

Team 5:

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Overall Theme: Exploring the Global Market of Chocolate

Rationale: We want to create a website for entrepreneurs and potential investors interested in the chocolate industry. In our website we want to provide basic competitive information about key aspects of the industry:

1. The best countries to source raw materials
2. Get to know the most important global manufacturers and what type of beans they use in their manufacturing process
3. Establish if there's a correlation between the origin of the bean and the quality of the final product
4. Which markets are more specialized in manufacturing chocolate
5. Explore the relationship between the "purity" of the chocolate and the quality of the final product

Ideas of data visualizations for the chocolate rating data (highlighted by topic):

- Correlation between the bean vs. the overall rating
- Where are the best cocoa beans grown?
- Which countries produce the highest-rated bars?
- What's the relationship between cocoa solids percentage and rating?
- What is the best manufacturing country based on rating?
- Average rating by country per year? (we need to check data availability)
- Best Manufacturers based on average rating
- We could compare a few companies over the years and their ratings
- Most popular cocoa beans over time
- Particular year-top 5 company locations

Overall Diagram of the Page:

Page	Content	Technical Notes
Index	Show a summary of the content included in the webpage.  We can show a preview of some of the graphics that will be on each section with a description of the content.	Html

	The images will be a link to visit each section.	
Global Market	<ul style="list-style-type: none"> <li>• Where are the best cocoa beans grown?</li> <li>• Which countries produce the highest-rated bars?</li> <li>• What is the best manufacturing country based on rating?</li> <li>• Average rating by country per year? (we need to check data availability)</li> </ul>	Plotly leaflet
Global Manufacturers	<ul style="list-style-type: none"> <li>• Best Manufacturers based on average rating</li> <li>• We could compare a few companies over the years and their ratings</li> <li>Particular year-top 5 company locations</li> </ul>	D3/plotly
Sourcing Cocoa	<ul style="list-style-type: none"> <li>• Correlation between the bean vs. the overall rating</li> <li>• What's the relationship between cocoa solids percentage and rating?</li> <li>• Most popular cocoa beans over time</li> </ul>	Flask and sql alchemy

Dataset Chosen: <https://www.kaggle.com/rtatman/chocolate-bar-ratings>

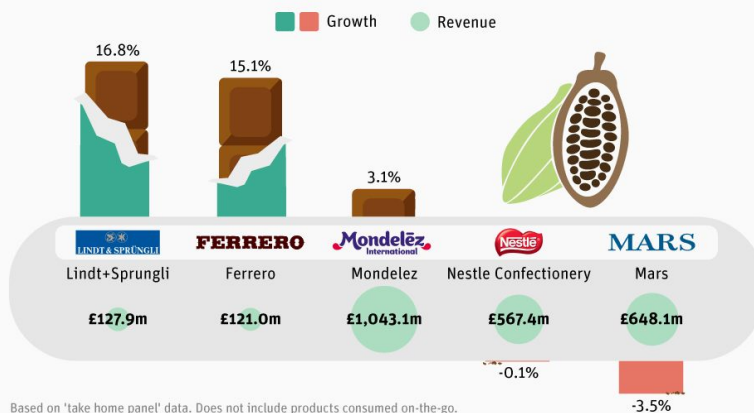
Repository: <https://github.com/kborig89/Project2-Team5>

## Inspiring Visualization:



### Top five confectionery manufacturers

UK sales 52w/e 24 April 2016



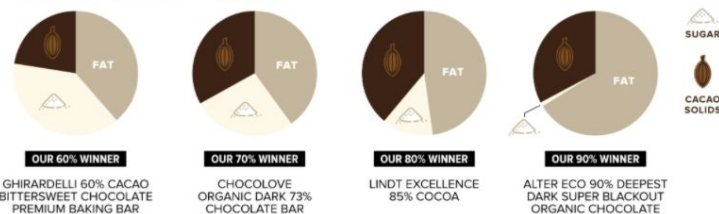
Based on 'take home panel' data. Does not include products consumed on-the-go.

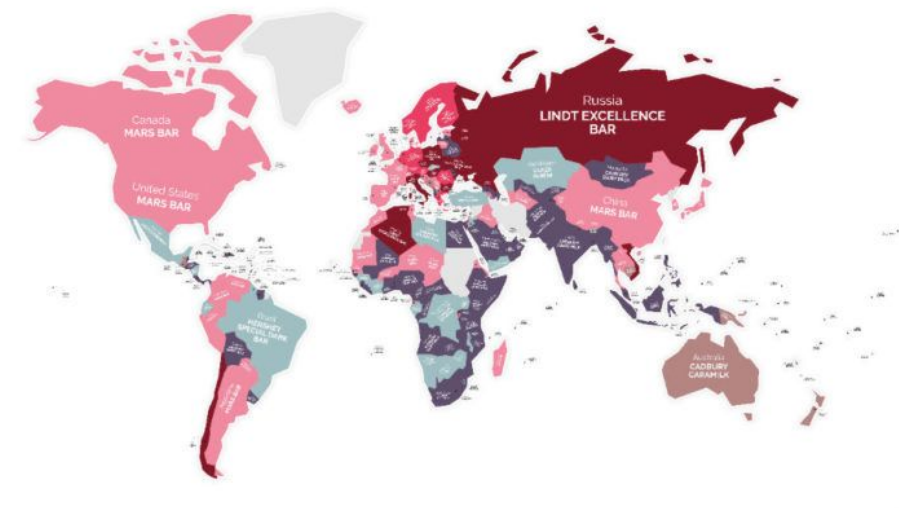
Excluding private label  
@StatistaCharts Source: Kantar Worldpanel

KANTAR WORLD PANEL Grocer statista

### What Exactly Is Dark Chocolate?

"Dark chocolate" is a term with no legal definition. The U.S. Food and Drug Administration (FDA) defines "bittersweet or semisweet chocolates" (terms often used to refer to dark chocolate) as containing at least 35 percent cacao, and milk chocolate as containing 10 percent cacao. But, you ask, what does cacao (pronounced kuh-KOW) percentage even mean? Plainly put, it is the percent of ingredients in a chocolate bar that comes from cacao beans. In a 90-percent-cacao bar, 90 percent of that bar is derived from cacao beans (which includes both cocoa solids and cocoa butter), and 10 percent is other ingredients (such as sugar, vanilla, salt, and so on). However, bars with the same cacao percent won't necessarily taste the same, as they could have different ratios of cocoa solids to cocoa butter.





## Flavors of Cacao Rating System:

- 5= Elite (Transcending beyond the ordinary limits)
- 4= Premium (Superior flavor development, character and style)
- 3= Satisfactory(3.0) to praiseworthy(3.75) (well made with special qualities)
- 2= Disappointing (Passable but contains at least one significant flaw)
- 1= Unpleasant (mostly unpalatable)

## Dashboard

1. Heat map of country of origin
2. HeatMap for the ratings
3. Moving scatter (like plotly homework)
4. Pie chart visualization & Bar graphs

sqlAlchemy & flask & sqlite