Churn Modelling
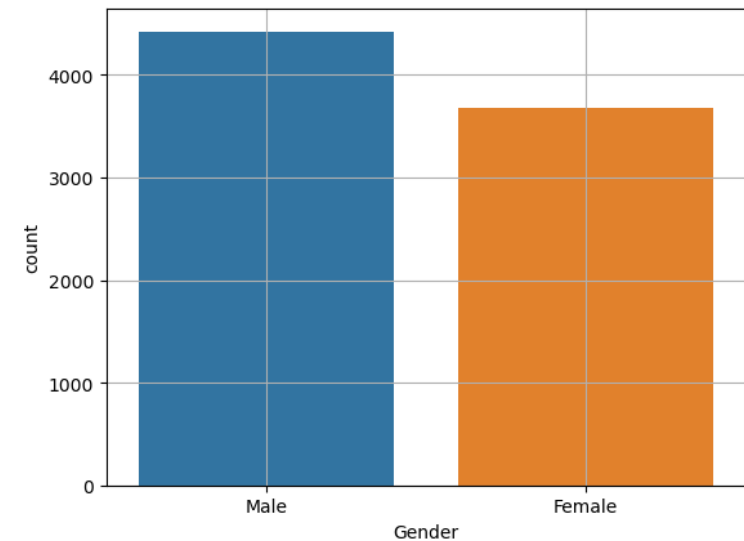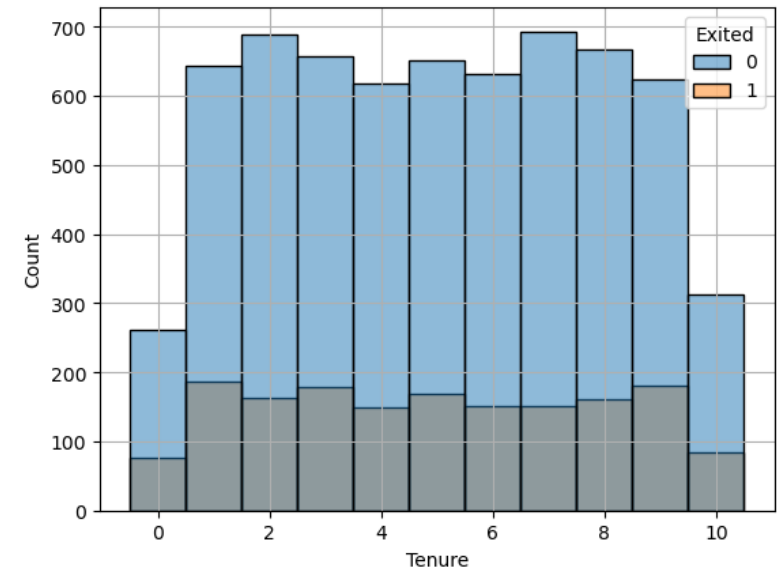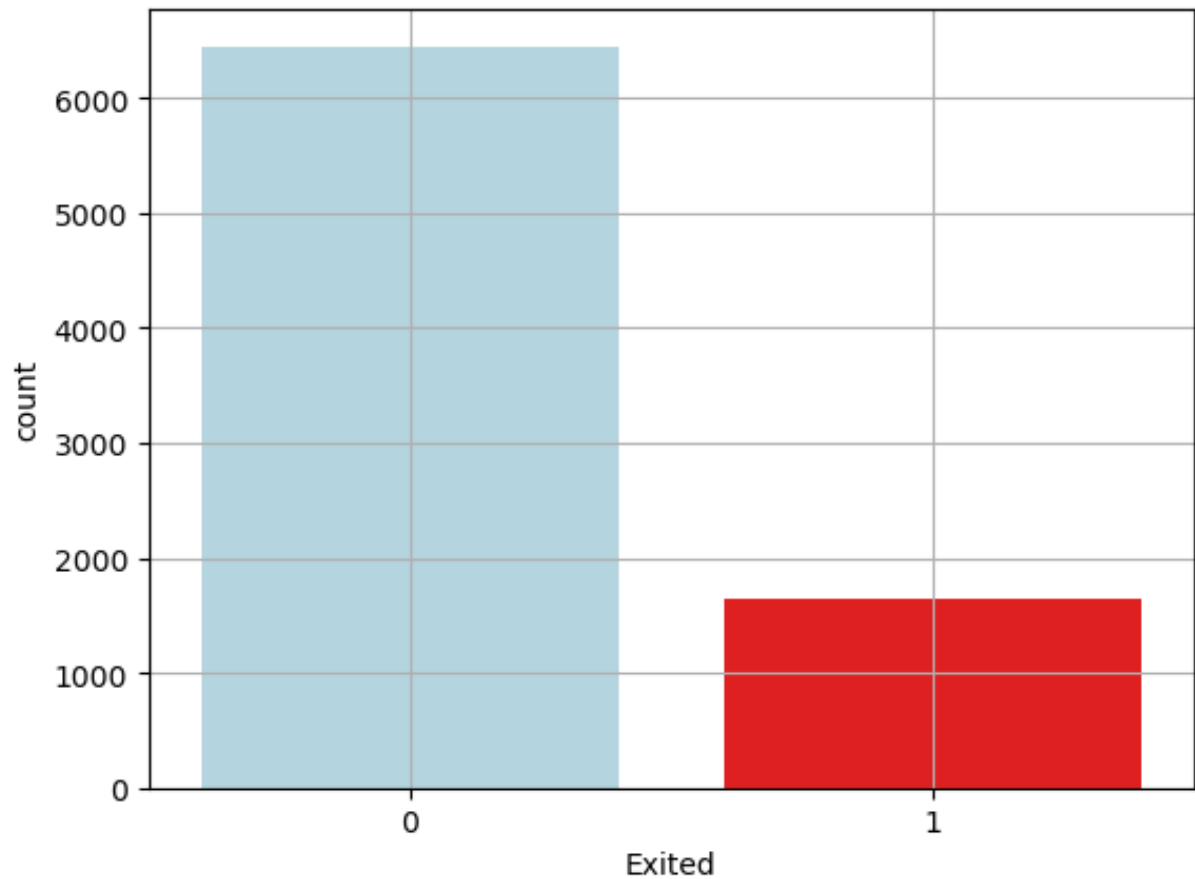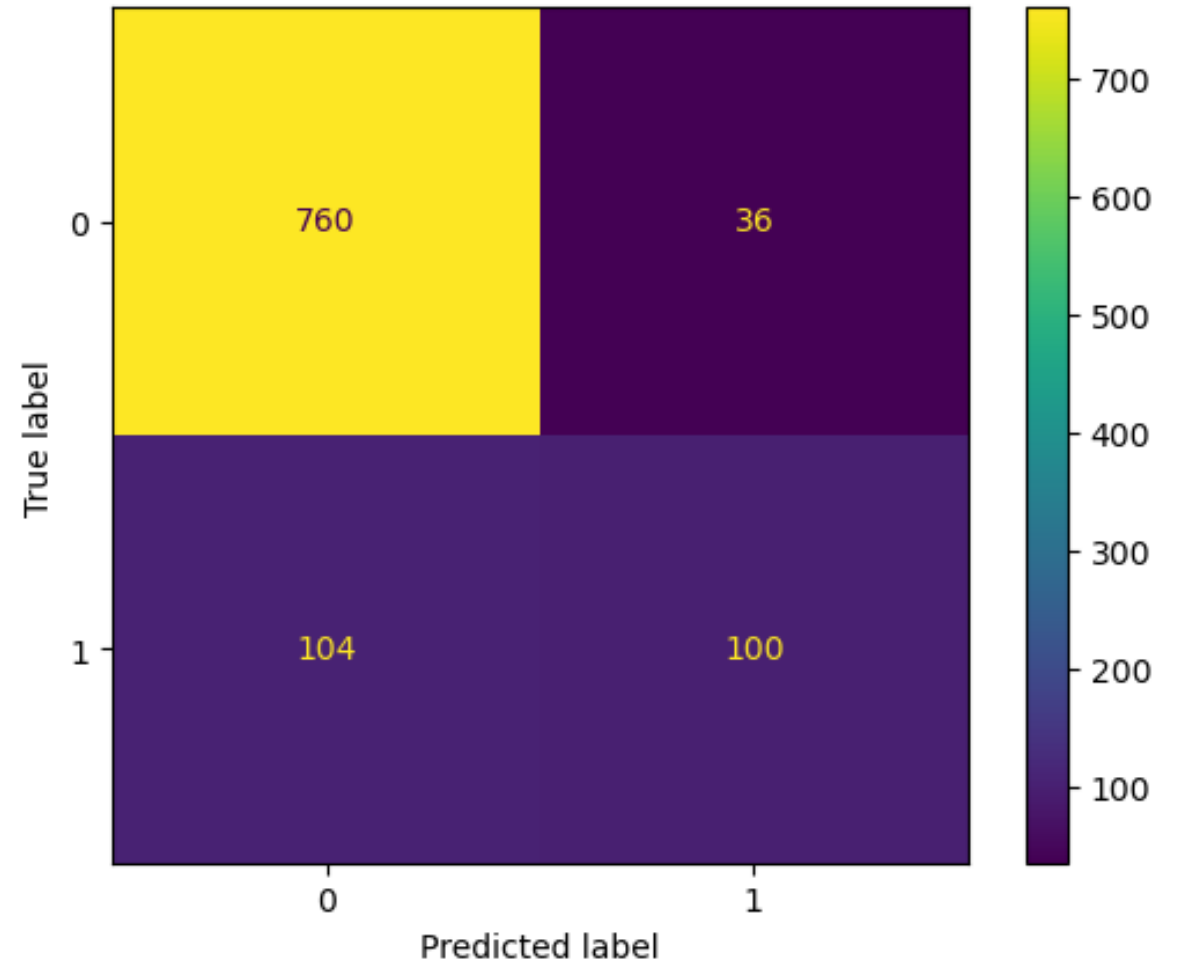
Rodrigo Rezende

