

Assignment 3 – Pandas

Problem Statement:

You work in XYZ Corporation as a Data Analyst. Your corporation has told you to analyze the customer\_churn dataset with various functions.

Tasks To Be Performed:

- 1. Display the top 100 records from the original data frame.
- 2. Display the last 10 records from the data frame.
- 3. Display the last record from the data frame.

In [2]:

import pandas as pd

In [3]:

df = pd.read\_csv(r'csv files/customer\_churn-1.csv')  
df

Out[3]:

	customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity	...	DeviceProtection	TechSupport	StreamingTV	StreamingMovies	Contract	PaperlessBilling	PaymentMethod	MonthlyCharges	TotalCharges	Churn
0	7590-VHVEG	Female	0	Yes	No	1	No	No phone service	DSL	No	...	No	No	No	No	Month-to-month	Yes	Electronic check	29.85	29.85	No
1	5575-GNVDE	Male	0	No	No	34	Yes	No	DSL	Yes	...	Yes	No	No	No	One year	No	Mailed check	56.95	1889.5	No
2	3668-QPYBK	Male	0	No	No	2	Yes	No	DSL	Yes	...	No	No	No	No	Month-to-month	Yes	Mailed check	53.85	108.15	Yes
3	7795-CFOCW	Male	0	No	No	45	No	No phone service	DSL	Yes	...	Yes	Yes	No	No	One year	No	Bank transfer (automatic)	42.30	1840.75	No
4	9237-HQITU	Female	0	No	No	2	Yes	No	Fiber optic	No	...	No	No	No	No	Month-to-month	Yes	Electronic check	70.70	151.65	Yes
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7038	6840-RESVB	Male	0	Yes	Yes	24	Yes	Yes	DSL	Yes	...	Yes	Yes	Yes	Yes	One year	Yes	Mailed check	84.80	1990.5	No
7039	2234-XADUH	Female	0	Yes	Yes	72	Yes	Yes	Fiber optic	No	...	Yes	No	Yes	Yes	One year	Yes	Credit card (automatic)	103.20	7362.9	No
7040	4801-JZAZL	Female	0	Yes	Yes	11	No	No phone service	DSL	Yes	...	No	No	No	No	Month-to-month	Yes	Electronic check	29.60	346.45	No
7041	8361-LTMKD	Male	1	Yes	No	4	Yes	Yes	Fiber optic	No	...	No	No	No	No	Month-to-month	Yes	Mailed check	74.40	306.6	Yes
7042	3186-AJIEK	Male	0	No	No	66	Yes	No	Fiber optic	Yes	...	Yes	Yes	Yes	Yes	Two year	Yes	Bank transfer (automatic)	105.65	6844.5	No

7043 rows × 21 columns

In [4]:

#Display the top 100 records from the original data frame.  
df.head(100)

Out[4]:

	customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity	...	DeviceProtection	TechSupport	StreamingTV	StreamingMovies	Contract	PaperlessBilling	PaymentMethod	MonthlyCharges	TotalCharges	Churn
0	7590-VHVEG	Female	0	Yes	No	1	No	No phone service	DSL	No	...	No	No	No	No	Month-to-month	Yes	Electronic check	29.85	29.85	No
1	5575-GNVDE	Male	0	No	No	34	Yes	No	DSL	Yes	...	Yes	No	No	No	One year	No	Mailed check	56.95	1889.5	No
2	3668-QPYBK	Male	0	No	No	2	Yes	No	DSL	Yes	...	No	No	No	No	Month-to-month	Yes	Mailed check	53.85	108.15	Yes
3	7795-CFOCW	Male	0	No	No	45	No	No phone service	DSL	Yes	...	Yes	Yes	No	No	One year	No	Bank transfer (automatic)	42.30	1840.75	No
4	9237-HQITU	Female	0	No	No	2	Yes	No	Fiber optic	No	...	No	No	No	No	Month-to-month	Yes	Electronic check	70.70	151.65	Yes
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
95	8637-XJIVR	Female	0	No	No	12	Yes	Yes	Fiber optic	Yes	...	No	No	No	No	Month-to-month	Yes	Electronic check	78.95	927.35	Yes
96	9803-FTJCG	Male	0	Yes	Yes	71	Yes	Yes	DSL	Yes	...	No	Yes	No	No	One year	Yes	Credit card (automatic)	66.85	4748.7	No
97	0278-YXOOG	Male	0	No	No	5	Yes	No	No	No internet service	...	No internet service	No internet service	No internet service	No internet service	Month-to-month	No	Mailed check	21.05	113.85	Yes
98	3212-KXOCR	Male	0	No	No	52	Yes	No	No	No internet service	...	No internet service	No internet service	No internet service	No internet service	Two year	No	Bank transfer (automatic)	21.00	1107.2	No
99	4598-XLKNJ	Female	1	Yes	No	25	Yes	No	Fiber optic	No	...	Yes	No	Yes	Yes	Month-to-month	Yes	Electronic check	98.50	2514.5	Yes

