Predicting Customer Churn in the Banking Industry

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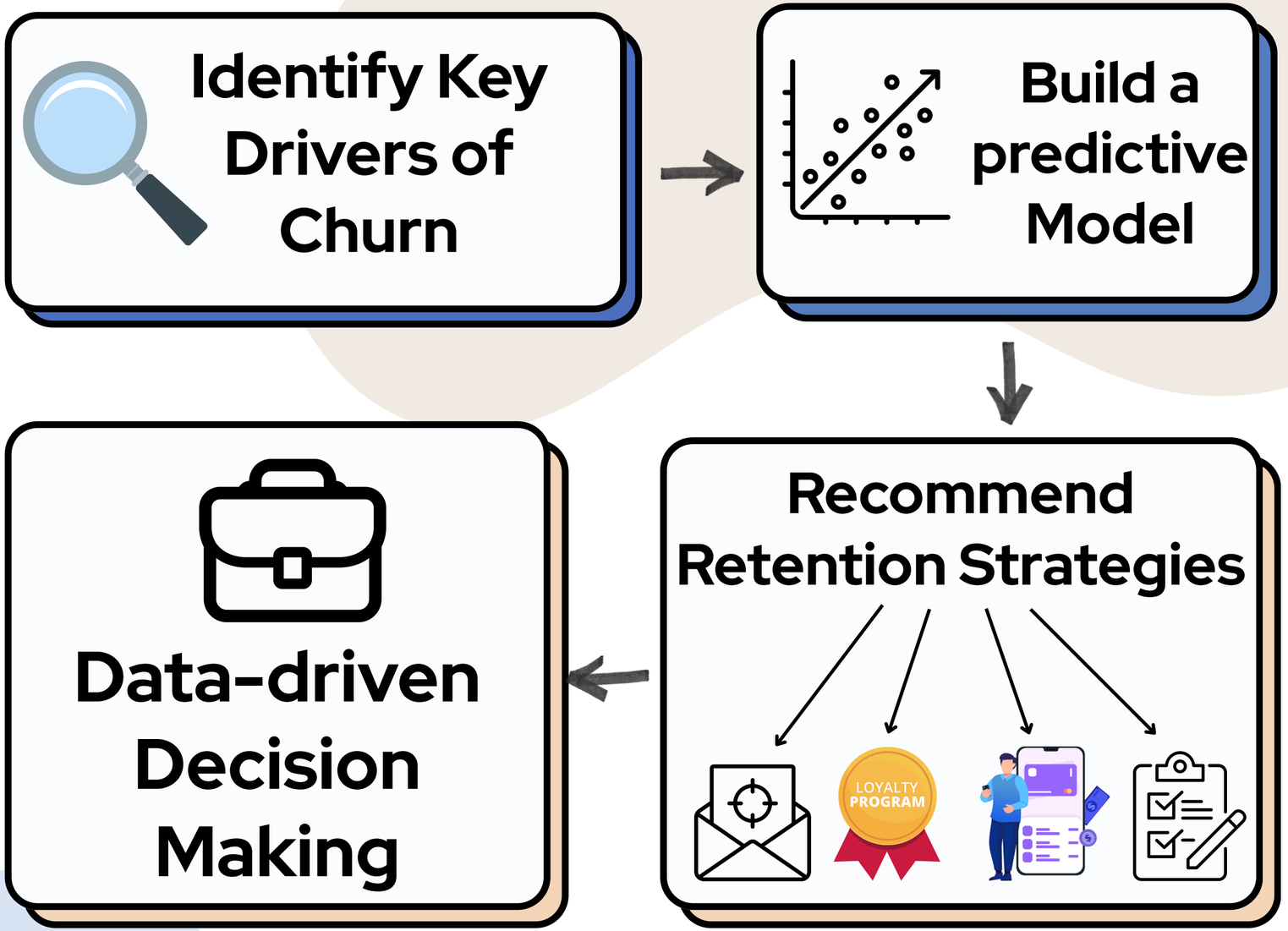
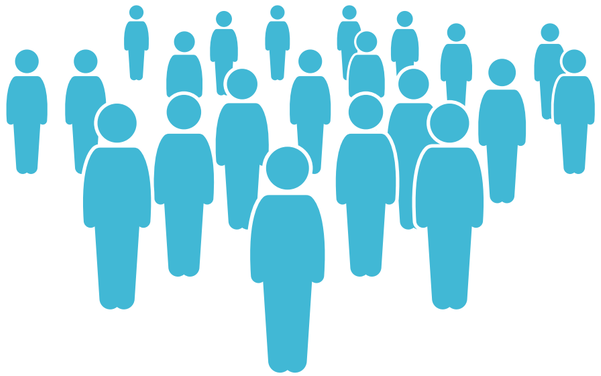
Introduction & objectives

Identifying why customers churn and devising data-driven ways for retention.