CUSTOMER CHURN
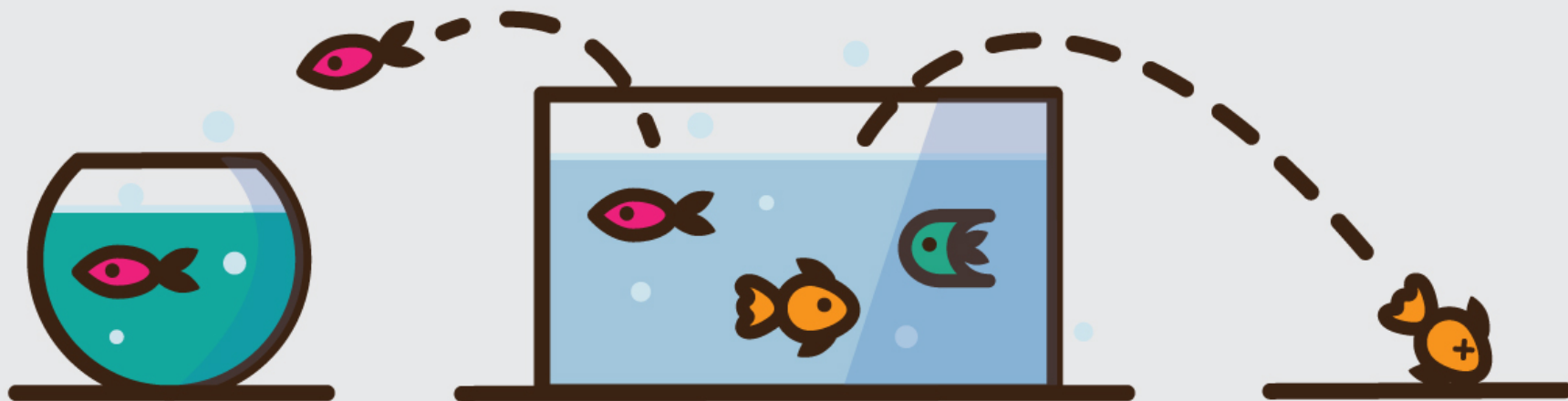
Exploratory Data Analysis:

Models:

- Logistic Regression
- Support Vector Classifier (SVC)
- K-Nearest Neighbors (KNN) Classifier
- Decision Tree Classifier
- Random Forest Classifier
- Light Gradient Boosting Machine (LGBM) Classifier
- Neural Network

Confusion Matrix:

Factors leading to a higher chance of churn:
• Advanced age;
• Large account balance.

Marketing planning:
• Temporary reduction in interest rates;
• Savings account with a higher interest rate;
• Premium credit card with more benefits.

Communication methods:
• Regular check-ins;
• Customer feedback.

	CustomerId	Surname	Gender	Age	Balance	score
6172	15656822	Day	Male	43	87612.64	0.993565
5010	15719508	Davis	Male	49	121205.15	0.987543
7008	15638610	Kennedy	Female	65	117325.54	0.965112
880	15585362	Simmons	Female	60	0.00	0.958052
7435	15647898	Russell	Female	50	130554.51	0.954631
4732	15653937	McIntyre	Female	53	123916.67	0.953772
9255	15622033	Rapuluchukwu	Female	41	101543.51	0.952905
3130	15813113	Chang	Female	56	0.00	0.950276
5833	15624519	Calabrese	Female	49	97092.87	0.940754
1701	15605279	Francis	Male	50	0.00	0.938746

Credits:

- Image of Slide 1: https://latribune.lazardfreresgestion.fr/en/analysis-silicon-valley-bank/

- Image of Slide 2: https://growrevenue.io/churn-rate-benchmarks/

- Image of Slide 5: https://www.questback.com/guides/a-complete-guide-to-churn/