## DATA MANUPULATION

```
#Aim : To perform operation of Data Manipulation on Data set.
# Name : Achal Chandure
# Roll no. :08
# Sec : C
# Subject : ET1
#date: 02/08/2024
import pandas as pd
import os
os.getcwd()
'C:\\Users\\HP'
os.chdir("C:\\Users\\HP\\Desktop")
data = pd.read csv("diabetes.csv")
data.head(10)
   Pregnancies Glucose BloodPressure SkinThickness InsulinBMI
0
                                      72
                     148
                                                      35
                                                                0
                                                                    33.6
                      85
                                      66
                                                      29
                                                                    26.6
                     183
                                      64
                                                                    23.3
                      89
                                      66
                                                      23
                                                                94
                                                                    28.1
                     137
                                      40
                                                      35
                                                              168
                                                                    43.1
                     116
                                                                    25.6
                      78
                                      50
                                                      32
                                                                88
                                                                    31.0
             10
                     115
                                                                    35.3
                     197
                                      70
                                                      45
                                                               543 30.5
                     125
                                      96
                                                                     0.0
   DiabetesPedigreeFunction Age
                                   Outcome
0
                       0.627
                                50
1
                       0.351
                                31
```

0	0 670	2.0	1
2	0.672	32	Τ
3	0.167	21	0
4	2.288	33	1
5	0.201	30	0
6	0.248	26	1
7	0.134	29	0
8	0.158	53	1
9	0.232	54	1
data tail			

data.tail

<pre><bound method="" pre="" skinthickness<=""></bound></pre>		ame.tail of ulin BMI \	Pregnancies	Glucose	BloodPres	ssure
0	6	148	72	35	0	33.6
1	1	85	66	29	0	26.6
2	8	183	64	0	0	23.3
3	1	89	66	23	94	28.1
4	0	137	40	35	168	43.1
			• • •	• • •		
763	10	101	76	48	180	32.9
764	2	122	70	27	0	36.8
765	5	121	72	23	112	26.2
766	1	126	60	0	0	30.1
767	1	93	70	31	0	30.4

	DiabetesPedigreeFunction	Age	Outcome
0	0.627	50	1
1	0.351	31	0
2	0.672	32	1
3	0.167	21	0
4	2.288	33	1
763	0.171	63	0
764	0.340	27	0
765	0.245	30	0
766	0.349	47	1
767	0.315	23	0

[768 rows x 9 columns] >

```
data.shape
(768, 9)
data.size
6912
data.ndim
data.columns
Index(['Pregnancies', 'Glucose', 'BloodPressure', 'SkinThickness',
'Insulin',
       'BMI', 'DiabetesPedigreeFunction', 'Age', 'Outcome'],
      dtype='object')
data.head()
  Pregnancies Glucose BloodPressure SkinThickness Insulin
BMI \
                                     72
                   148
                                                    35
                                                             0 33.6
                     85
                                     66
                                                    29
                                                                  26.6
                    183
                                     64
                                                     0
                                                                  23.3
                     89
                                     66
                                                             94
                                                    23
                                                                  28.1
                    137
                                     40
                                                    35
                                                            168 43.1
  DiabetesPedigreeFunction Age
                                  Outcome
0
                      0.627
                              50
1
                      0.351
                                         0
                              31
2
                                         1
                      0.672
                              32
3
                      0.167
                              21
                                         0
4
                      2.288
                              33
data.drop(labels ="Age",axis = 1)
     Pregnancies Glucose BloodPressure SkinThickness Insulin
                                                                   BMI
0
                      148
                                                                 0 33.6
               6
                                       72
                                                      35
                      85
                                       66
                                                      29
                                                                   26.6
                      183
                                       64
                                                                    23.3
3
                       89
                                       66
                                                      23
                                                                94 28.1
```

0	137	40	35	168	43.1
10	101	76	48	180	32.9
2	122	70	27	0	36.8
5	121	72	23	112	26.2
1	126	60	0	0	30.1
1	93	70	31	0	30.4
	10 2 5	10 101 2 122 5 121 1 126	10       101       76         2       122       70         5       121       72         1       126       60	10       101       76       48         2       122       70       27         5       121       72       23         1       126       60       0	10       101       76       48       180         2       122       70       27       0         5       121       72       23       112         1       126       60       0       0

