

Team 16

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## **ABSTRACT**

Packaged foods are a huge part of American culture as we have a whole market dedicated to branded products. Although the packaged meals we eat may be convenient and sometimes tasty, there are ingredients in the food that may be surprising to the average consumer. As such, an understanding into what ingredients these foods are composed of can bring insight into the effects branded foods have on human health, which can further be used to develop better eating and living patterns. The first question we wanted to answer was what the most common ingredients were in certain categories of packaged food as well as the top ingredients overall. This would provide us with critical nutritional information that would help us to discern what foods were more unhealthy than others. We also wanted to answer the question of what combinations of ingredients were found in particular items. This would provide us information on the possible flavors that result from certain combinations of ingredients. Furthermore, we wanted to draw conclusions regarding what the healthiest meal options were based on our data analysis. Finally, we wanted to practically apply our findings to supply chain aspects concerning different ingredient categories. To accomplish these goals, we first cleaned our data using OpenRefine and Python. Then we used Python to perform data analysis and visualization. We hope that our data exploration successfully tells a story that can guide agencies, manufacturers, and the general population on various aspects associated with packaged foods.