Price Comparison Tool

Detailed Project Description:

We aim to build a tool that can compare prices from different websites and display optimal prices for a given product in one place.

To achieve this goal, we focus on the following:

1. Fetching prices from two or more different websites. (Web Scraping)

2. Storing data in the CSV file.

3. Displaying the lowest price website

4. Visualize prices

5. Program to send lowest price website through user input email

Web Scraping: Web scraping is a process of collecting relevant information from a particular webpage and then exporting that information in a proper format according to our needs

Git hub Link: git@github.com:Lakshmi1536/Price-Comparison-Tool.git

Programming Concepts used in this Project

Libraries/Packages used in this project:

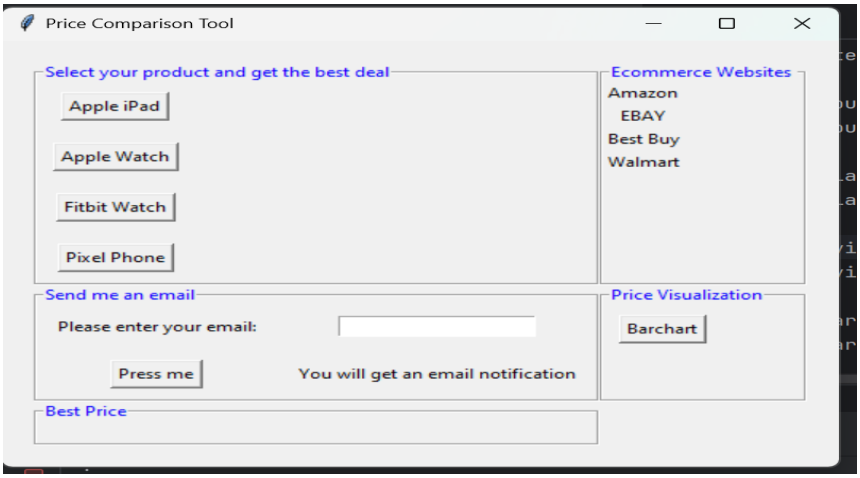
- Beautiful Soup-Helps in extracting data out of markup languages like HTML and XML
- requests- “pip install requests”- command to install the requests library. It provides a simple and elegant API for interacting with web services and consuming data from various sources
- smtplib- module provides a convenient way to interact with SMTP (Simple Mail Transfer Protocol) servers for sending email. This program used Outlook SMTP server.
- Matplotlib- For creating static, animated, and interactive visualization
- tkinter- GUI toolkit
- csv- comma-separated value files

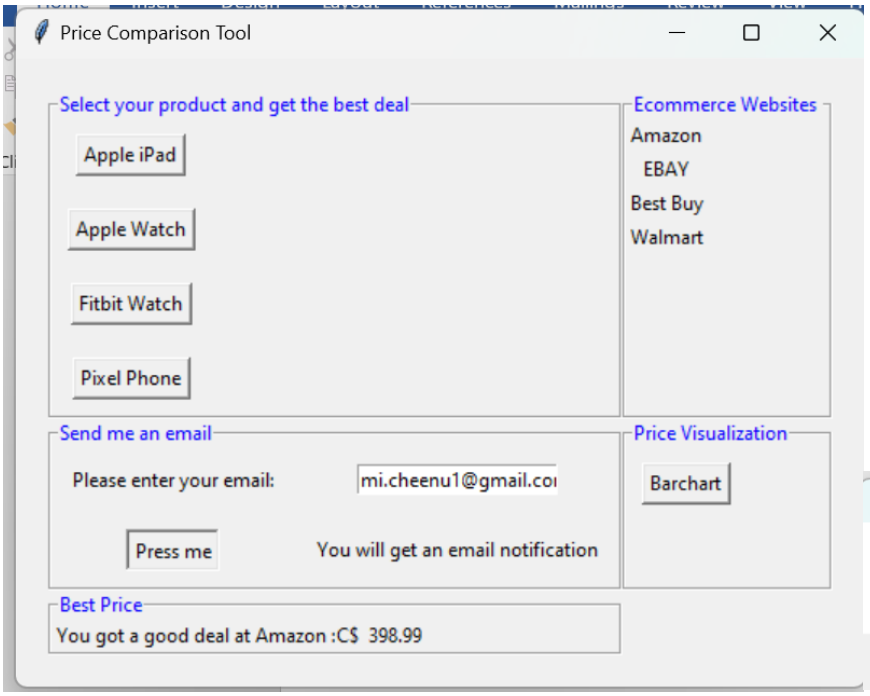
To Populate headers, we use “User Agent”. To get a user agent google “my user agent”.

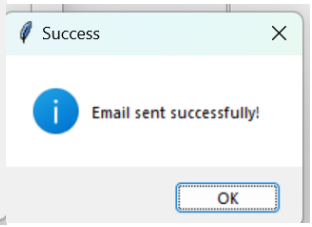
Techniques Learned in this project:

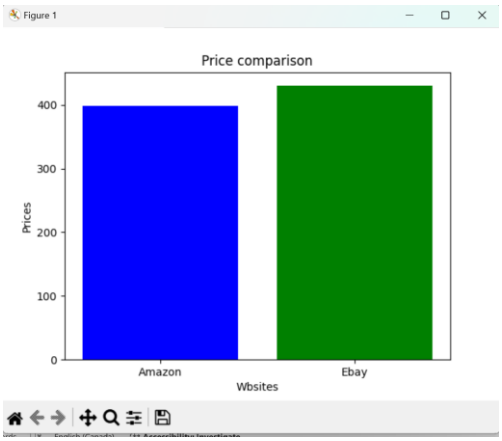
Web Scraping, Data Visualization, methods, GUI tool creation, and email generated using smtplib.