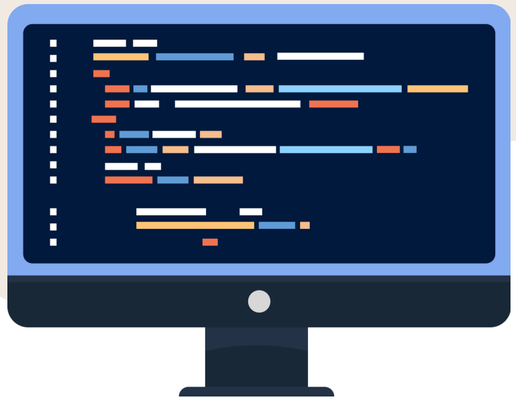


Methodology



Dataset

- 10,000 rows
- 12 columns
- Kaggle

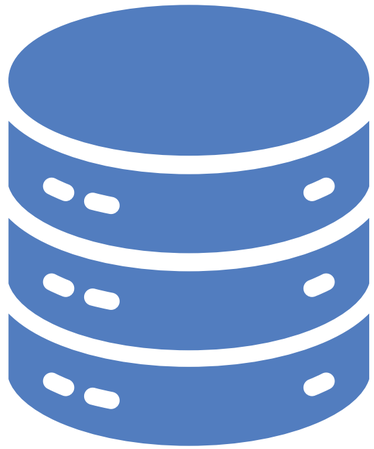


Tools and Libraries

Python

- Pandas
- Matplotlib
- SKLearn

Logistic Regression Model



Model Evaluation

- Confusion matrix
- Accuracy

1

🔍Explore Data

Load customer info and explore

2

⚙️Transform & Encode

Clean and encode key features

3

🏋️Train Model

Standardize and split data

4

📝Model evaluation

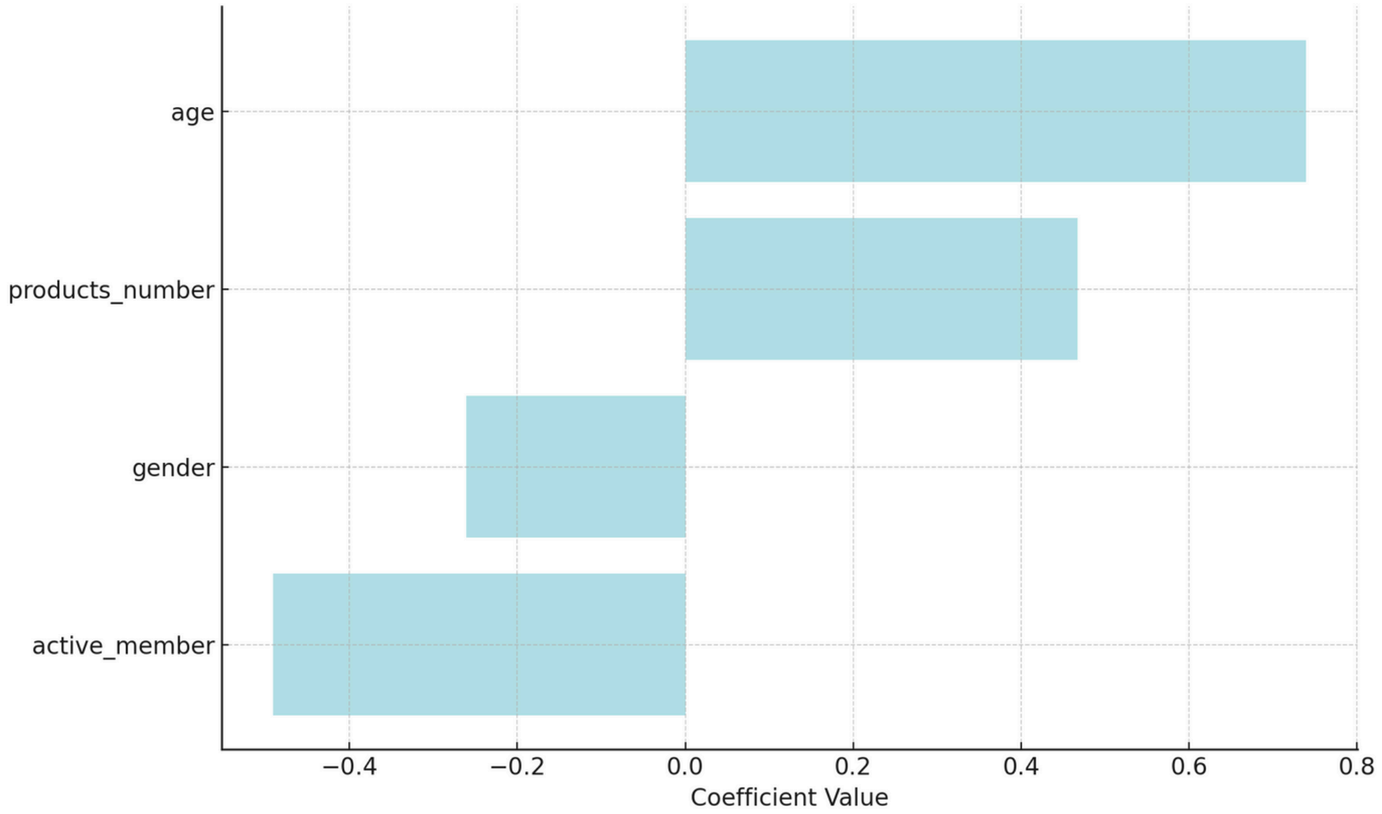
Accuracy and Precision

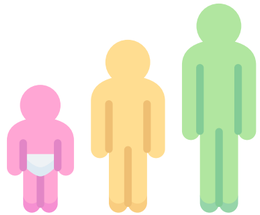
5

👨‍💼Business Impact

Predict churn and tailor retention strategies

Analysis & Interpretation

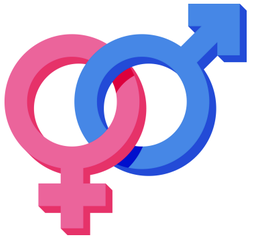




