Applied Data Analysis

Challenge Lab

Overview

You work as a data analyst for a company that manufactures lawn mowers. Using a set of raw data taken from customer surveys, your manager wants you to answer a series of questions and present your findings to the company's board of directors.

In this challenge lab, you won't be provided with the same step-by-step instructions as the previous labs (that's where the "challenge" part comes in). Good luck!

Data Set

ChallengeLab.csv

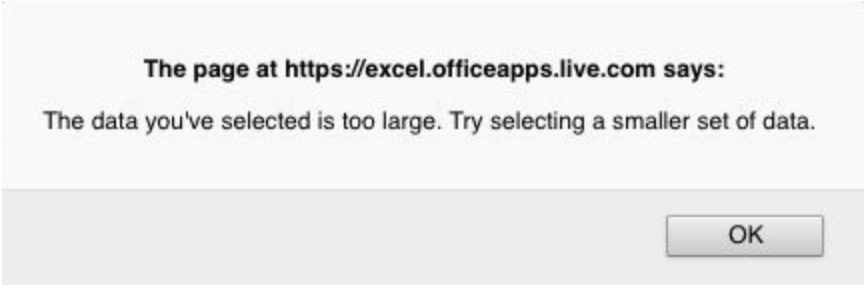
What You'll Need

To complete the lab, you will need the online version of Microsoft Excel.

Exercise 1: Lawn Mower Challenge

Open the data set in a new Excel Online spreadsheet. The data set gives information about 3851 owners of three different lawn-mowing products manufactured by your company. All the people in the data set own at least one of the products.

Note: You might see the following message pop up if you try to copy and paste this large data set into Excel all at the same time:



If that happens, then carefully copy and paste the data about 1000–2000 rows at a time until you have **all 3852 rows** in a new Excel Online worksheet (that includes 3851 different customers, plus the top row with the column titles).

In this data set, the columns/variables represent the following:

id = a number representing the individual customer for ID purposes (i.e. Customer 1, Customer 2, etc.)
age = the customer's age, in years
receive.offer = the customer's answer to this question: "Are you willing to hear about more products from our company?" (either Yes or No)
repeat.customer = the customer's answer to this question: "Have you purchased other products from our company in the past?" (either Yes or No)
prod = the name of the product most recently purchased by the customer (either Yard Smasher, Grass Chopper, or Handy Helper)

With the data set open, answer the following questions. Enter your answers in the "Lab Check" quiz section following this lab. These questions are graded, so take your time and answer them carefully. Feel free to perform calculations with the data in Excel however you wish to come up with your answers.

1. How many people own each product?
2. What are the average ages of the owners of each product?
3. Which product is owned by the oldest people, on average?
4. Which product is owned by the youngest people, on average?
5. What percentage of people are willing to receive an offer?
6. Which product has the highest percentage of owners willing to receive an offer?
7. What percentage of people are repeat customers?
8. Which product has the highest percentage of repeat customers?

Head to the "Lab Check" section of this lesson to enter your answers.