**Capstone Project (Products Segmentation)**

**Questions:**

We have products be able to predict:

1. Where are the optimal locations to sell our products?
2. When is the best time to sell our products?
3. At what price point should we sell our products?
4. Who is the target customer base for our products?
5. What type of promotions would be most effective for our products, and when should these be implemented?
6. What are the key product attributes (quality, size, weight, etc.) that affect its sales performance?
7. Which sales representative is best suited to sell each of our products?

**The dataset wireframe info:**

Int64Index: 117329 entries, 0 to 117328

Data columns (total 38 columns):

# Column Non-Null Count Dtype

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0 order\_id 117329 non-null object

1 order\_item\_id 117329 non-null int64

2 product\_id 117329 non-null object

3 seller\_id 117329 non-null object

4 shipping\_limit\_date 117329 non-null object

5 price 117329 non-null float64

6 freight\_value 117329 non-null float64

7 payment\_sequential 117329 non-null int64

8 payment\_type 117329 non-null object

9 payment\_installments 117329 non-null int64

10 payment\_value 117329 non-null float64

11 customer\_id 117329 non-null object

12 order\_status 117329 non-null object

13 order\_purchase\_timestamp 117329 non-null object

14 order\_approved\_at 117314 non-null object

15 order\_delivered\_carrier\_date 116094 non-null object

16 order\_delivered\_customer\_date 114858 non-null object

17 order\_estimated\_delivery\_date 117329 non-null object

18 review\_id 117329 non-null object

19 review\_score 117329 non-null int64

20 review\_comment\_title 13892 non-null object

21 review\_comment\_message 49679 non-null object

22 review\_creation\_date 117329 non-null object

23 review\_answer\_timestamp 117329 non-null object

24 postal\_code 117329 non-null int64

25 city 117329 non-null object

26 state 117329 non-null object

27 product\_category\_name 115634 non-null object

28 product\_name\_lenght 115634 non-null float64

29 product\_description\_lenght 115634 non-null float64

30 product\_photos\_qty 115634 non-null float64

31 product\_weight\_g 117309 non-null float64

32 product\_length\_cm 117309 non-null float64

33 product\_height\_cm 117309 non-null float64

34 product\_width\_cm 117309 non-null float64

35 seller\_zip\_code\_prefix 117329 non-null int64

36 seller\_city 117329 non-null object

37 seller\_state 117329 non-null object

dtypes: float64(10), int64(6), object(22)

memory usage: 34.9+ MB