

# Data Pipeline Report

File: churn.csv | Timestamp: 2025-08-23T11:51:13.177421

## 1. Data Validation Summary

Total Rows	100
Total Columns	14
Missing Values Found	0
Duplicate Rows Found	0

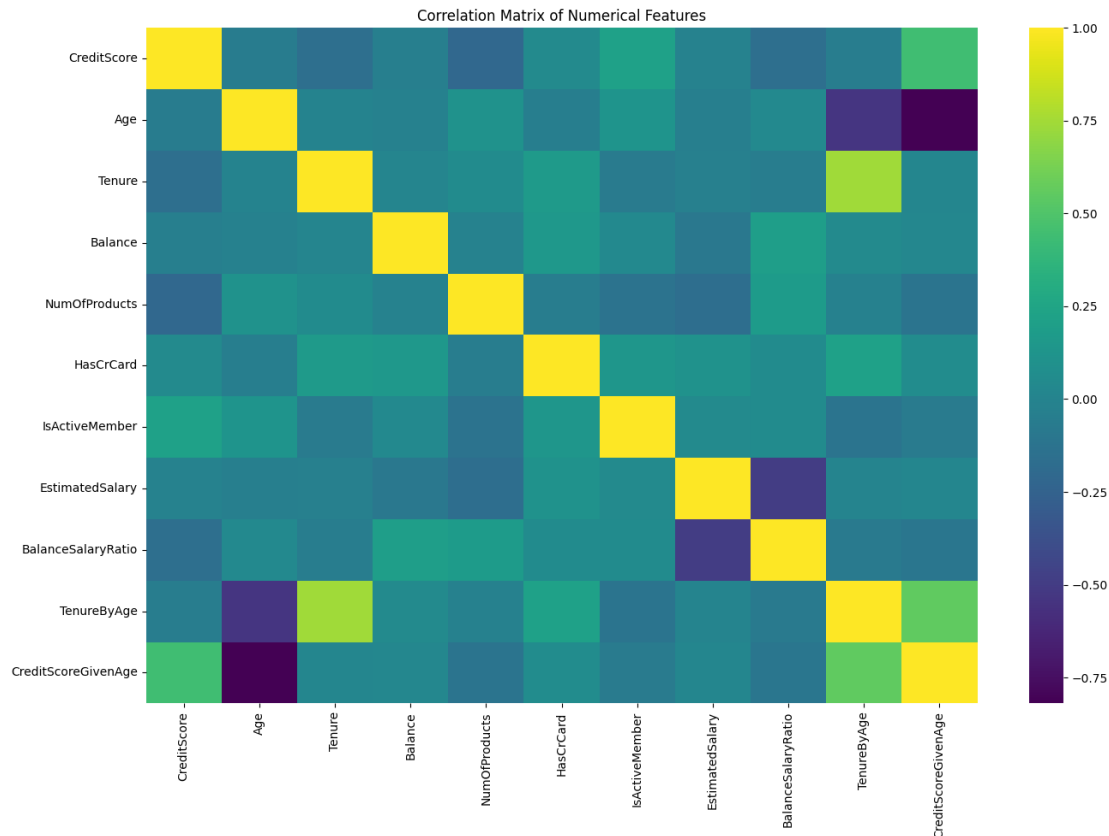
## 2. Feature Engineering Summary

**Columns Dropped:** RowNumber, CustomerId, Surname

**Columns Created:** BalanceSalaryRatio, TenureByAge, CreditScoreGivenAge

## 3. Exploratory Data Analysis

*Correlation Heatmap*



## 4. Final Processed Data

Shape of Final DataFrame: (100, 15)

**Processed DataFrame Head:**

CreditScore	Age	Tenure	Balance	NumOfProducts	HasCrCard	IsActiveMember
0.37	-0.41	-1.24	-0.01	-0.05	0.92	-1.02
0.47	1.22	0.44	-1.18	1.18	-1.08	0.98
-1.01	0.8	-0.57	-1.25	1.18	-1.08	-1.02
-1.15	0.52	-0.91	0.73	-0.05	-1.08	0.98
-0.95	-0.65	-1.58	-0.05	-0.05	0.92	-1.02