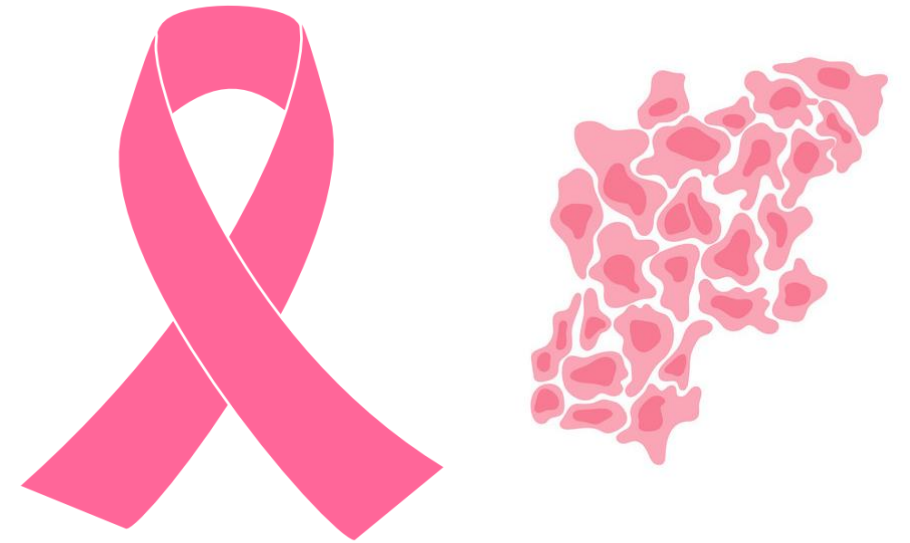


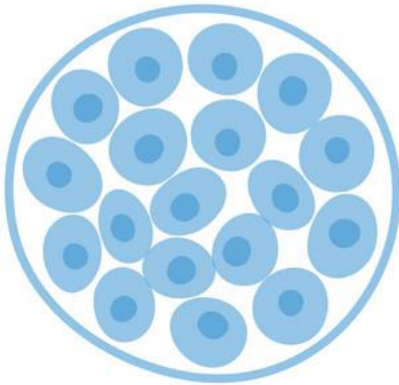
Siddhardhan

# Breast Cancer Classification With Python

Machine Learning Project

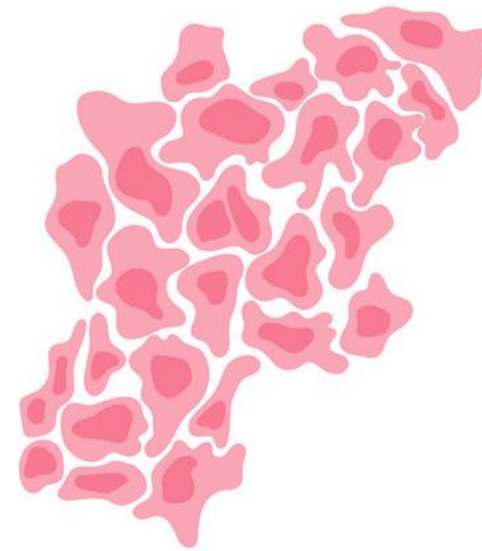


# Types of Tumor



## Benign tumor

- Non-cancerous
- Capsulated
- Non-invasive
- Slow growing
- Do not metastasize (spread) to other parts of the body
- Cells are normal



## Malignant tumor

- Cancerous
- Non-capsulated
- Fast growing
- Metastasize (spread) to other parts of the body
- Cells have large, dark nuclei; may have abnormal shape

## Dataset

**Fine needle aspiration** is a type of biopsy procedure. In fine needle aspiration, a thin needle is inserted into an area of abnormal-appearing tissue or body fluid. As with other types of biopsies, the sample collected during fine needle aspiration can help make a diagnosis or rule out conditions such as cancer.

diagnosis	radius_mean	texture_mean	perimeter_mean	area_mean	smoothness_mean	compactness_mean	concavity_mean	concave points_mean	symmetry_mean	fractal_dimension_mean
0	17.99	10.38	122.8	1001	0.1184	0.2776	0.3001	0.1471	0.2419	0.07871
0	20.57	17.77	132.9	1326	0.08474	0.07864	0.0869	0.07017	0.1812	0.05667
0	19.69	21.25	130	1203	0.1096	0.1599	0.1974	0.1279	0.2069	0.05999
1	13.54	14.36	87.46	566.3	0.09779	0.08129	0.06664	0.04781	0.1885	0.05766
1	13.08	15.71	85.63	520	0.1075	0.127	0.04568	0.0311	0.1967	0.06811

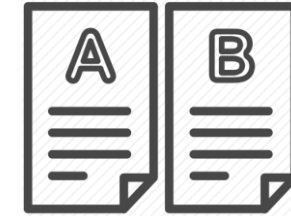
## Work Flow



Dataset



Data pre processing



Train Test split



Logistic Regression model

Trained Logistic Regression model



New data



Benign  
(or)  
Malignant

Prediction