

US Food & Beverage Imports (1999 – 2022)

DA485 Capstone Project

Data Management and Analysis - BI Concentration

Date: June 14, 2023

Prepared By Team Go Green

Heather Selymes, Jodi Thomas, Oanh Bunas, Xia Zhang, Brett Grell

Team Roles



Problem Statement

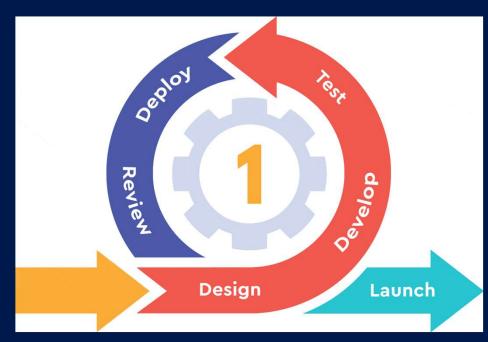
Is there business potential to be found in the food and beverages imported by the United States?

- Background: Go Green Imports company specializes in ethically-sourced food products
- Relevance: Team Go Green is hired to identify business opportunities
- Objectives:
 - Acquire historical data of US food imports
 - Build a data warehouse
 - Perform data analysis
 - Create dashboards to display results

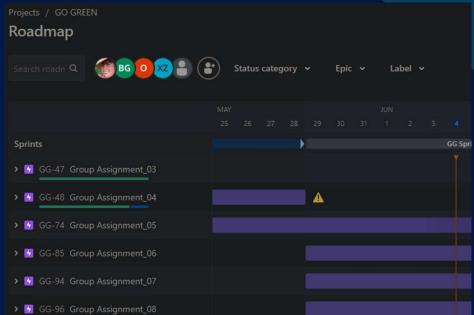


Project Management

Agile



Jira



Heather Selymes - PM & Scrum Master

Requirements Gathering

Stakeholder Conversation Results

- We need historical information on US food imports.
- We need information on imports by type, amount, and monetary value.
- We need a system that can store this information.
- We need a report that delivers this information in a visually striking manner.



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User Stories

- As a CEO, I want to examine import data, so I can find better business opportunities
- As a CEO, I want to read reports, so I can compare total imports by country
- As a CEO, I want to read reports, so I can compare total imports by price
- As a CEO, I want to read reports, so I can compare the amount (dollars) imported by product by year
- As a CEO, I want to read reports, so I can compare the amount (weight) imported by country by year
- As a CEO, I want to read reports, so I can compare median price by country over time



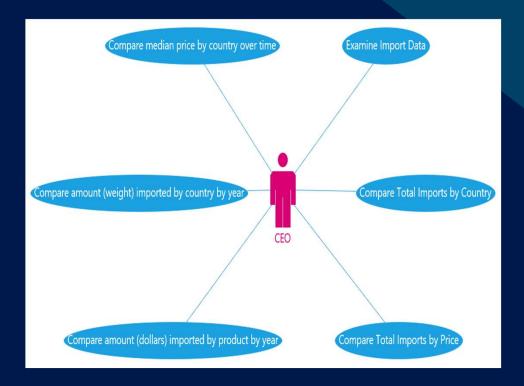
What can we produce?

Take us to the next level

Data Warehouse Design

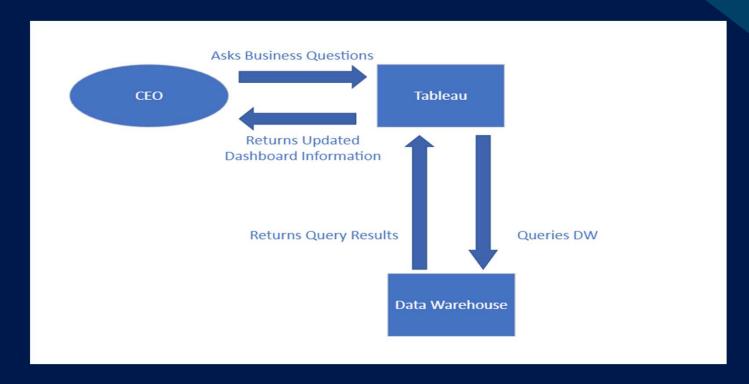
- Transform the data set to information to discover actionable insights for potential business opportunities.
- Scalable Data Warehouse design to accommodate need for future functionality.
- Increase system speed, query performance, and agility while maintaining data integrity.
- Save costs and provide quality Business Intelligence to our stakeholders.

