Week 7 - Data Analyst: Cross-selling recommendation

Team Member Details: Individual project (no team)

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Problem Statement:

A credit union in Latin America is successfully selling various banking products, such as credit cards, deposit accounts, retirement accounts, and safe deposit boxes. However, their existing customers are typically only purchasing one product, indicating a weak cross-selling performance. As a result, the credit union is struggling to sell additional products to its current customers. ABC Company has created a framework based on a machine learning algorithm to enhance cross-selling efforts. However, as data analysts, we need to analyze the data and propose strategies that the credit union can implement to improve cross-selling without relying on machine learning.

Business understanding:

The presented problem statement indicates that XYZ Bank excels in the initial acquisition of products; however, it exhibits deficiencies in customer retention and the diversification of services.
Cross-selling refers to the practice of proposing complementary or related products to existing clientele.

For instance:

- A customer who possesses a checking account may be offered a credit card or a retirement savings plan.
- A customer with a home loan could find value in the opportunity to acquire a safe deposit box or an insurance product.

Cross-sell vs Upsell		
	Definition	Usecase
Cross-sell	Selling additional products to customers	Someone has a checking account → offers a credit card
Upsell	Selling a higher-ed or upgraded version of a product	Customer has a basic savings account → suggest a premium account with benefits

➔ In this case, it's primarily a Cross-Selling problem.

Project lifecycle with deliverable dates:

Week 7 - Requirement Understanding/Business understanding, Project plan	20 April 2025
Week 8 deliverables - Data analysis	26 April 2025
Week 9 deliverables - Data cleaning and Data processing	02 May 2025
Week 10 deliverables - EDA, Recommendations from EDA	09 May 2025
Week 11 deliverables - EDA presentation	16 May 2025
Week 12 deliverables - Project dashboard presentation	23 May 2025
Week 13 deliverables - Final project report	30 May 2025

Data intake report:

Data Set Link

Tabular data details:

Train.csv

Total number of observations	# of rows: 13647309
Total number of files	# of files: 1
Total number of features	# of columns: 48
Base format of the file	Comma-separated (.csv)
Size of the data	2.13 MB

Test.csv

Total number of observations	# of rows: 929615
Total number of files	# of files: 1
Total number of features	# of columns: 25
Base format of the file	Comma-separated (.csv)
Size of the data	105 MB