**Data Dictionary**

Dataset #1 (cleaned): Churn\_Modelling.csv

Original source from Kaggle: <https://www.kaggle.com/shrutimechlearn/churn-modelling>

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| --- | --- | --- | --- |
| **Variable Name** | **Description** | **Data Type** | **Variable Type** |
| RowNumber | Row numbers from 1 to 10,000 | Numeric | Categorical |
| CustomerId | Unique Customer ID generated by the bank to identify clients | Numeric | Categorical |
| Surname | Client’s last name | Character | Categorial |
| CreditScore | Client’s credit score with the bank | Numeric | Continuous |
| Geography | Identifies the country which the client holds an investment in | Character | Categorical |
| Gender | Gender of Client | Character | Categorical |
| Age | Client’s age in completed years | Integer | Continuous |
| Tenure | Number of years the client has been with the bank | Integer | Continuous |
| Balance | Current bank balance of clients. For clients who have exited, the amount reflected relates to the last balance before exit. | Integer | Continuous |
| NumOfProducts | Number of products which the client is currently using | Integer | Continuous |
| HasCrCard | Indicates whether a customer holds a credit card with the bank.  1: Has Credit Card  0: No Credit Card | Logical | Categorical |
| IsActiveMember | Indicates whether the client is an active member with the financial institution (i.e. if they actively engage with other departments such as insurance, bonds etc)  1: Active Member  0: Not Active Member | Logical | Categorial |
| EstimatedSalary | Estimated annual salary, in absolute value, of the client  in dollars. | Integer | Continuous |
| Exited | Indicates whether a client has closed their account with       the financial institution.  1: Account Closed  0: Account not Closed | Logical | Categorical |

Dataset #2 (cleaned): Bank\_Personal\_Loan\_Modelling.csv

Original source from Kaggle: <https://www.kaggle.com/itsmesunil/bank-loan-modelling>

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| --- | --- | --- | --- |
| **Variable Name** | **Description** | **Data Type** | **Variable Type** |
| ID | Customer ID | Numeric | Categorical |
| Age | Client’s age in completed years | Integer | Continuous |
| Experience | Number of years of professional experience | Integer | Continuous |
| Income | Annual income of clients in dollars, in  thousands. | Integer | Categorical |
| ZIPCode | Home Address ZIP code. | Numeric | Categorical |
| Family | Number of family members of the client | Numeric | Continuous |
| CCAvg | Average spending on credit cards per month, in thousands | Integer | Continuous |
| Education | Education Level of Client.  1: Undergrad; 2: Graduate;  3: Advanced/Professional | Numeric | Categorical |
| Mortgage | Value of house mortgage, if any, in thousands | Integer | Continuous |
| Personal Loan | Did this customer accept the personal loan offered in the last campaign?  1: Personal Loan accepted  0: Personal Loan not accepted | Logical | Categorical |
| Securities Account | Does the customer have a securities account with the bank?  1: Has Securities Account  0: No Securities Account | Logical | Categorical |
| CD Account | Does the customer have a certificate of deposit (CD) account with the bank?  1: Has CD account  0: No CD account | Logical | Categorical |
| Online | Does the customer use internet banking facilities?  1: Uses internet banking  0: Does not use internet banking | Logical | Categorical |
| CreditCard | Does the customer use a credit card issued by UniversalBank?  1: Uses credit card  0: Does not use credit card | Logical | Categorical |