**Introduction**

I have developed a Command Line based Applications using “Python” as programming language. Answered three questions each in different scripts by automatically downloading the CSV from the source and loading the data.

**Instructions to execute:**

**Note:**

**1.To Execute the scripts you must navigate to the folder where the scripts are present in the command prompt**

**2. In two brand names there are spaces in between. So invoke the arguments using double quotes “ ” when using**

* **Red Bull and**
* **5 Hour Energy**

1. **A script file to identify the strongest retailer affinity relative to other brands.**

**Logic**: When user passes the brand he/she is interested as an argument then firstly I am identifying the retailer who is selling maximum number of items of that brand and then checking if that retailer has maximum sales for that brand across all the brands he/she is selling. If it is true, then that retailer has strongest affinity for that brand or else the process repeats.

**How to Interpret the Graph:**



Here the focus\_brand passed as argument is “Monster”. So, first identifying which retailer has the maximum sales in the first graph for that brand. It is Walmart and in the second graph checking the sales for each brand for Walmart and it shows that it is highest sales for Monster among all the other brands. So, the strongest retailer affinity for Monster is “Walmart”.

**How to Execute:**

Command: Python filename.py <focus\_brand>

Example: Python Ques1.py Monster

1. **A script file that returns the number of households for the given arguments**

**Logic:** When different attributes are given, considering that data by grouping and applying the conditions and later counting unique number of households based on USER ID attribute.

**How to Execute:**

Command: Python filename.py -b <brand> -r <retailer> -sd <start\_date> -ed <end\_date>

Example:

1. Python Ques2.py -b Monster -r Walmart
2. Python Ques2.py -b “Red Bull” -sd 01/04/14 (Red Bull placed inside double quotes””because of space present between two words)
3. **A script file to identify brand with top buying rate.**

**Logic**: Identified the number of dollars spent by calculating from the number of items purchased (Item Units) and cost of each item (Item Dollars) and then dividing it with the unique number of households.

**How to Execute:**

Command: Python filename.py

Example: Python Ques3.py