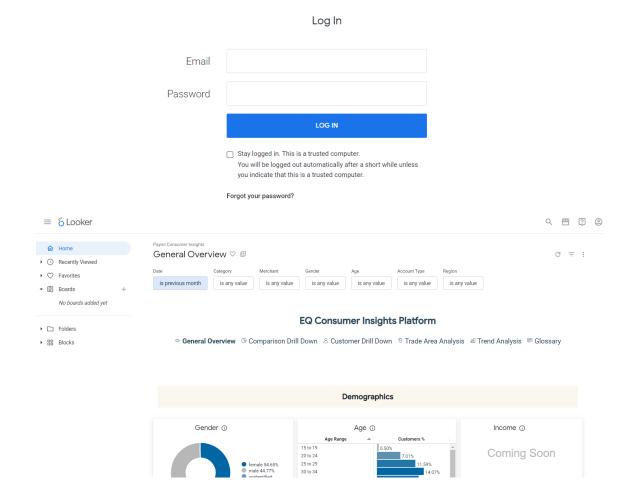
## **Testing Objectives**

- 1. Identify any issues that currently exist on the dashboard and categorize them in two segments:
  - a. UI/UX issue: any issues related to design, format, structure of the dashboard, dataset, or charts;
  - b. Logic issue: any issues related to the data itself, including suspicious discrepancy between different datasets, missing datasets, etc.
- 2. Modify or resolve each issue accordingly to improve user experience; prioritize on repetitive issues which occur multiple times across the dashboard.

## **Testing Procedure**

1. The following testing procedure, including all descriptions and screenshots, is based on the QA testing process of EQ's retail dashboard on Looker. First of all, sign in with credentials to obtain access to the retail dashboard.





- 2. Based on the contents of the dashboard, create a QA testing template on Google Sheets. For the retail dashboard, since there are five sections to be tested, create a tab on Google Sheet for each of the six testing sections, and create an additional tab named "General Observations". Thus, the tabs opened on the template include:
  - a. General Observations
  - b. General Overview
  - c. Comparison Drill Down
  - d. Customer Drill Down
  - e. Trade Area Analysis
  - f. Trend Analysis

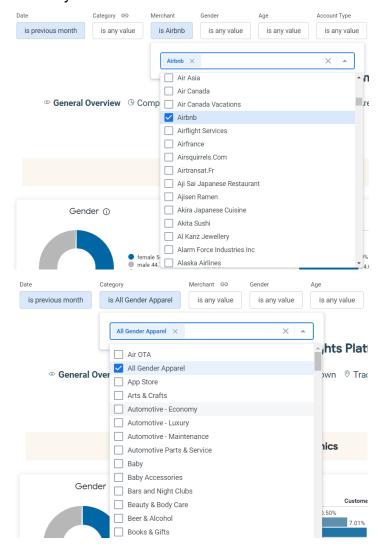
The "General Observations" tab will record all repetitive issues that exist across the entire dashboard (i.e. an issue that exists in both General Overview and Trend Analysis); for any one-time-occurring issues observed on any particular section, record them in their allocated tabs.

Please view the testing template for reference:

Looker Retail Dashboard QA Testing Template

- 3. Assign testing filters to be used for each section; when selecting filters, keep in mind that:
  - a. Prioritize on popular filters that generate sufficient data if a filter generates very little data, less data available, less value the data can be used as reference;
  - Assign different filters for each of the five testing sections more filters tested, more issues emerged potentially.

For example, in the retail dashboard, categories that generate lots of data include: QSR, Automotive, Dine In, Default / Uncategorized, Travel, All Gender Apparel, etc; merchants that generate lots of data include: Airbnb, Walmart, Loblaws, Indigo, Honda, Tim Hortons, etc. These categories or merchants are assigned as the testing filters for different sections. Additionally, select a different date range for each of the categories or merchants to make testing results more complex and diverse. Other than date range, category, and merchant, all other filters are set to "any value".

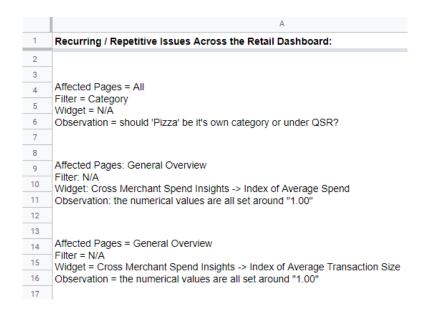


- 4. After selecting the filters, set up the structure of the testing template. For example, for the retail dashboard, the sub-headings for each testing section include:
  - a. Filter Used
  - b. Date Range
  - c. Chart Category
  - d. Chart Type
  - e. Data Visualized
  - f. Observations
  - g. Testing Date



Then, set up the structure of the "General Observations" tab. For example, for the retail dashboard, the sub-headings include:

- a. Affected Pages (affected testing sections)
- b. Filter Used
- c. Widget (chart or dataset the issue takes place)
- d. Observation



In this scenario, input the pre-assigned filters and date range; input chart category and chart type (preferably in the same order as how the dashboard displays the charts); input checkboxes under "Data Visualized"; leave "Observation" empty for now; enter the testing date.

- 5. Start the testing. Fill out the testing template:
  - a. If the dataset is visualized, check the box under "Data Visualized", otherwise, keep it unchecked;
  - b. If an issue exists within a specific chart or dataset, write down a
    description of the issue under "Observations", if no issue identified, leave it
    blank;
  - c. If an issue occurs repetitively, record this issue in the "General Observations" tab.
- 6. Compline all observations into a summary document, make sure to:
  - a. Categorize every issue into an issue type;
  - b. Attach at least one screenshot for each issue.

Please view the testing observation summary for reference:

■ Retail Dashboard QA Testing Observation Summary