**Assignment Instructions: Market Basket Analysis**

**Objective:** Develop a Streamlit dashboard to perform and visualize market basket analysis based on provided test data.

**Development Requirements:**

1. **Web Application Framework**: Use Streamlit to build the application.
2. **Data Input**: You will receive a test dataset alongside email. The dataset includes the following fields:
   * **basket\_id**
   * **sku\_name**
   * **brand\_name**
   * **Category**
   * **Group**
   * **spend**

**Application Features:**

1. **Filters**:
   * **Filter [a]**: Implement dropdown menus to allow viewing data by:
     + **sku\_name**
     + **brand\_name**
     + **Category**
     + **Group**
   * **Filter [b]**: Based on the selection from Filter [a], display a second dropdown menu showing all unique values for the selected entity.
2. **Output Charts**:
   * **Chart 1**: Create a scorecard displaying the percentage of baskets where the entity chosen in Filter [b] is bought alongside any other item.
   * **Chart 2**: For all baskets containing the selected entity from Filter [b], generate four separate bar charts visualizing ‘associated basket score’ [*as per chosen association rules mining algorithm*]
     + **sku\_name**
     + **brand\_name**
     + **Category**
     + **Group**
   * **Sorting**: All bar charts should be sorted in descending order based on ‘associated basket score’.

**Dashboard Usage Example**: User selects ‘sku\_name’ in filter A, then user selects ‘Coca Cola 300 ml’ in Filter B. Upon the selection, the user should able to view percentage of baskets where Coca Cola is bought alongside any other sku\_name’. And in those cases, what are top sku\_name, brand\_name, Category and Group – visualized in separate bar charts.

Note: Wherever necessary, please make assumptions and proceed accordingly.

**Deliverables:**

* **Zipped Folder**: Submit your work as a zipped folder containing:
  + The **.py** file for the Streamlit application.
* **Deployment**: The application should be easy to deploy and run on a local machine using Streamlit.