fun kilograms(r): r["pounds"] / 2.2 end  
fun is-heavy(r): r["kilos"] > 25 end  
fun is-cat(r): r["species"] == "cat" end  
fun is-dog(r): r["species"] == "dog" end

Assume that animals-table is defined, and represents all the animals at the shelter. Solve the word problems below using these functions with filter, build-column, and order-by.

| **1** | Create a table of all female cats. |  |
| --- | --- | --- |
| **2** | Create a table of all young, fixed animals. |  |
| **3** | Create a table of all female dogs, converting their weight to kilograms. |  |
| **4** | Create a table of all heavy dogs. |  |
| **5** | Create a table of all young, fixed dogs, sorted from lightest to heaviest. |  |
| **6** | Create a table of all fixed, young animals, with an extra column showing images of their nametags. |  |
| **7** | Create a table of fixed, female cats, with a column showing images of their nametages, sorted heaviest-to-lightest by their weight in kilograms. |  |

*These materials were developed partly through support of the National Science Foundation, (awards 1042210, 1535276, 1648684, and 1738598).  Bootstrap:Data Science by the* [*Bootstrap Community*](https://bootstrapworld.org/community/index.shtml) *is licensed under a* [*Creative Commons 4.0 Unported License*](https://creativecommons.org/licenses/by-nc-nd/4.0/)*. This license does not grant permission to run training or professional development. Offering training or professional development with materials substantially derived from Bootstrap must be approved in writing by a Bootstrap Director. Permissions beyond the scope of this license, such as to run training, may be available by contacting* [*contact@BootstrapWorld.org*](https://www.bootstrapworld.org/materials/spring2021/en-us/courses/data-science/lessons/method-chaining/pages/mailto:contact@BootstrapWorld.org)*.*

Last updated 2021-10-12 13:35:56 -0400