## Assignment 2 – 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. Now select the rows from 20th index till 200th index (exclusive) and columns from 2nd index till 15th index value.

In [1]: **import** pandas **as** pd

In [2]: df = pd.read\_csv(r'csv files/customer\_churn-1.csv')
df

Out[2]:

Churn	otalCharges	MonthlyCharges To	PaymentMethod	PaperlessBilling	Contract	treaming <b>M</b> ovies	StreamingTV S	TechSupport	DeviceProtection	OnlineSecurity .	InternetService	MultipleLines	PhoneService	s tenure	Dependents	Partner	SeniorCitizen	gender	customerID	:
No	29.85	29.85	Electronic check	Yes	Month-to-month	No	No	No	No	No .	DSL	No phone service	No	o 1	No	Yes	0	Female	7590-VHVEG	0
No	1889.5	56.95	Mailed check	No	One year	No	No	No	Yes	Yes .	DSL	No	Yes	34	No	No	0	Male	5575-GNVDE	1
Yes	108.15	53.85	Mailed check	Yes	Month-to-month	No	No	No	No	Yes .	DSL	No	Yes	2	No	No	0	Male	3668-QPYBK	2
No	1840.75	42.30	Bank transfer (automatic)	No	One year	No	No	Yes	Yes	Yes .	DSL	No phone service	No	45	No	No	0	Male	7795-CFOCW	3
Yes	151.65	70.70	Electronic check	Yes	Month-to-month	No	No	No	No	No .	Fiber optic	No	Yes	2	No	No	0	Female	9237-HQITU	4
No	1990.5	84.80	Mailed check	Yes	One year	Yes	Yes	Yes	Yes	Yes .	DSL	Yes	Yes	s 24	Yes	Yes	0	Male	6840-RESVB	7038
No	7362.9	103.20	Credit card (automatic)	Yes	One year	Yes	Yes	No	Yes	No .	Fiber optic	Yes	Yes	s 72	Yes	Yes	0	Female	2234-XADUH	7039
No	346.45	29.60	Electronic check	Yes	Month-to-month	No	No	No	No	Yes .	DSL	No phone service	No	s 11	Yes	Yes	0	Female	4801-JZAZL	7040
Yes	306.6	74.40	Mailed check	Yes	Month-to-month	No	No	No	No	No .	Fiber optic	Yes	Yes	o 4	No	Yes	1	Male	8361-LTMKD	7041
No	6844.5	105.65	Bank transfer (automatic)	Yes	Two year	Yes	Yes	Yes	Yes	Yes .	Fiber optic	No	Yes	5 66	No	No	0	Male	3186-AJIEK	7042

7043 rows × 21 columns

In [4]: df.iloc[20:200,2:16]

Out[4]: SeniorCitizen Par

]:	Se	eniorCitizen	Partner	Dependents	tenure	PhoneService	MultipleLines	InternetService	OnlineSecurity	OnlineBackup	DeviceProtection	TechSupport	StreamingTV	StreamingMovies	Contract
	20	1	No	No	1	No	No phone service	DSL	No	No	Yes	No	No	Yes	Month-to-month
	21	0	Yes	No	12	Yes	No	No	No internet service	One year					
	22	0	No	No	1	Yes	No	No	No internet service	Month-to-month					
	23	0	Yes	No	58	Yes	Yes	DSL	No	Yes	No	Yes	No	No	Two year
	24	0	Yes	Yes	49	Yes	No	DSL	Yes	Yes	No	Yes	No	No	Month-to-month
1	95	0	Yes	No	20	Yes	No	Fiber optic	Yes	Yes	No	Yes	Yes	No	Month-to-month
1	96	0	Yes	Yes	24	Yes	Yes	No	No internet service	Two year					
1	97	0	No	No	59	Yes	Yes	Fiber optic	No	Yes	Yes	Yes	Yes	Yes	Month-to-month
•	98	0	Yes	Yes	72	Yes	Yes	Fiber optic	No	Yes	Yes	Yes	Yes	Yes	Two year
1	99	0	No	Yes	1	Yes	No	No	No internet service	Month-to-month					

180 rows × 14 columns