**1. Importing the data and inspecting the data**

<class 'pandas.core.frame.DataFrame'>

Index: 2235 entries, 0 to 2239

Data columns (total 46 columns):

# Column Non-Null Count Dtype

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0 ID 2235 non-null int64

1 Year\_Birth 2235 non-null int64

2 Income 2235 non-null float64

3 Kidhome 2235 non-null int64

4 Teenhome 2235 non-null int64

5 Dt\_Customer 2235 non-null datetime64[ns]

6 Recency 2235 non-null int64

7 MntWines 2235 non-null int64

8 MntFruits 2235 non-null int64

9 MntMeatProducts 2235 non-null int64

10 MntFishProducts 2235 non-null int64

11 MntSweetProducts 2235 non-null int64

12 MntGoldProds 2235 non-null int64

13 NumDealsPurchases 2235 non-null int64

14 NumWebPurchases 2235 non-null int64

15 NumCatalogPurchases 2235 non-null int64

16 NumStorePurchases 2235 non-null int64

17 NumWebVisitsMonth 2235 non-null int64

18 AcceptedCmp3 2235 non-null int64

19 AcceptedCmp4 2235 non-null int64

20 AcceptedCmp5 2235 non-null int64

21 AcceptedCmp1 2235 non-null int64

22 AcceptedCmp2 2235 non-null int64

23 Response 2235 non-null int64

24 Complain 2235 non-null int64

25 Number\_children 2235 non-null int64

26 Age 2235 non-null int64

27 total\_spending 2235 non-null int64

28 total\_purchases 2235 non-null int64

29 Education 2235 non-null float64

30 Marital\_Status\_Absurd 2235 non-null float64

31 Marital\_Status\_Alone 2235 non-null float64

32 Marital\_Status\_Divorced 2235 non-null float64

33 Marital\_Status\_Married 2235 non-null float64

34 Marital\_Status\_Single 2235 non-null float64

35 Marital\_Status\_Together 2235 non-null float64

36 Marital\_Status\_Widow 2235 non-null float64

37 Marital\_Status\_YOLO 2235 non-null float64

38 Country\_AUS 2235 non-null float64

39 Country\_CA 2235 non-null float64

40 Country\_GER 2235 non-null float64

41 Country\_IND 2235 non-null float64

42 Country\_ME 2235 non-null float64

43 Country\_SA 2235 non-null float64

44 Country\_SP 2235 non-null float64

45 Country\_US 2235 non-null float64

dtypes: datetime64[ns](1), float64(18), int64(27)

memory usage: 820.7 KB

None

# 2. Are older individuals less likely to prefer online shopping?

Z-statistic: -1.015336371046151

P-value: 0.8450272437194916

# 3. Do customers with children prefer online shopping due to time constraints?

Z-statistic: -0.12916411919703996

P-value: 0.5513861064675847

# 4. Is there cannibalization between physical stores and online channels?

Z-statistic: 18.850084158703154

P-value: 1.000000

# 5. Does the United States significantly outperform other countries in purchases?

Z-statistic: 1.4399

P-value: 0.074955

No statistically significant difference (p ≥ 0.05)