100 rows × 21 columns

In [6]:

# Display the last 10 records from the data frame  
df.tail(10)

Out[6]:

	customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity	...	DeviceProtection	TechSupport	StreamingTV	StreamingMovies	Contract	PaperlessBilling	PaymentMethod	MonthlyCharges	TotalCharges	Churn
7033	9767-FFLEM	Male	0	No	No	38	Yes	No	Fiber optic	No	...	No	No	No	No	Month-to-month	Yes	Credit card (automatic)	69.50	2625.25	No
7034	0639-TSIQW	Female	0	No	No	67	Yes	Yes	Fiber optic	Yes	...	Yes	No	Yes	No	Month-to-month	Yes	Credit card (automatic)	102.95	6886.25	Yes
7035	8456-QDAVC	Male	0	No	No	19	Yes	No	Fiber optic	No	...	No	No	Yes	No	Month-to-month	Yes	Bank transfer (automatic)	78.70	1495.1	No
7036	7750-EYXWZ	Female	0	No	No	12	No	No phone service	DSL	No	...	Yes	Yes	Yes	Yes	One year	No	Electronic check	60.65	743.3	No
7037	2569-WGERO	Female	0	No	No	72	Yes	No	No	No internet service	...	No internet service	No internet service	No internet service	No internet service	Two year	Yes	Bank transfer (automatic)	21.15	1419.4	No
7038	6840-RESVB	Male	0	Yes	Yes	24	Yes	Yes	DSL	Yes	...	Yes	Yes	Yes	Yes	One year	Yes	Mailed check	84.80	1990.5	No
7039	2234-XADUH	Female	0	Yes	Yes	72	Yes	Yes	Fiber optic	No	...	Yes	No	Yes	Yes	One year	Yes	Credit card (automatic)	103.20	7362.9	No
7040	4801-JZAZL	Female	0	Yes	Yes	11	No	No phone service	DSL	Yes	...	No	No	No	No	Month-to-month	Yes	Electronic check	29.60	346.45	No
7041	8361-LTMKD	Male	1	Yes	No	4	Yes	Yes	Fiber optic	No	...	No	No	No	No	Month-to-month	Yes	Mailed check	74.40	306.6	Yes
7042	3186-AJIEK	Male	0	No	No	66	Yes	No	Fiber optic	Yes	...	Yes	Yes	Yes	Yes	Two year	Yes	Bank transfer (automatic)	105.65	6844.5	No

10 rows × 21 columns

In [7]:

# Display the last record from the data frame.  
df.tail(1)

Out[7]:

	customerID	gender	SeniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity	...	DeviceProtection	TechSupport	StreamingTV	StreamingMovies	Contract	PaperlessBilling	PaymentMethod	MonthlyCharges	TotalCharges	Churn
7042	3186-AJIEK	Male	0	No	No	66	Yes	No	Fiber optic	Yes	...	Yes	Yes	Yes	Yes	Two year	Yes	Bank transfer (automatic)	105.65	6844.5	No

1 rows × 21 columns

In [ ]: