In [1]:
```
# import libraries
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:
```
from sklearn.linear_model import LogisticRegression
```

In [3]:
```
# To Import Dataset
sd=pd.read_csv(r"c:\Users\user\Downloads\C5_health care diabetes.csv")
sd
```

Out[3]:

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunctio
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 × 9 columns

In [4]:
```
sd.fillna(20)
```

Out[4]:

	Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunctio
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 × 9 columns

In [7]:
```
feature_matrix = sd.iloc[:,0:12]
target_vector=sd.iloc[:,-1]
```

In [8]:
```
feature_matrix.shape
```

Out[8]:
```
(768, 9)
```

In [9]:
```
target_vector.shape
```

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

In [10]:
```
from sklearn.preprocessing import StandardScaler
```

In [11]:
```
fs=StandardScaler().fit_transform(feature_matrix)
```

In [12]:
```
logr= LogisticRegression()
logr.fit(fs,target_vector)
```

Out[12]:
```
LogisticRegression()
```

In [13]:
```
observation =[[1.2,2.3,3.3]]
```

In [15]:
```
logr.classes_
```

Out[15]:
```
array([0, 1], dtype=int64)
```