**Introduction:**

Breast cancer is proclaimed to be the most prevalent tumor and classification of the tumor cells into Benign and Malignant ascertains to be beneficial in the preparatory stages for the affected patient to receive the optimal treatment. A contrasting comparison is drawn between two algorithms. Machine Learning makes use of the Transfer Learning technique to attain a higher learning rate and stores the knowledge gained whilst classifying the tumor cells. And the contrasting algorithm C4.5 is used in Data Mining as a Decision Tree Classifier which aids in making the most valuable decision on the given set of data and also proves its use by curtailing the conclusive overfitting rate.

**Data Source:**

Dataset name: Wisconsin Diagnostic Breast Cancer (WDBC)database from the UC Irvine Machine Learning Repository.

Number of records(tuples): 699 records

Number of attributes: 11 attributes

**Environment and tools used:**

* Jupyter Notebook
* Numpy
* Pandas
* Scikit-image
* Matplotlib
* Scikit-learn
* Keras

**Output:**

The decision tree algorithms employed in python resulted into an efficient model with accuracy 94.16% which can very evidently state whether a particular cell is benign or malignant.