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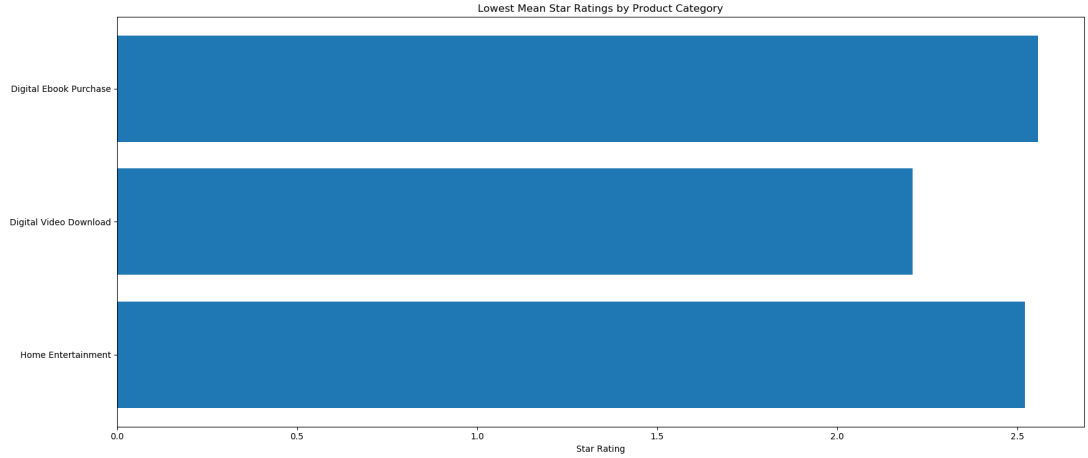
The dataset I chose was the Amazon Review Dataset, US multilingual. I chose the dataset due to the multi-star ratings, large amount of data and text to be analyzed. The data is quite interesting, especially as the machine learning approaches I took were very automated due to the high number of entries. The first visualization was a correlation of helpful reviews, but the lowest rated average by department on Amazon. From here, I continued with the dataset and created a bag of words approach for data analysis.

The machine learning tasks verify the validity of reviews, create a bag of words representation, then model around that to create a vector to compare phrases to. From the machine learning methods used, I discovered that because the dataset was so large, the category of the reviews matter. I was unable to solve this within the time constrains of the project.

The different algorithms used resulted in different outcomes, including a lower AUC for the 2nd used.

The first visualization (as provided below) show the correlation of product category and lowest average star ratings. The 2nd visualization is a representation of the highest amount of reviews by top 5 product categories.

The dataset will automatically download itself into the directory where python is running upon running.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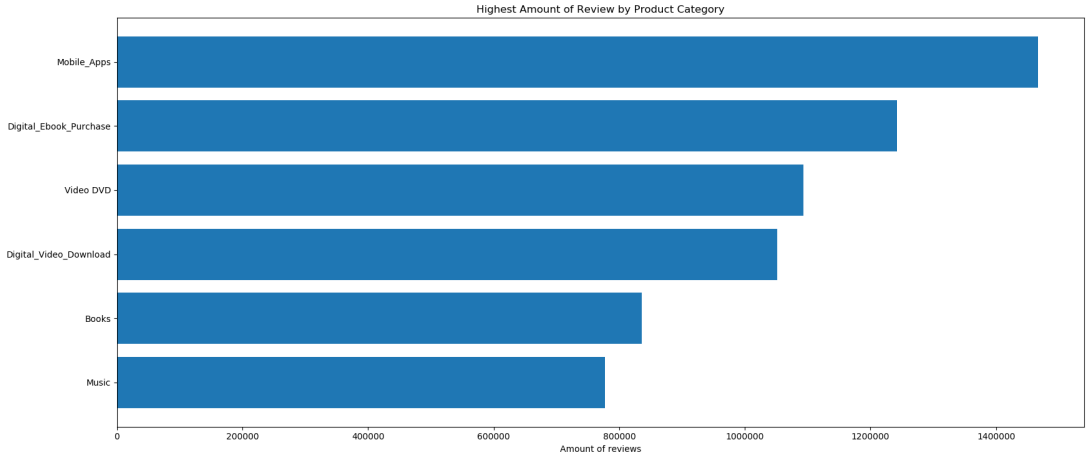
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