

Udacity Data Visualization Nanodegree

Design a Data Dashboard

Midterm Project

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PROJECT OVERVIEW

Introduction

A start-up called Sales_Rocket wants to analyze the data they've been collecting on their sales across the nation. Management has a few questions they'd like easy access to. Currently, they answer these questions through spreadsheets scattered about and a variety of different tools. Unfortunately, none of the spreadsheets and tools neatly combine all their answers into one.

They would like a dashboard designer to go through each question and try to come up with a way to display their data in a way that is neat and intuitive, even for the less data-savvy among them.

Project Overview

In this project, I will apply what I have learned about designing with the audience in mind to build a useful dashboard prototype. To complete the project, I will create a prototype that allows users to intuitively answer the series of questions below. I will be using Tableau to develop the prototype using the Superstore dataset.

Questions:

Using the Superstore data file, I will create dashboards to answer each of the following questions.

1. Dashboard shall display the data such that the audience can arrive at the answer.
2. What is the most profitable City in the State of Tennessee?
3. What's the average annual profit for that city across all years in that city?
4. What's the most profitable product category on average in Iowa across all years?"
5. What is the most popular product in that category across all states in 2016?
6. What was the most profitable month in 2018 overall?
7. How widely did monthly profits vary in 2018?

Project Instructions

Below are steps I followed to complete each component of this project.

Step 1. Download and Set up

- Download the Sample Superstore data file on the next page
- If using Tableau, open the CSV file within Tableau and explore the data
- If using PowerBI, download and install the latest version of Power BI Desktop on your machine.

Step 2. Explore and Create a Sketch

- Read through every question to first understand what data you will need.
- Create a **sketch** of the charts that you think will appropriately answer the user's question.
- Take photos of your sketches and add them to the `Data Dashboards_Project 1_Template for Project Submission` file located [here](#)

Step 3. Create Wireframes

- Create multiple **wireframes** until you have your charts neatly organized
- Take photos of your wireframes and add them to the `Data Dashboards_Project 1_Template for Project` file
- You can use [Google's PhotoScan](#) to take a high resolution image too.

Step 4. Create Proof of Concept Dashboard

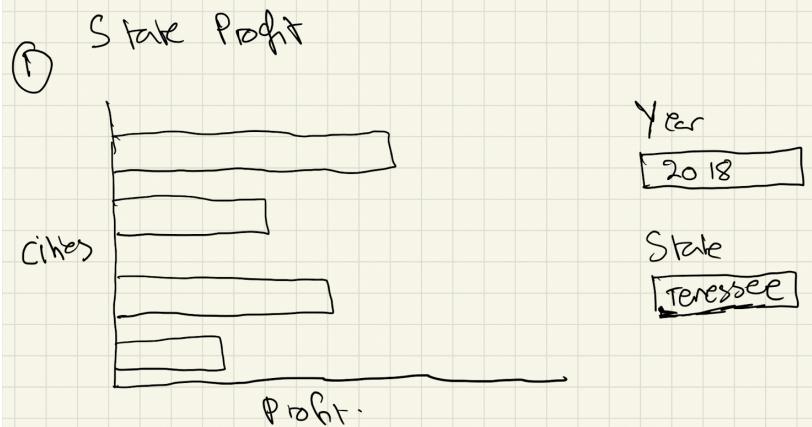
- Your charts should be able to answer multiple questions
 - *Hint:* Use filters and toggles to allow the user to explore the data in multiple ways
- Be sure to respect the constraint of “getting it right in black and white”
- Develop your proof of concept dashboard in your tool of choice
- Remove unnecessary charts where appropriate

Step 5. Get your Submission Files ready

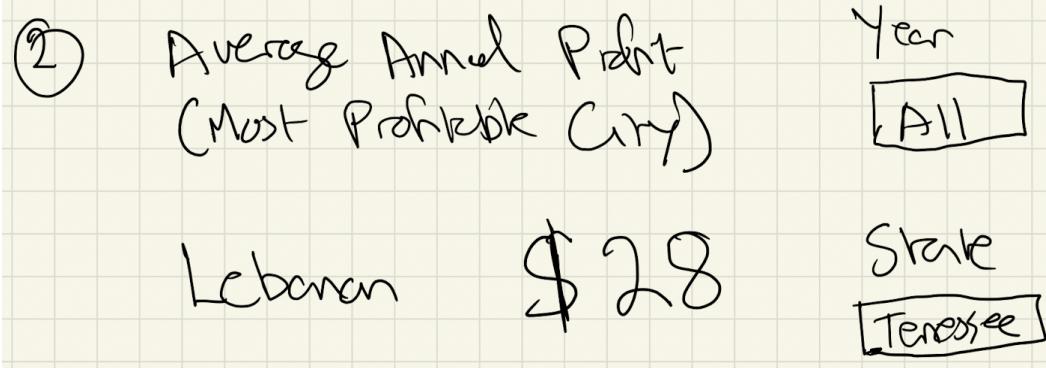
- Upload your file and your `Data Dashboards_Project 1_Template for Project Submission` file on the **Project Submission** page