Use Cases



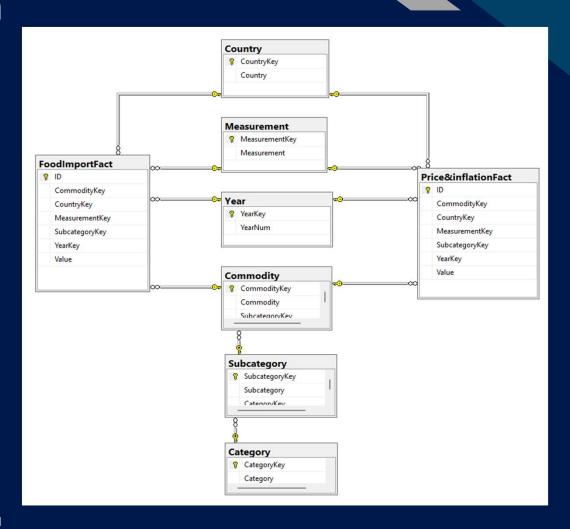
How does this DW Benefit Business?

Data Flow Diagram



DW Design

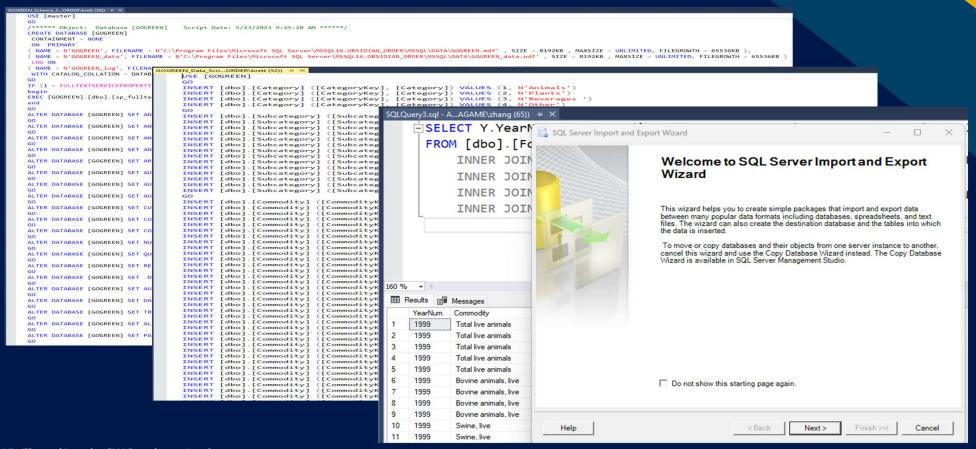
ERD



Xia Zhang (Anna) – SW Developer Lead

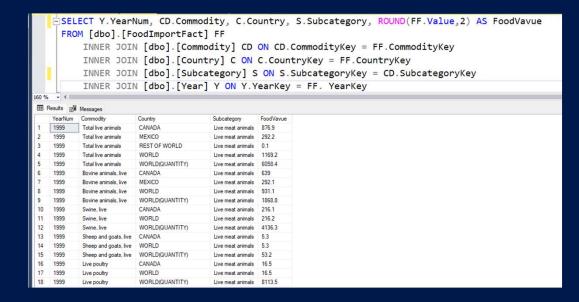
Examples of Import and Export Data

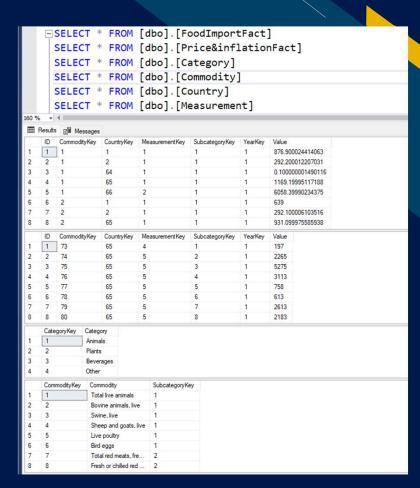
Clean data sets, organize, process, and integrate into SSMS



