

```
In [1]: #EXP:1
```

```
In [2]: #Aim:To Perform operation of data acquisition
```

```
In [2]: #Name:Dev Sanjay Vaidya  
#Roll no:69  
#Sec:B  
#Subject:ET-1  
#Date:25-07-2025
```

```
In [4]: #importing the basic library  
import pandas as pd
```

```
In [6]: import os
```

```
In [7]: os.getcwd()
```

```
Out[7]: 'C:\\\\Users\\\\LENOVO'
```

```
In [8]: os.chdir("C:\\\\Users\\\\LENOVO\\\\Desktop")
```

```
In [9]: data=pd.read_csv("C:\\\\Users\\\\LENOVO\\\\Desktop\\\\diabetes.csv")
```

```
In [10]: data.head(20)
```

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	Outcome	
0	6	148	72	35	0	33.6		0.627	50	1
1	1	85	66	29	0	26.6		0.351	31	0
2	8	183	64	0	0	23.3		0.672	32	1
3	1	89	66	23	94	28.1		0.167	21	0
4	0	137	40	35	168	43.1		2.288	33	1
5	5	116	74	0	0	25.6		0.201	30	0
6	3	78	50	32	88	31.0		0.248	26	1
7	10	115	0	0	0	35.3		0.134	29	0
8	2	197	70	45	543	30.5		0.158	53	1
9	8	125	96	0	0	0.0		0.232	54	1
10	4	110	92	0	0	37.6		0.191	30	0
11	10	168	74	0	0	38.0		0.537	34	1
12	10	139	80	0	0	27.1		1.441	57	0
13	1	189	60	23	846	30.1		0.398	59	1
14	5	166	72	19	175	25.8		0.587	51	1
15	7	100	0	0	0	30.0		0.484	32	1
16	0	118	84	47	230	45.8		0.551	31	1
17	7	107	74	0	0	29.6		0.254	31	1
18	1	103	30	38	83	43.3		0.183	33	0
19	1	115	70	30	96	34.6		0.529	32	1

```
In [11]: data.tail()
```

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	Outcome	
763	10	101	76	48	180	32.9		0.171	63	0
764	2	122	70	27	0	36.8		0.340	27	0
765	5	121	72	23	112	26.2		0.245	30	0
766	1	126	60	0	0	30.1		0.349	47	1
767	1	93	70	31	0	30.4		0.315	23	0

```
In [12]: data.describe()
```

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	C
count	768.000000	768.000000	768.000000	768.000000	768.000000	768.000000	768.000000	768.000000	768.000000
mean	3.845052	120.894531	69.105469	20.536458	79.799479	31.992578	0.471876	33.240885	0
std	3.369578	31.972618	19.355807	15.952218	115.244002	7.884160	0.331329	11.760232	0
min	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.078000	21.000000	0
25%	1.000000	99.000000	62.000000	0.000000	0.000000	27.300000	0.243750	24.000000	0
50%	3.000000	117.000000	72.000000	23.000000	30.500000	32.000000	0.372500	29.000000	0
75%	6.000000	140.250000	80.000000	32.000000	127.250000	36.600000	0.626250	41.000000	1
max	17.000000	199.000000	122.000000	99.000000	846.000000	67.100000	2.420000	81.000000	1

In [13]: `data.shape`

Out[13]: (768, 9)

In [14]: `data.size`

Out[14]: 6912

In [15]: `data.ndim`

Out[15]: 2

In [16]: `data.columns`

Out[16]: Index(['Pregnancies', 'Glucose', 'BloodPressure', 'SkinThickness', 'Insulin',
 'BMI', 'DiabetesPedigreeFunction', 'Age', 'Outcome'],
 dtype='object')

In [17]: `data.info()`

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 768 entries, 0 to 767
Data columns (total 9 columns):
 #   Column           Non-Null Count  Dtype  
 ---  --  
 0   Pregnancies      768 non-null    int64  
 1   Glucose          768 non-null    int64  
 2   BloodPressure    768 non-null    int64  
 3   SkinThickness    768 non-null    int64  
 4   Insulin          768 non-null    int64  
 5   BMI              768 non-null    float64 
 6   DiabetesPedigreeFunction 768 non-null    float64 
 7   Age              768 non-null    int64  
 8   Outcome          768 non-null    int64  
dtypes: float64(2), int64(7)
memory usage: 54.1 KB
```

In []: