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Space Cows Introduction

A colony of Aucks (super-intelligent alien bioengineers) has landed on Earth and has created new species of farm animals! The Aucks are performing their experiments on Earth, and plan on transporting the mutant animals back to their home planet of Aurock. In this problem set, you will implement algorithms to figure out how the aliens should shuttle their experimental animals back across space.

Getting started!

Download pset1.zip from the website.

Please do not rename the files we provide you with, change any of the provided helper functions, change function/method names, or delete provided docstrings. You will need to keep *ps1_partition.py* and *ps1_cow_data.txt* in the same folder as *ps1.py*.

Transporting Cows Across Space!

The aliens have succeeded in breeding cows that jump over the moon! Now they want to take home their mutant cows. The aliens want to take all chosen cows back, but their spaceship has a weight limit and they want to minimize the number of trips they have to take across the universe. Somehow, the aliens have developed breeding technology to make cows with only integer weights.

The data for the cows to be transported is stored in *ps1_cow_data.txt*. All of your code for Part A should go into *ps1.py*.

First we need to load the cow data from the data file *ps1_cow_data.txt*, this has already been done for you and should let you begin working on the rest of this problem. If you are having issues getting the *ps1_cow_data.txt* to load, be sure that you have it in the same folder as the *ps1.py* that you are running.

You can expect the data to be formatted in pairs of x,y on each line, where x is the name of the cow and y is a number indicating how much the cow weighs in tons, and that all of the cows have unique names. Here are the first few lines of *ps1_cow_data.txt*:

Maggie,3
Herman,7
Betsy,9
...

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