**Meeting Notes: Data Scraping Exploration for Costco Reviews and Instagram Posts**

**Date:** January 15, 2025  
**Objective:** Explore and experiment with various methods to scrape product reviews from Costco.com and Instagram posts related to Costco.

**1. Exploring Instagram for Costco Data**

We aimed to scrape Instagram posts for Costco using GraphQL queries. The primary focus was on obtaining the user\_id for Costco's account and identifying the query\_hash for fetching posts.

* **Resources Used:**
  + [Scrapfly Article: How to Scrape Instagram](https://scrapfly.io/blog/how-to-scrape-instagram/)
    - This article provided guidance on scraping Instagram data, specifically using GraphQL queries. It included an example for Google, which we aimed to replicate for Costco.
  + [Reddit Thread on Instagram GraphQL Query Hash](https://www.reddit.com/r/webscraping/comments/1ak3op8/how_i_can_get_instagram_graphql_query_hash/)
    - Discussed methods to find the query\_hash for Instagram's GraphQL API. We explored suggestions like inspecting network requests in the browser's developer tools.
  + [Stack Overflow: Instagram User ID from Username](https://stackoverflow.com/questions/11796349/instagram-how-to-get-my-user-id-from-username)
    - Provided techniques to extract the Instagram user\_id using tools like browser developer tools or third-party APIs.

**2. Scraping Product Reviews from Costco.com**

We experimented with multiple approaches to scrape product reviews from Costco's website.

* **Methods Attempted:**
  + **Web Scraping Techniques:**
    - **Requests & BeautifulSoup:**
      * Initial attempts using BeautifulSoup yielded no results for review data, likely due to JavaScript rendering.
    - **Selenium:**
      * Used for rendering JavaScript-heavy pages but required more setup and performance overhead.
  + **Apify's Costco Scraper:**
    - [Apify’s Costco Scraper](https://apify.com/) provided an easy-to-use tool for extracting product reviews but required an API key and some configuration.
  + **Other Tools & Resources:**
    - [Costco Reviews Extractor](https://costcoreviewsextractor.extensionsbox.com/)
      * A browser extension-based scraper specifically designed for Costco reviews.
    - [Unwrangle Costco Product Reviews API](https://docs.unwrangle.com/costco-product-reviews-api/#__tabbed_1_2)
      * Documented API for fetching Costco product reviews, offering structured access to reviews and ratings.

**3. Additional Research**

* [Stack Overflow: Get GraphQL Whole Schema Query](https://stackoverflow.com/questions/37397886/get-graphql-whole-schema-query)
  + Investigated how to retrieve the GraphQL schema to better understand query parameters for Instagram and other platforms.