* Problems/Issues faced:
  1. Most of the problems that I faced come from the fact that I do not have the domain knowledge necessary for this particular problem
  2. However, instead of mechanically create features and feed them into a machine learning model, I chose to approach this as a standard business problems, as well as making this easy to communicate to non-technical audience
* Approach/Methodology
  1. I first did data cleaning and data analysis to drive key insights and diagnose what could be the potential problems
  2. For each of the prompt: I provide a progression of solutions: descriptive statistic observation -> explainable model -> complex machine learning model
* Model quality & results
  1. I mostly used SKLearn but would like to experiment with more Deep Learning framework if allowed for more time.
  2. The results are purely scientific and stats-based, and should be verified with either business knowledge or testing
* **PROPOSAL:**
  1. From the descriptive statistics point of view, it is possible to drive upsale for agegroups that are the bridge between the young adult and middle age. This is because they are interested in investment and savings, and have the disposable income to do so.
     1. There is also a gap between gender for the product lines purchased and thus, we can also create customer segmentation based on age and try to drive more male customers
     2. From the apriori results, it is clear that many packages are frequently bought together. It thus could be marketed or bundled in such a way that’s more likely to be received by the customers themselves (such as family bundle)
  2. From the ML perspectives, customers could be segmented by their frequency and monetary value
     1. As such, with the labelled clusters, the company can deep dive into the characteristics of each group that goes beyond the amount of premium they pay. A marketing solution could be tailored to each of these that go beyond the price tag but also how they cater to the specific needs of these groups
     2. Many customers could be encouraged to try out less popular packages like saving, but perhaps with information on the effectiveness of the similar buyers in the same group.
     3. Individualized recommendation results could be coupled with income and occupation information to make the packages more appealing to the customers