Xia Zhang (Anna) – SW Developer Lead

Examples of DW Testing





Xia Zhang (Anna) – SW Developer Lead

Where can I learn more? RAID Log: Risk Analysis

- Risks
- Actions / Assumptions
- Issues
- Decisions

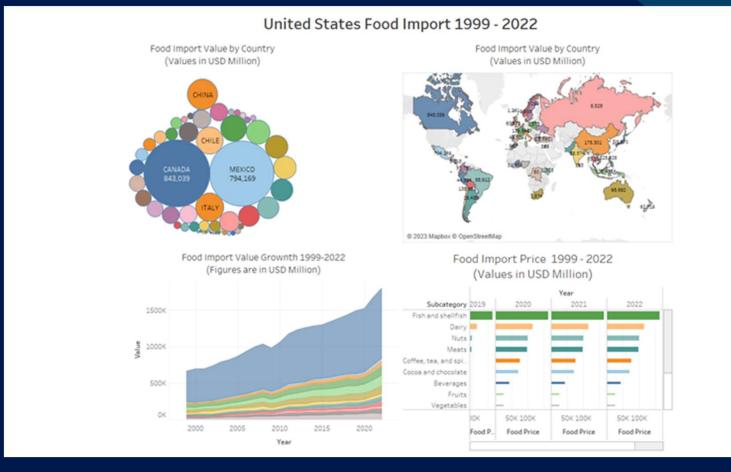
Decision Log

Who made the decision, When that decision was made or implemented, Record all decisions made during the course of the project as a reference.

Date	Decision
04/17/23	This project idea was presented by Brett at the last class meeting on 4
04/17/23	Heather would like to table the WBS template for now and discuss at
04/17/23	Evenings are best suited for all, so moving forward, team meetings are
04/17/23	Jodi will work with our PO (Brett) to pick out data sets. Brett will deci
	Oanh will own and submit assignments
04/19/23	Brett own user stories
04/19/23	Heather has more project management experience than the rest of us
	Anna agrees to be part of the Development Team
04/19/23	Brett is PO
04/19/23	Jodi has agreed to take the minutes of our meeting (Scribe), which wi
04/19/23	Oanh has agreed to be our subject matter expert and will also be part
04/19/23	Brett will begin the work on "use cases" and Anna will work on ERD to
04/19/23	We all will need to self-report on how the assignment went. This will I
04/24/23	There will be a chat set up in Team for the Dev team communication t
4	
> =	Risks Actions Assumptions Issues Decisions +

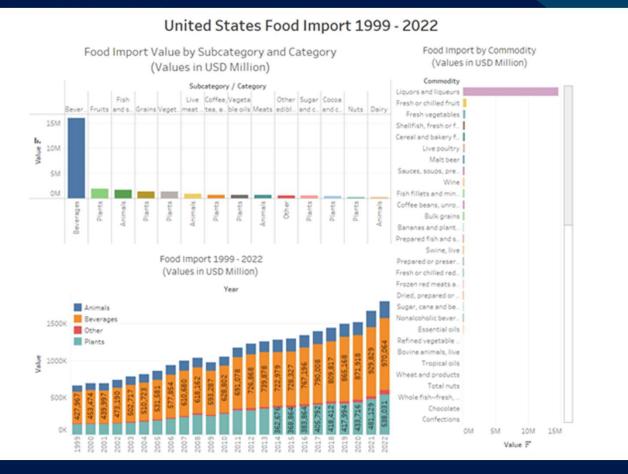
Where can I learn more?

Tableau – Data Visualization



Where can I learn more?

Tableau – Data Visualization



Process Health Documentation

Process Documenting Purpose

- To capture detailed description how to execute design process.
- To align teamwork around the project scope, objectives and encourage the clarity.
- To outline the steps needed to perform assigned tasks from start to finish in each Sprint.
- To keep up to date with the design intent and inform stakeholders throughout the Sprints cycle to DW implementation and deliverable.

