# Overview

The purpose is to identify trends in prices and discounts and predictions for discounts for televisions sold by Best Buy by comparing two months. Additional analysis of the inventory such as highest selling, lowest selling based on brand, TV size, TV type and pixel type will also be done. This is an extension of BestBuy Project 3.

# Review of current Flask App

The App from Project 3 used data scraped from the BestBuy Canada website. This data was use to show the following on a dashboard:

Display inventory i a table format, which could be filtered by

# Requirements & Analysis

## Data Collection

### Refine Data Preprocessing

* 1. If no discount found, show as zero and not NA
  2. If no price is found, remove the item from the dataset.
  3. Remove Amazon Echo from the dataset, as these are not televisions. Project 3 dataset, show NA for TV type, size and pixels..

### Get Additional Data

* 1. Rerun data collection (web scraping) Python script created in Project 3, with additional updates, as indicated previously..
  2. Add month field to CSV and database to indicate month associated with the data retrieval. Project 3 data will have June, and current data July.
  3. Merge data from Project 3 and current download to create final dataset.

## Data Visualization

***Note: Need to decide which visualizations to create in Tableau/Power BI and which to update the Flask App***

### Compare months

* 1. Show TVs on discounts for both periods. Include discounts for both periods.
  2. Show TVs with increase in original price
  3. Show TVs with reduction in original price

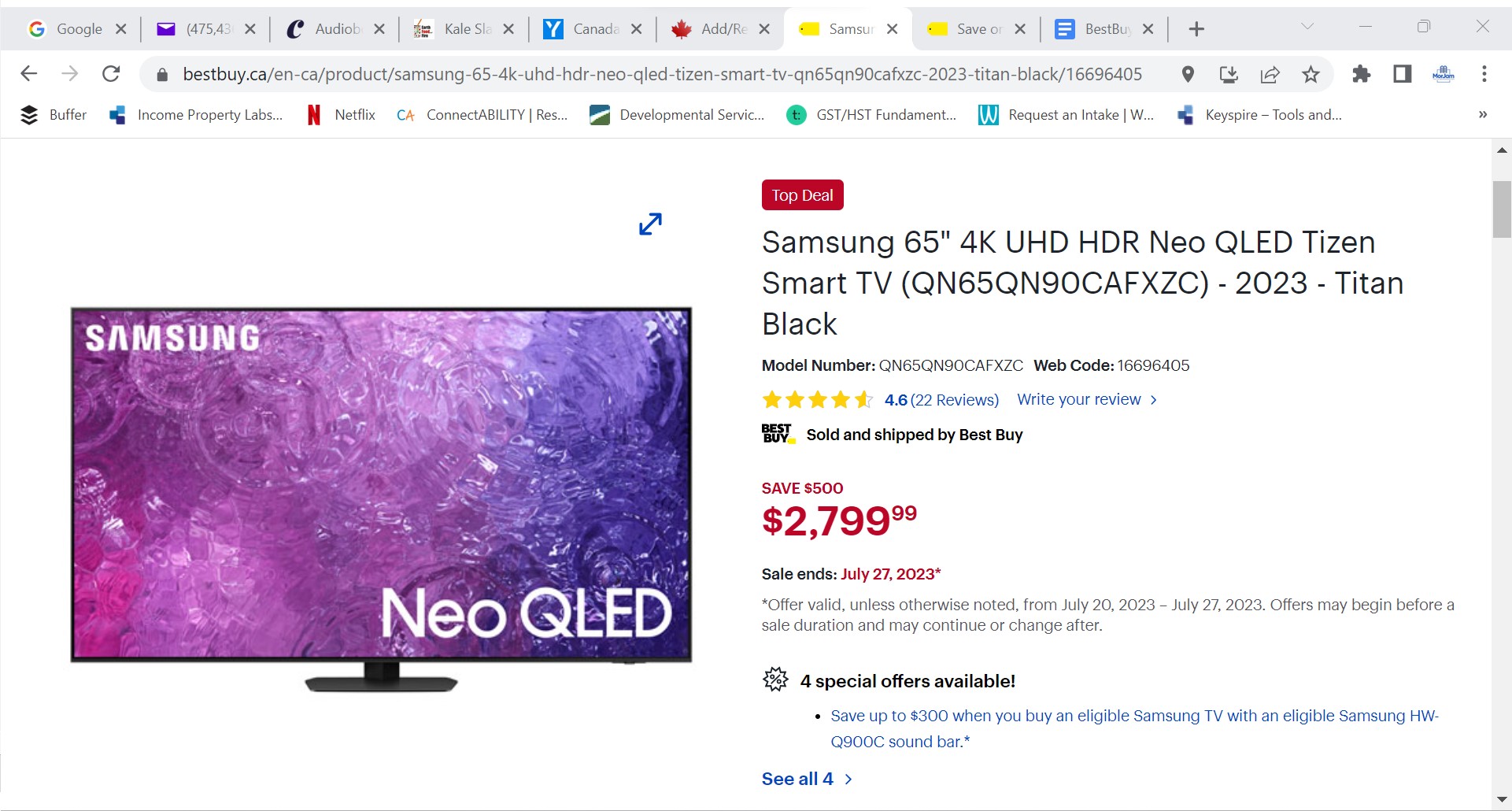
### Others

* 1. Top ten popular TVs overall based on number of reviews
  2. Top 5 popular TVs for a each TV size, TV Type, TV Pixels
  3. Show top 5 TV sizes
  4. List of brands available
  5. TBD

### Price Discount:

Best Buy Canada website clearly displays regular prices, sale prices and discounts on their website.

