Cheap Staples

In this README, you'll find information on this repo, how to install, and use *Cheap Staples*.

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Description

Cheap Staples is a program designed to assist low-income community members in finding the lowest price for common staple foods around town.

By running the program, the user will be able to select from a given list of items they would like to see price comparisons to.

How to install

Software dependencies

Cheap Staples requires that you have Python3 and Google Chrome installed before proceeding with the installation process.

The latest Python version can be installed from their website: https://www.python.org/
Google Chrome can also be installed from their website: https://www.google.com/chrome/

There are other python libraries that will be required to run the program effectively, but can be easily installed using the installer executable we have provided: `installer.py`

These libraries are:

- Beautiful Soup 4 (bs4)
- mysql-connector-python
- Customtkinter
- Tkinter (standard python library)
- Datetime (standard python library)

Installation

1. **Download** the repository onto your machine. Click the green "<> Code" button to open a submenu, then click "Download ZIP" to save the repository into your Downloads folder.
2. **Unzip** the file within your Downloads folder (or wherever you choose to have saved it).
3. **Run installer.py**. Open command prompt (or terminal if you're on Mac) and navigate your directory to wherever you saved the unzipped repository to. In this example, we'll assume you left it in the "Downloads" folder:

```
cd Downloads/cheap-foods-main/cheap-foods-main/
```

Now that you're in the correct directory, you can execute the python file `installer.py` to install the necessary python libraries. To execute the installer, type:

```
python3 installer.py
```

If you're using an older version of python (not python 3), you may need to type `python` *instead of* `python3`.

After this important file is done running and installing the necessary python libraries the program needs, you're good to go to begin using *Cheap Staples*!

How to use Cheap Staples

1. **Run CheapStaples.py**. Open your command prompt (or terminal) and navigate to This is the main file which will run the entire program. From there, you have a couple options to what you can do:
    - View Staple Prices
    - Update prices

View Staple Prices

a. **Select the items** you wish to view by clicking the checkboxes next to their names
b. **Press "View Selected" button.** This will take all the items you've selected and format their prices across various stores onto a table for you to see.

Alternatively, by ***pressing the "View All" button***, it'll display a table with all the food prices as if all the of items were checked.

Updating the data:

c. **Press "Update Prices" button**. This is all to this step, this will call upon the web scraper to grab the current prices and apply them to the online database.

WARNING: The scraper may take some time to update to execute (~1-2 minute), and until you see the "Last updated: <time>" get updated. The program must remain running for the data to be able to successfully update. Do not close it. It will notify you when the data is updated.

UI Buttons

View Selected	- Display a table of price comparisons for all currently selected items
View All	- Display a table of price comparisons for all items
Update Prices	- Update the prices within the database

Files

Main Files

CheapStaples.py	- The main executable file to run the *Cheap Staples* program
installer.py	- Executable python file to install all needed python libraries
README.pdf	- Informative instructions on how to use the repo
UI.py	- Creates the user interface

Scrapping Files

Safeway_Scraper.py	- Web Scraper to grab prices from Safeway and update prices in MySQL database
Target_Scraper.py	- Web scraper to grab prices from Target and update prices in MySQL database

Database & Processing

Table_Class.py	- Declaration of custom Python class "Table" used to format data retrieved from the database
database_functions.py	- Processes UI.py's output to retrieve data from MySQL database & process it into a "Table" format

Folders

Documentation	- Folder for repo documentation, instructions, and information

Contributors

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