Purpose Description

Curiosity - Data set

The purpose of the data set is to allow us to derive actionable insights regarding US food imports Cover Memo: Project Heath Documentation

This data set is vThis Go Green project delivery memo summaries of what happened during the past few weeks OF AGRICULTUR of the project work. The team has considered this documentation as an opportunity for

stakeholders (herein instructor) to stay informed on how well the team sticking to the project plan and how informative project health disseminated in the constructed data warehouse at present stage to upcoming Sprints. In addition, this is a chance for the team to look at the project risk management process, and be proactively identify backlogs and overcome any issues before they impact the project timeline.

High-Level Project Overview

By doing planning technical also bein

DA 485 Capstone Project

Assignment #4 – Sprint 2 Completion | Sprint 3 Start Process Health Documentation



Description

This Go Green project documentation is used to guide the execution of Sprint02 activities and control of the team project throughout the data warehouse design lifecycle. The project health documented also captures the project milestones as references of scope, objectives, schedule, overall planning, assumption, decisions.

responsibility, and approved design



US Food & Beverage (1999 – 2020)

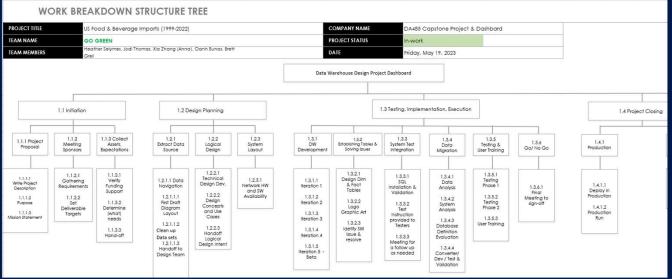
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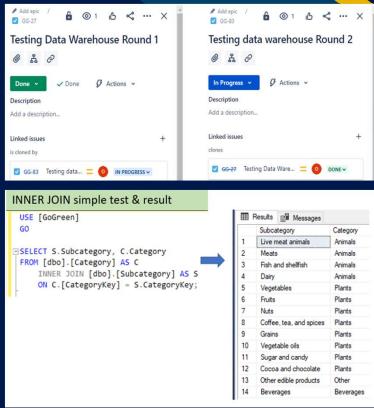
eam Members: Heather <u>Selvmes</u>, Jodi Thomas, Oanh Bur (ia Zhang (Anna), Brett <u>Grett</u>

Oanh Bunas – PO Process Health Documentation, Assignment Responsibility, Testing Procedures, User Training, Dev. Team member, Tester

WBS, Testing Procedures, User Training

Sample of WBS, Testing, and Training





Lessons Learned... Challenges and Business Benefits

What went well?

- Teamwork and collaboration
- Agile Methodology
- Process Documentation

What didn't go well?

- Search for data source
- Version control for selected software

What are the project benefits?

- Delivers impactful business insights to the stakeholder
- Scalable and secure data warehouse
- Project is capable of both exploratory and predictive data analysis

What could we have done differently?

- Cloud based Data Warehouse
- Found a UI Developer
- Created a GitHub repository for code and documents

Conclusion

Summary

This project has enabled Team Go Green to work together and utilize the skillsets studied in this academic program to:

- Perform data cleaning, data normalization, and data analysis
- Transform data to information, script and design SQL database
- Build data story dashboards and provide market insights
- Meet stakeholder requirements and customer needs

Thank You!

DMA Program, Professor Pratima Suneel, and audience for your time and attention

Questions & comments are welcome

References

Data resources and references used in this project:

USDA ERS - U.S. Food Imports. (n.d.). https://www.ers.usda.gov/data-products/u-s-food-imports/

Atlassian. (n.d.-b). Jira | Issue & Project Tracking Software | Atlassian. https://www.atlassian.com/software/jira

MasterClass. (2021, July 22). RAID Project Management Guide: How to Use a RAID Log - 2023 - MasterClass. https://www.masterclass.com/articles/raid-project-management

Images retrieved from:

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nbcnews.com/j/MSNBC/Components/Video/ NEW/nn 01nsn safefood 130726.1200;630;7;70;5.jpg

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