Screenshots:









CSV File:

```
Website_Name,Product_Name,Price,URL

Amazon,"Apple iPad (9th Generation): with A13 Bionic chip, 10.2-inch Retina Display, 64G

ebay,Apple iPad 9th Generation 10.2-inch 64GB Wi-Fi Space Gray (2021 Model) A2602 New,42

Amazon,"Apple Watch Series 9 [GPS + Cellular 41mm] Smartwatch with Midnight Aluminium Ca

ebay,Apple Watch Series 9 41mm GPS With Sport Band - NEW SEALED,464.55,https://www.ebay.
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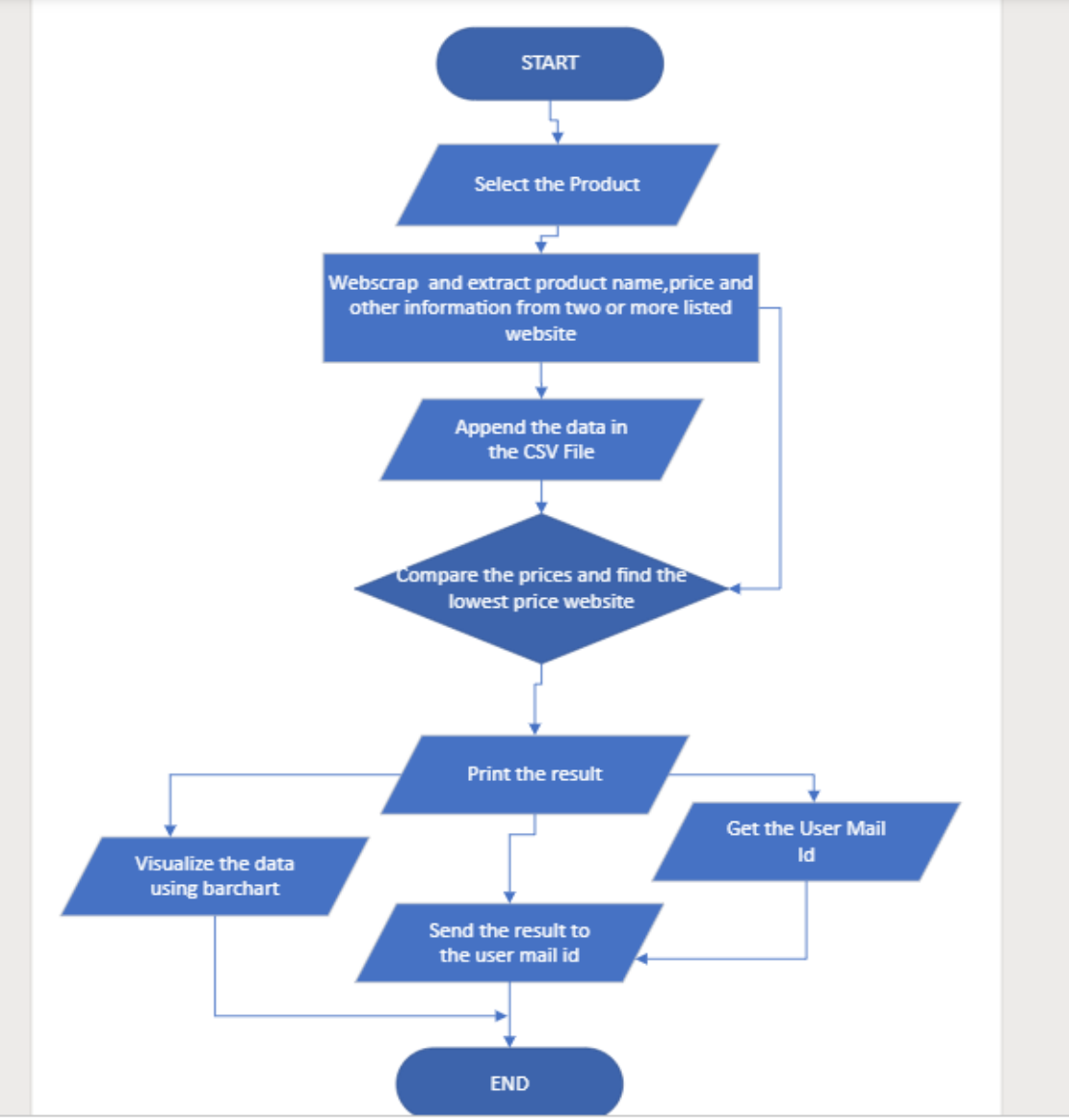
Overall Flow of the program:



Functions:

def best_ipad(): Compare the price by web scraping two or more websites and display the lowest price website detail.

def best_apple_watch(): Compare the price by web scraping two or more websites and display the lowest price website detail.

def show_bmi_barchart(): display the bar chart by comparing prices and websites from the functions like best_ipad,best_apple_watch etc.,

def send_email(): Generate an email with the result ”Lowest price website” to the user input email.