## 3.3 Exercise Solution

#### Data summary:

A Fitness retail store ‘Cardio Good Fitness’ wants to analyze the demand for its treadmill products. For this, it has collected data on customers such as their Age, Gender, Marital Status, Education, etc. . Further, it has also sent a survey to collect information on the miles run by the customers on the treadmills in the last month (this data is captured automatically in the treadmill) they have bought previously.

#### Problem Statement

The store wants to understand its customers based on their profiles such that it can sell the relevant treadmill products to them.

###### Objectives

* Explore the dataset and practice extracting basic observations about the data.
* Perform Univariate and Bivariate analysis using different visualization.
* Generate a set of insights and recommendations that will help the company in targeting new customers.

The data is about customers of the treadmill product(s) of a retail store called Cardio Good Fitness. It contains.

the following variables-

*Column Name Description*

* **Product**: The model no. of the treadmill - TM195, TM498, TM798
* **Age**: Age of the customer in no of years
* **Gender**: Gender of the customer - Male or Female
* **Education**: Education of the customer in no. of years
* **Marital Status:** The marital status of the customer - Partnered or Single
* **Income**: Income of the customer
* **Fitness**: Self-rated fitness score of the customer (5 - very fit, 1 - very unfit)
* **Usage Avg.:** number of times the customer uses the treadmill every week.
* **Miles**: Miles that a customer ran in the last month

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Description automatically generated

Step 1: Map and configure Source Dataset

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Step 2: Data Exploration - Explore and Analyze the Data using Data Explorer component.

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Step 3: Univariate Analysis

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Step 4: Bivariate Analysis

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A screen shot of a graph

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* Use the ‘Threshold Filter’ & ‘Apply Filter’ modules for cleaning anomalous data.
* Apply the ‘Math Operation’ module for any feature engineering.
* Perform One Hot Encoding using the ‘Convert to Indicator Values’ module.