

Problem Statement

The objective of this case study is to predict whether a customer will purchase a Gold Fund based on their demographic and financial behavior data. By developing a predictive model, we aim to identify the key factors influencing Gold Fund purchases, enabling targeted marketing strategies to increase customer acquisition and retention for financial products.

Data Description

The dataset consists of the following columns:

1. **ID**: Unique identifier for each customer.
2. **Gender**: Gender of the customer (1 for Male, 2 for Female).
3. **AMB**: Average Monthly Balance maintained by the customer.
4. **AccountSince**: Number of months since the customer opened the account.
5. **RelationshipSize**: Number of accounts/relationships the customer holds with the bank.
6. **AvgMonthlyTxn**: Average number of monthly transactions by the customer.
7. **DematAccounts**: Number of Demat accounts held by the customer.
8. **FD_Nos**: Number of Fixed Deposit accounts held by the customer.
9. **MF_nos**: Number of Mutual Fund accounts held by the customer.
10. **Equity_mfs**: Number of Equity Mutual Funds held by the customer.
11. **Debt_mfs**: Number of Debt Mutual Funds held by the customer.
12. **Balanced_Funds**: Number of Balanced Funds held by the customer.
13. **ELSS**: Number of Equity Linked Savings Schemes held by the customer.
14. **PMS_accounts**: Number of Portfolio Management Service accounts held by the customer.
15. **Trading_Accounts**: Number of Trading accounts held by the customer.
16. **Speciality_funds**: Number of Specialty Funds held by the customer.
17. **Gold_Fund**: Target variable indicating whether the customer has purchased a Gold Fund (1 for Yes, 0 for No).