## Multiple Linear Regression Exploration Questions

For this activity, you will be comparing the price of houses(dependent) to the number of bedrooms, number of bathrooms, home size, and house age(independent). Here is the information:

| Price (\$ <br> (millions)) | Bedrooms | House Size (sq <br> ft (thousands)) | House Age <br> (Years) |  |
| ---: | ---: | ---: | :--- | :--- |
| 0.5 | 4 | 3.5 | 2.725 | 15 |
| 1 | 5 | 3.5 | 4.65 | 8 |
| 2 | 5 | 5 | 4.509 | 5 |
| 2.625 | 4 | 5.5 | 10.319 | 3 |
| 4.4 | 6 | 7.5 | 10.45 | 1 |

1. How would you enter in the data for the first house on the list?
2. What is the correlation coefficient for each of the four dimensions?
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3. Which dimension is the best indicator of the price of a house?
4. Is there a different dimension that you would expect to be a better indicator of your dependent variable? What might account for this not being the best indicator of your dependent variable?
5. Do any of your dimensions have a negative correlation? Can you think of any reasons why this might be the case?
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