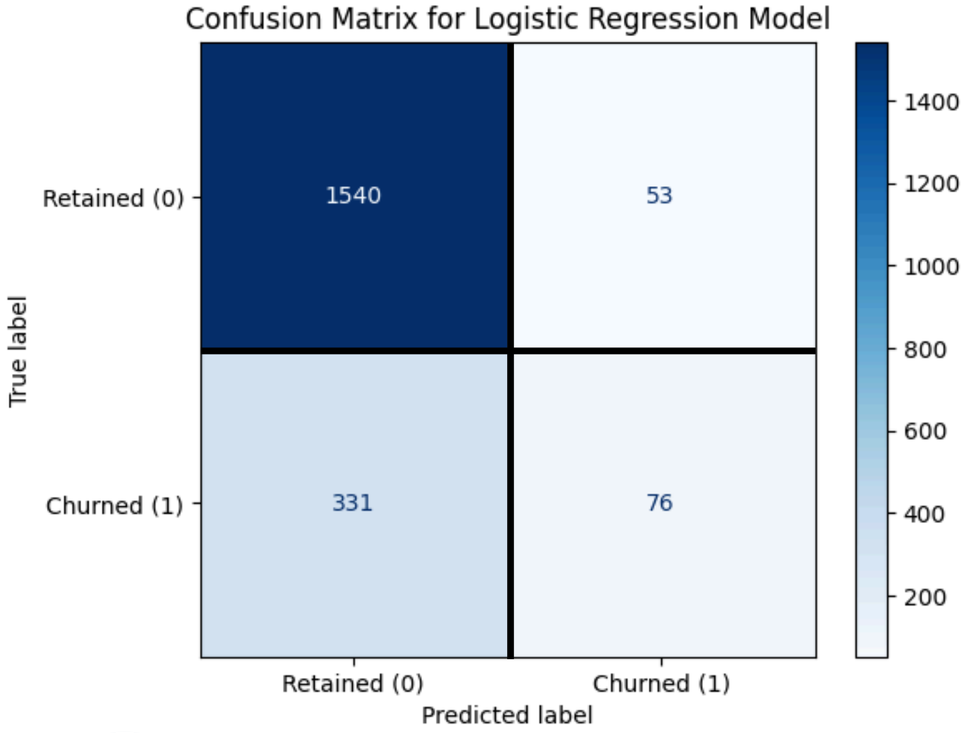
Age
+0.7388

Active Member
-0.4907

Products Number
+0.4668

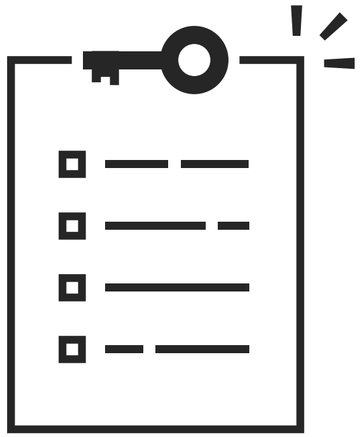


Gender
-0.2609



Accuracy score = 80.8%

Precision score = 58.9%

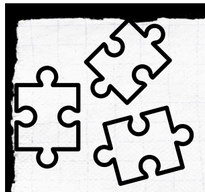


- **Strong overall performance.**
- **Moderate precision with some false positives**

- **👴 Older users = higher churn**
- **💬 Active members = lower churn**
- **📦 More products = more likely to leave**

Implications & Recommendations

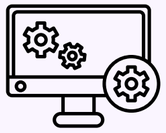
Age-Inclusive Design



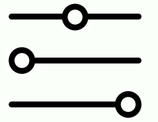
Seamless Product Integration

Re-engage Inactive Users

Limitations Of Project



Basic Model Used



Trade-Off

Data Source

Static Snapshot

THANK YOU!