**Case #2**

* Due Friday by 11:59a.m.
* Points 100
* Submitting a file upload
* File Types ipynb
* Available Mar 2 at 10a.m. - Mar 9 at 11:59p.m.

Hi Class,

Please answer the following questions related to the BigBasket case study.

1.  Examine the data and uncover valuable insights using exploratory data analysis (EDA).

2. Develop a generic code to create a smart basket for a given member ID by utilizing the Apriori algorithm. Your generic code should be structured as follows:

**def apriori\_recommender(df, member\_id, min\_support, top):**

**# Implement Apriori algorithm here**

This function takes a DataFrame `df`, the `member\_id`, `min\_support`, and `top` (number of items to recommend) as input parameters. Its purpose is to produce a tailored basket recommendation for the specified member.

As an example, print the recommended basket for member\_id='M36432' with min\_support=0.1 and top=3."

3. Develop a generic code to recommend a set of n missing products in a shopping basket using the Cosine similarity measure. Your generic code should be structured as follows:

**def cosine\_missing(df, order\_id, top):**

**# Implement Cosine similarity algorithm here**

This function takes a DataFrame `df`, the `order\_id`,  and `top` (number of items to recommend) as input parameters.  Its purpose is to generate a 'Did you forget?' recommendation for the specified order. Print the missing 3 items for order\_id = 6468572 as an example."

4. How might you verify the validity of your recommendation? (Simply describe your proposed method).

The due date for submission is Friday, March 8 st at 11:59 am. Late submission is not accepted. Please upload your assignment in ipynb format.

More details about the case can be found at <https://q.utoronto.ca/courses/340643> and dataset at [/courses/340643/files/30229811?wrap=1](https://q.utoronto.ca/courses/340643/files/30229811?wrap=1)

Good luck!

Akram