	DiabetesPedigreeFunction	Outcome
0	0.627	1
1	0.351	0
2	0.672	1
3	0.167	0
4	2.288	1
763	0.171	0
764	0.340	0
765	0.245	0
766	0.349	1
767	0.315	0

[768 rows x 8 columns]

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

	Pregnancies	BloodPressure	SkinThickness	Insulin	BMI	\
0	6	72	35	0	33.6	
1	1	66	29	0	26.6	
2	8	64	0	0	23.3	
3	1	66	23	94	28.1	
4	0	40	35	168	43.1	
763	10	76	48	180	32.9	
764	2	70	27	0	36.8	
765	5	72	23	112	26.2	
766	1	60	0	0	30.1	
767	1	70	31	0	30.4	

	DiabetesPedigreeFunction	Outcome
0	0.627	1
1	0.351	0
2	0.672	1
3	0.167	0
4	2.288	1

	• • •	
763	0.171	0
764	0.340	0
765	0.245	0
766	0.349	1
767	0.315	0

[768 rows x 7 columns]

data.drop(labels = 1, axis = 0)

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI
\						
0	6	148	72	35	0	33.6
2	8	183	64	0	0	23.3
3	1	89	66	23	94	28.1
4	0	137	40	35	168	43.1
5	5	116	74	0	0	25.6
763	10	101	76	48	180	32.9
764	2	122	70	27	0	36.8
765	5	121	72	23	112	26.2
766	1	126	60	0	0	30.1
767	1	93	70	31	0	30.4

DiabetesPedigreeFunction	Age	Outcome
0.627	50	1
0.672	32	1
0.167	21	0
2.288	33	1
0.201	30	0
0.171	63	0
0.340	27	0
0.245	30	0
0.349	47	1
0.315	23	0
	0.627 0.672 0.167 2.288 0.201  0.171 0.340 0.245 0.349	0.627 50 0.672 32 0.167 21 2.288 33 0.201 30 0.171 63 0.340 27 0.245 30 0.349 47

[767 rows x 9 columns]

data.head(10)									
BMI	Pregnancies	Glucose	Blood	Pressur	e Skir	nThickness	Insu	lin	
0	6	148	3		72		35	0	33.6
1	1	8;	5		66		29	0	26.6
2	8	183	3		64		0	0	23.3
3	1	89	9		66		23	94	28.1
4	0	137	7		40		35	168	43.1
5	5	116	5		74		0	0	25.6
6	3	78	3		50		32	88	31.0
7	10	115	5		0		0	0	35.3
8	2	19	7		70		45	543	30.5
9	8	125	5		96		0	0	0.0
0 1 2 3 4 5 6 7 8 9	DiabetesPed		0.627 0.351 0.672 0.167 2.288 0.201 0.248 0.134 0.158 0.232	50 31 32 21 33 30 26 29 53 54	1 0 1 0 1 0 1 0 1				
dat	a.drop(label				22170	SkinThick	~~~	Thaulir	DMT
\	rregnancie			iooarre		SKINTNICK			
0			L48		72		35		33.6
1		1	85		66		29		26.6
4			L37		40		35	168	
5		5	L16		74		0	(	25.6

32 88 31.0

762	10	101	76	48	180	22.0
763	10	101	7 0	48	180	32.9
764	2	122	70	27	0	36.8
765	5	121	72	23	112	26.2
703	5	121	1 Z	23	112	20.2
766	1	126	60	0	0	30.1
767	1	93	70	31	0	30.4
101	Τ	93	70	31	U	30.4

	DiabetesPedigreeFunction	Age	Outcome
0	0.627	50	1
1	0.351	31	0
4	2.288	33	1
5	0.201	30	0
6	0.248	26	1
	•••		
763	0.171	63	0
764	0.340	27	0
765	0.245	30	0
766	0.349	47	1
767	0.315	23	0

[766 rows x 9 columns]