SKETCHES

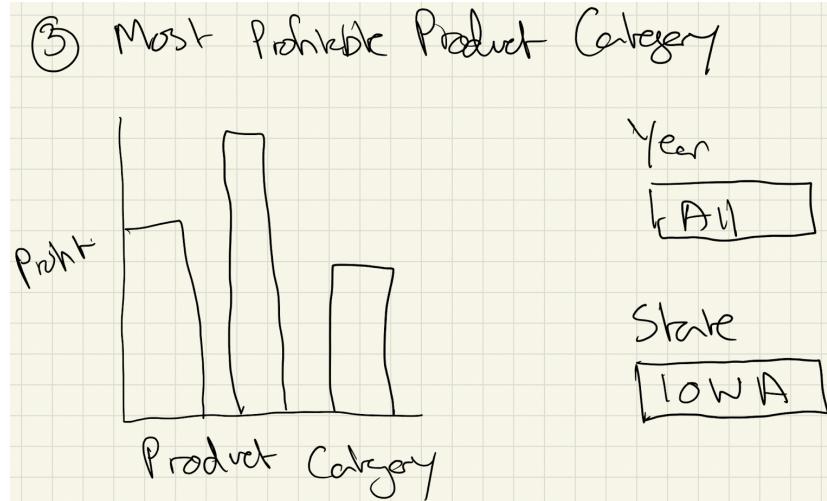
Q1. What is the most profitable City in the State of Tennessee?



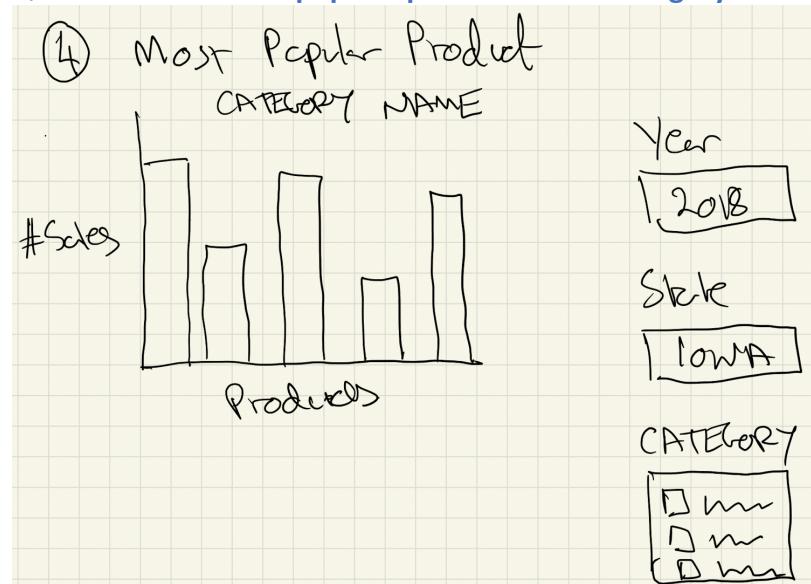
Q2. What's the average annual profit for that city across all years in that city?



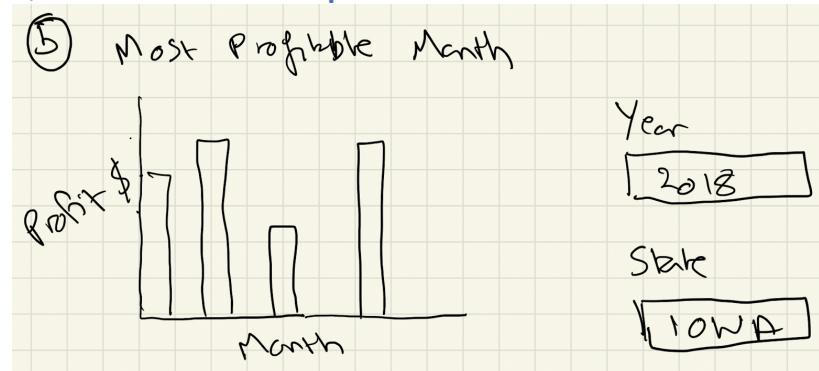
Q3. What's the most profitable product category in Iowa?



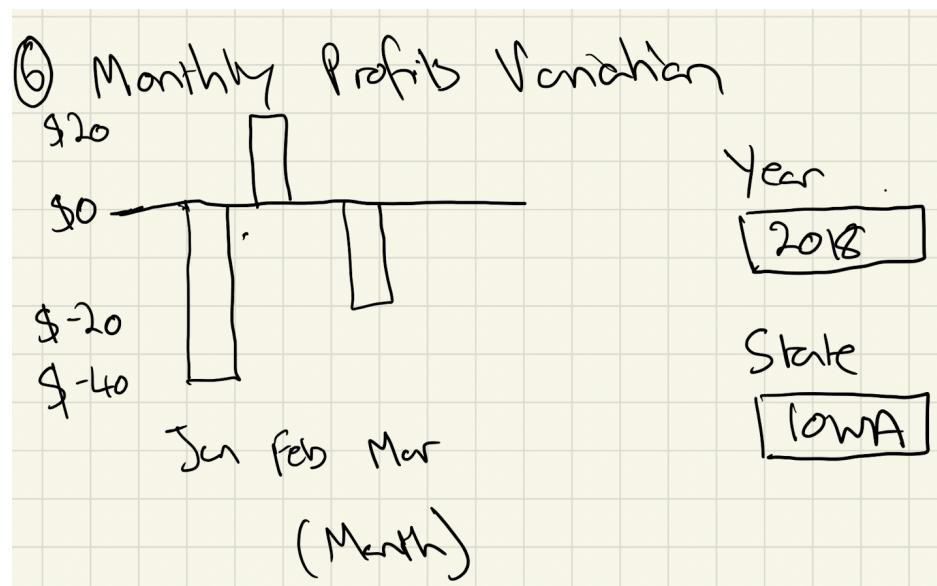
Q4. What is the most popular product in that category in 2016?



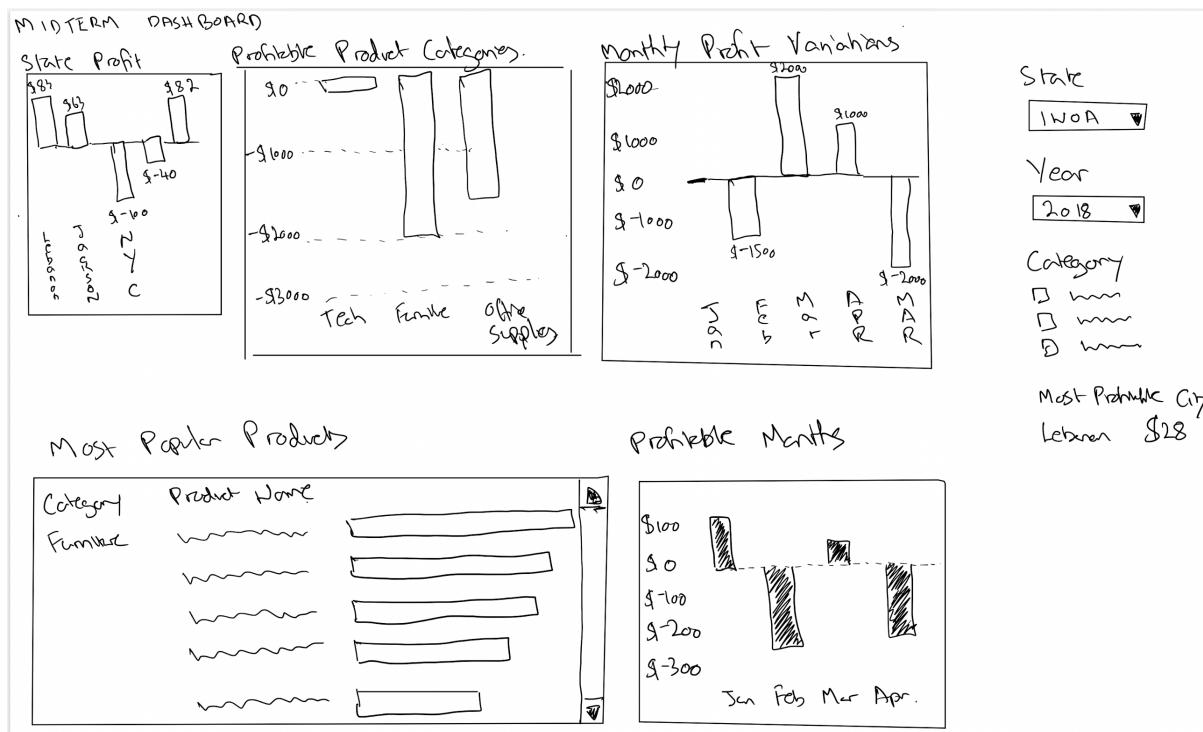
Q5. What was the most profitable month in 2018 overall?



