**TESTING INSTRUCTIONS**

This data set is one of the publicly available datasets from IBM

<https://www.ibm.com/communities/analytics/watson-analytics-blog/marketing-customer-value-analysis/>

1. Load and show this data Set in programing language of your preference (R, python, go, SQL, PL/Sql, etc.)
   1. analyze it to understand how different customers behave and react to different marketing strategies.
   2. Get the total number of customers who have responded
   3. Visualize this in a bar plot
   4. Calculate the percentages of the engaged and non-engaged customers
   5. Get the engagement rates per renewal offer type
   6. Show count only engaged customers
   7. Show engaged customers grouped by renewal offer type
   8. Visualize it in a bar plot
   9. understand how customers with different attributes respond differently to different marketing messages. We start looking at the engagements rates by each offer type and vehicle
   10. Make the previous output more readable using unstack function
   11. create a pivot the data and extract and transform the inner-level groups to columns
   12. Visualize this data in bar plot
2. analyze how engagement rates differ by different sales channels.
3. Show if whether customers with various vehicle sizes respond differently to different sales channels.
4. Unstack the data into a more visible format (your choice)
5. show engagement rates by months since policy inception and plot
6. create a customer segmentation by clv & months since policy inception
7. show the distribution of the clv.
8. show procedure for months since policy inception and visualize these segments and comment these differences in a chart
9. Show all documentation of your procedures and comments.
10. Prepare a short story telling (use the tools you think relevant) to discuss your conclusions.