

xperiment-no-2-data-manipulation

October 23, 2023

1 Data Manipulation

```
[1]: #Exp no.: 2
```

```
[2]: #Aim: Data Manipulation
```

```
[3]: #Name: Krutika Nemade  
#Roll no.: 55  
#Sec: A  
#Subject: Data Science and Statistics (Lab 1)
```

```
[4]: import pandas as pd
```

```
[5]: import os
```

```
[6]: os.getcwd()
```

```
[6]: 'C:\\Users\\hp\\Downloads'
```

```
[7]: os.chdir('C:\\Users\\hp\\Desktop')
```

```
[8]: data=pd.read_csv('diabetes.csv')
```

```
[9]: data.head(10)
```

```
[9]:
```

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	\
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	
5	5	116	74	0	0	25.6	
6	3	78	50	32	88	31.0	
7	10	115	0	0	0	35.3	
8	2	197	70	45	543	30.5	
9	8	125	96	0	0	0.0	

	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
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

```
[10]: data.tail()
```

```
[10]:      Pregnancies  Glucose  BloodPressure  SkinThickness  Insulin   BMI  \
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
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

```
[11]: data.shape
```

```
[11]: (768, 9)
```

```
[12]: data.size
```

```
[12]: 6912
```

```
[13]: data.ndim
```

```
[13]: 2
```

```
[14]: data.columns
```

```
[14]: Index(['Pregnancies', 'Glucose', 'BloodPressure', 'SkinThickness', 'Insulin',
        'BMI', 'DiabetesPedigreeFunction', 'Age', 'Outcome'],
        dtype='object')
```

```
[15]: data.head()
```

```
[15]: Pregnancies  Glucose  BloodPressure  SkinThickness  Insulin   BMI   \
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

      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
```

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

```
[16]: Pregnancies  Glucose  BloodPressure  SkinThickness  Insulin   BMI   \
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  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]
```

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

```
[17]: 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]

```
[18]: data.head(10)
```

```
[18]: Pregnancies Glucose BloodPressure SkinThickness Insulin BMI \
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
5          5       116          74           0          0 25.6
6          3        78          50          32          88 31.0
7         10       115           0           0          0 35.3
8          2       197          70          45         543 30.5
9          8       125          96           0          0  0.0
```

```
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
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

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

```
[19]:      Pregnancies  Glucose  BloodPressure  SkinThickness  Insulin   BMI  \
0              6      148            72           35         0  33.6
1              1       85            66           29         0  26.6
4              0      137            40           35        168  43.1
5              5      116            74           0          0  25.6
6              3       78            50           32         88  31.0
..          ...    ...          ...          ...    ...
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
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]
```