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Breast Cancer Prediction

Data Science project

Project Objective

Breast Cancer Prediction is a classification task aimed at predicting the diagnosis of a breast mass as either malignant or benign. The dataset used for this prediction consists of features computed from a digitized image of a fine needle aspirate (FNA) of the breast mass. These features describe various characteristics of the cell nuclei present in the image.

Predictive Models

Logistic Regression

- Logistic regression model has 96.49 % accuracy

```
print("Accuracy:", accuracy)
```

```
Accuracy: 0.9649122807017544
```

```
pd.DataFrame({'Actual_Value':y_test,'Predicted_Value':lr_pred})
```

	Actual_Value	Predicted_Value
204	0	0
70	1	1
131	1	1
431	0	0
540	0	0
...	...	...
486	0	0
75	1	1
249	0	0
238	0	1
265	1	1

Decision Tree

- Decision Tree model has 93.85 % accuracy

```
accuracy_score(y_test,y_pred)
```

[55]: 0.9385964912280702

```
pd.DataFrame({'Actual_Value':y_test,'Predicted_Value':y_pred})
```

[60]:

	Actual_Value	Predicted_Value
204	0	0
70	1	1
131	1	1
431	0	0
540	0	0
...	...	...
486	0	0
75	1	1
249	0	0
238	0	0
265	1	1

114 rows × 2 columns

Random Forest

- Random Forest has 96.49 % accuracy

```
accuracy_score(y_test,rf_pred)
```

```
0.9649122807017544
```

```
pd.DataFrame({'Actual_Value':y_test,'Predicted_Value':rf_pred})
```

	Actual_Value	Predicted_Value
204	0	0
70	1	1
131	1	1
431	0	0
540	0	0
...	...	...
486	0	0
75	1	1
249	0	0
238	0	0
265	1	1

Thanks

Thank you everyone who been with me with this journey.
Check the github repository for more info about the project