Q6. How widely did monthly profits vary in 2018?

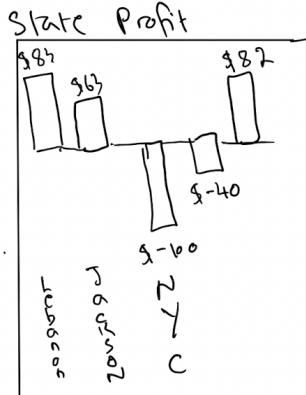


WIREFRAMES



Q1. What is the most profitable City in the State of Tennessee?

Set the state picklist to 'Tennessee' and Year to 'All' to see the most profitable city (Lebanon) across all years. I choose bar chart.



Q2. What's the average annual profit for that city across all years in that city?

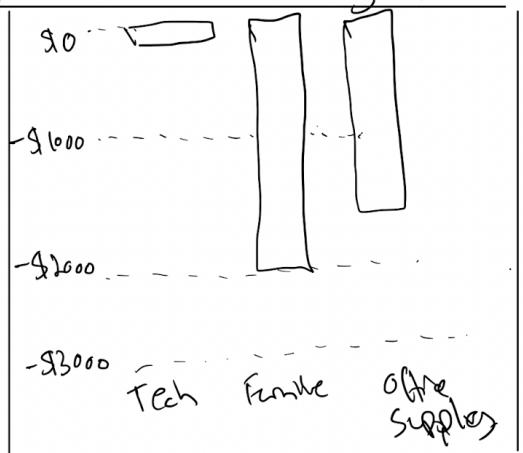
The following is a 'Metric' widget and shows the average annual profit for the most profitable city in a given state.

Most Profitable City
Lebanon \$28

Q3. What's the most profitable product category in Iowa?

Set the state to 'Iowa' to view the most profitable product category for any given year. I chose bar chart.

Profitable Product Categories.



Q4. What is the most popular product in that category in 2016?

Using a table widget to show the most popular products in a selected category(s) by the total number of sales for each, in descending order.

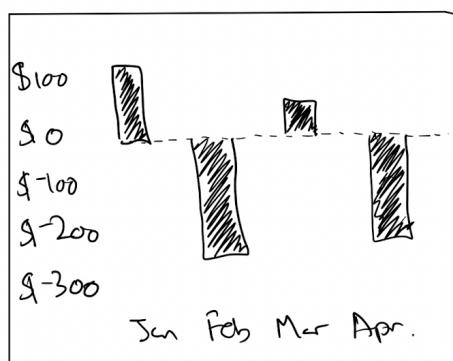
Most Popular Products

Category	Product Name
Furniture	Wavy Line 1
	Wavy Line 2
	Wavy Line 3
	Wavy Line 4
	Wavy Line 5

Q5. What was the most profitable month in 2018 overall?

A bar chart was chosen here.

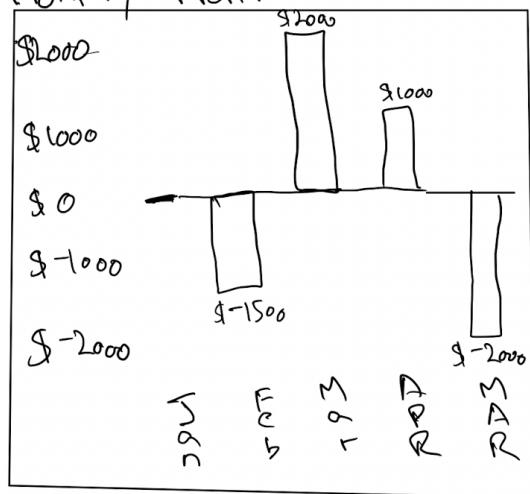
Profitable Months



Q6. How widely did monthly profits vary in 2018?

This widget shows the swing in profits in relation to the previous month to illustrate how profits varied in a selected year, via bar chart.

Monthly Profit Variations



PROOF OF CONCEPT

The following is a link to the proof of concept dashboard I created:
https://public.tableau.com/views/Udacity-DataDashboardMidtermProject/DataDashboard?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