* Sale prices are displayed in red;
* Discount is shown as “SAVE $xxx”.
* Regular price in black with no “SAVE $xxx

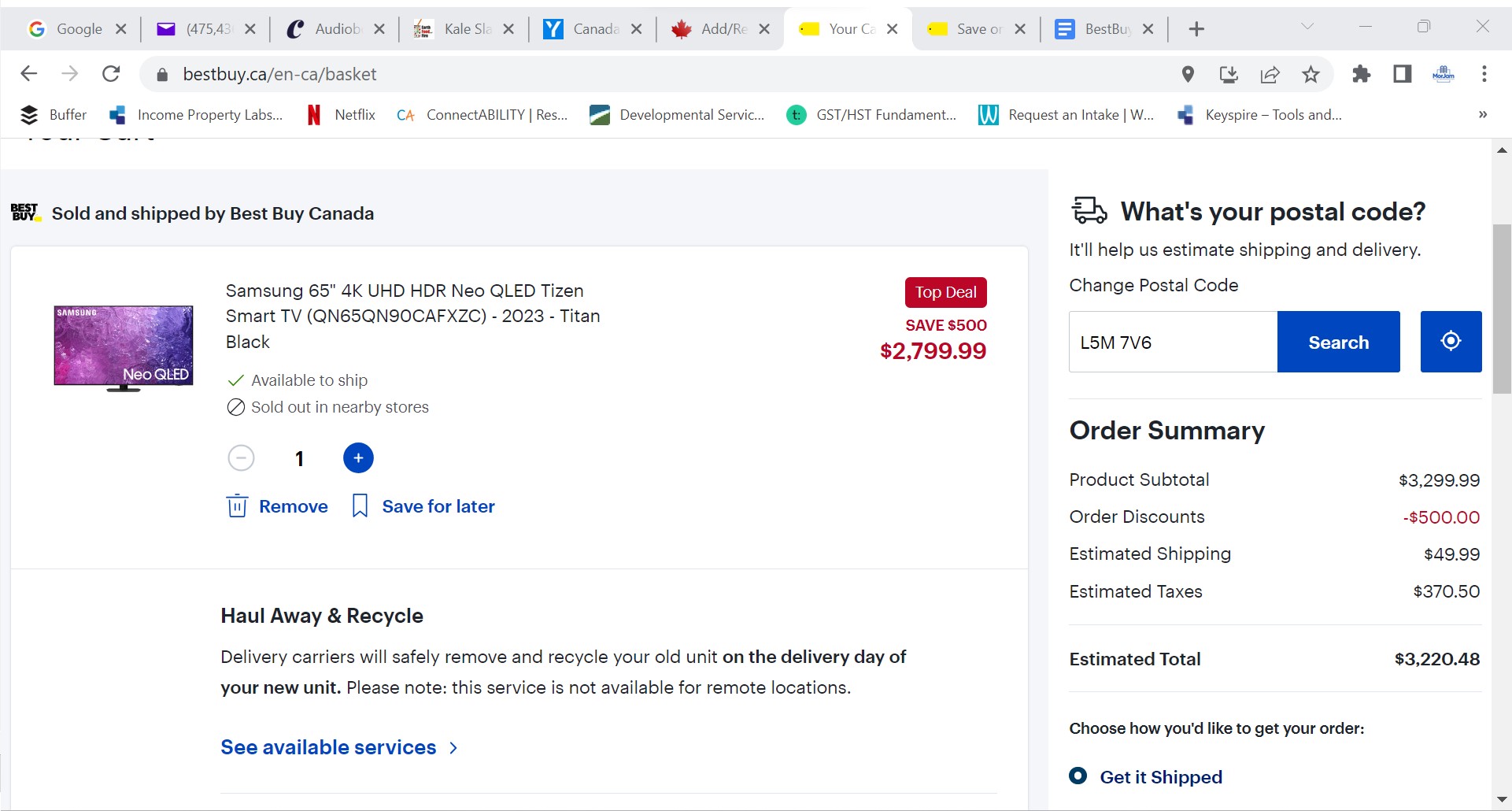


**Figure 1 - Example sale item**

The Order summary as shown in the figure below. is explained as follows:

* Product Subtotal = Sale price ($2799.99) + Discount amount ($500) = $3299.99
* Order discounts = SAVE $500

Therefore, the original price is then price + discount amount.



**Figure 2 - Cart showing original price of TV on sale**