## **Data Manipulation**

```
#Exp no.: 2
In [1]:
In [2]:
         #Aim: Data Manipulation
         #Name: Swapnil Rahul Wankhade
In [3]:
         #Roll no.: 73
         #Sec: B
         #Subject: Data Science and Statistics (Lab 1)
In [4]:
         import pandas as pd
In [5]:
         import os
In [6]: os.getcwd()
Out[6]: 'C:\\Users\\hp\\Downloads'
In [7]: os.chdir('C:\\Users\\hp\\Desktop')
         data=pd.read_csv('diabetes.csv')
In [8]:
In [9]:
         data.head(10)
Out[9]:
             Pregnancies Glucose BloodPressure SkinThickness Insulin BMI DiabetesPedigreeFunction
          0
                                                                                            0.627
                      6
                             148
                                            72
                                                          35
                                                                  0 33.6
          1
                      1
                              85
                                            66
                                                          29
                                                                  0 26.6
                                                                                            0.351
          2
                      8
                             183
                                            64
                                                           0
                                                                  0 23.3
                                                                                            0.672
          3
                              89
                                            66
                                                          23
                                                                 94 28.1
                                                                                            0.167
                      1
                                                                                            2.288
                      0
                             137
                                            40
                                                          35
                                                                 168 43.1
          5
                      5
                             116
                                            74
                                                           0
                                                                  0 25.6
                                                                                            0.201
                      3
                              78
                                                                                            0.248
                                            50
                                                          32
                                                                 88 31.0
          6
          7
                     10
                             115
                                             0
                                                           0
                                                                  0 35.3
                                                                                            0.134
                      2
                                            70
                                                          45
          8
                             197
                                                                 543 30.5
                                                                                            0.158
                      8
                                            96
                                                                     0.0
                                                                                            0.232
                             125
                                                                  0
```

]:	Pregnancie	s Glucose	BloodPressure	SkinThickness	Insulin	вмі	DiabetesPedigreeFunctic	
76	<b>3</b> 1	0 101	76	48	180	32.9	0.17	
76	<b>34</b>	2 122	70	27	0	36.8	0.34	
76	55	5 121	72	23	112	26.2	0.24	
76	66	1 126	60	0	0	30.1	0.34	
76	57	1 93	70	31	0	30.4	0.31	
4							<b>•</b>	
da	ta.shape							
(7	58, 9)							
da	ta.size							
: 69	12							
: da	ta.ndim							
2								
: da	ta.columns							
	dex(['Pregna	'Diabete	'Glucose', 'B sPedigreeFunc				kness', 'Insulin',	
In	dex(['Pregna 'BMI',	'Diabete						
: In	dex(['Pregna 'BMI', dtype='a	'Diabete bject')		tion', 'Age',	'Outc	ome']		
: In	dex(['Pregna 'BMI', dtype='d	'Diabete bject')	sPedigreeFunc <sup>.</sup>	tion', 'Age',	'Outc	ome']	,	
: In	dex(['Pregna 'BMI', dtype='d ta.head() Pregnancies	'Diabete bject')	sPedigreeFunc	tion', 'Age',	'Outc	оме'] <b>ЗМІ с</b> 33.6	DiabetesPedigreeFunction	
da <sup>-</sup>	dex(['Pregna', BMI', dtype='dta.head()  Pregnancies 6	'Diabete bbject')  Glucose  148	sPedigreeFunc BloodPressure S	tion', 'Age', SkinThickness In	'Outc	оме'] <b>ЗМІ с</b> 33.6	DiabetesPedigreeFunction  0.627	
: da <sup>-</sup> :	dex(['Pregna', BMI', dtype='dta.head()  Pregnancies  6 1	'Diabete bbject')  Glucose  148 85	sPedigreeFunc BloodPressure S 72 66	tion', 'Age',  SkinThickness II  35 29	'Outc	33.6 26.6 23.3	DiabetesPedigreeFunction  0.627  0.351	
: Ind	dex(['Pregna', BMI', dtype='dta.head()  Pregnancies 6 1 8	'Diabete bbject')  Glucose  148  85  183	sPedigreeFunct  BloodPressure S  72  66  64	SkinThickness II  35 29	o 3 0 2 0 2	33.6 26.6 23.3	DiabetesPedigreeFunction  0.627  0.351  0.672	

In [16]: data.drop(labels="Age",axis=1)

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	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	ВМІ	DiabetesPedigreeFunction
0	6	148	72	35	0	33.6	0.62
1	1	85	66	29	0	26.6	0.35
2	8	183	64	0	0	23.3	0.67
3	1	89	66	23	94	28.1	0.16
4	0	137	40	35	168	43.1	2.28
763	10	101	76	48	180	32.9	0.17
764	2	122	70	27	0	36.8	0.34
765	5	121	72	23	112	26.2	0.24
766	1	126	60	0	0	30.1	0.34
767	1	93	70	31	0	30.4	0.31

768 rows × 8 columns

In [17]: data.drop(labels=["Age","Glucose"],axis=1)

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	Pregnancies	BloodPressure	SkinThickness	Insulin	ВМІ	DiabetesPedigreeFunction	Outcor
0	6	72	35	0	33.6	0.627	
1	1	66	29	0	26.6	0.351	
2	8	64	0	0	23.3	0.672	
3	1	66	23	94	28.1	0.167	
4	0	40	35	168	43.1	2.288	
763	10	76	48	180	32.9	0.171	
764	2	70	27	0	36.8	0.340	
765	5	72	23	112	26.2	0.245	
766	1	60	0	0	30.1	0.349	
767	1	70	31	0	30.4	0.315	

768 rows × 7 columns

In [18]: data.head(10)

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	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	ВМІ	DiabetesPedigreeFunction
0	6	148	72	35	0	33.6	0.627
1	1	85	66	29	0	26.6	0.351
2	8	183	64	0	0	23.3	0.672
3	1	89	66	23	94	28.1	0.167
4	0	137	40	35	168	43.1	2.288
5	5	116	74	0	0	25.6	0.201
6	3	78	50	32	88	31.0	0.248
7	10	115	0	0	0	35.3	0.134
8	2	197	70	45	543	30.5	0.158
9	8	125	96	0	0	0.0	0.232
4							<b>•</b>

In [19]: data.drop(labels=[2,3],axis=0)

## Out[19]:

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	ВМІ	DiabetesPedigreeFunctic
0	6	148	72	35	0	33.6	0.62
1	1	85	66	29	0	26.6	0.35
4	0	137	40	35	168	43.1	2.28
5	5	116	74	0	0	25.6	0.20
6	3	78	50	32	88	31.0	0.24
763	10	101	76	48	180	32.9	0.17
764	2	122	70	27	0	36.8	0.34
765	5	121	72	23	112	26.2	0.24
766	1	126	60	0	0	30.1	0.34
767	1	93	70	31	0	30.4	0.31

766 rows × 9 columns