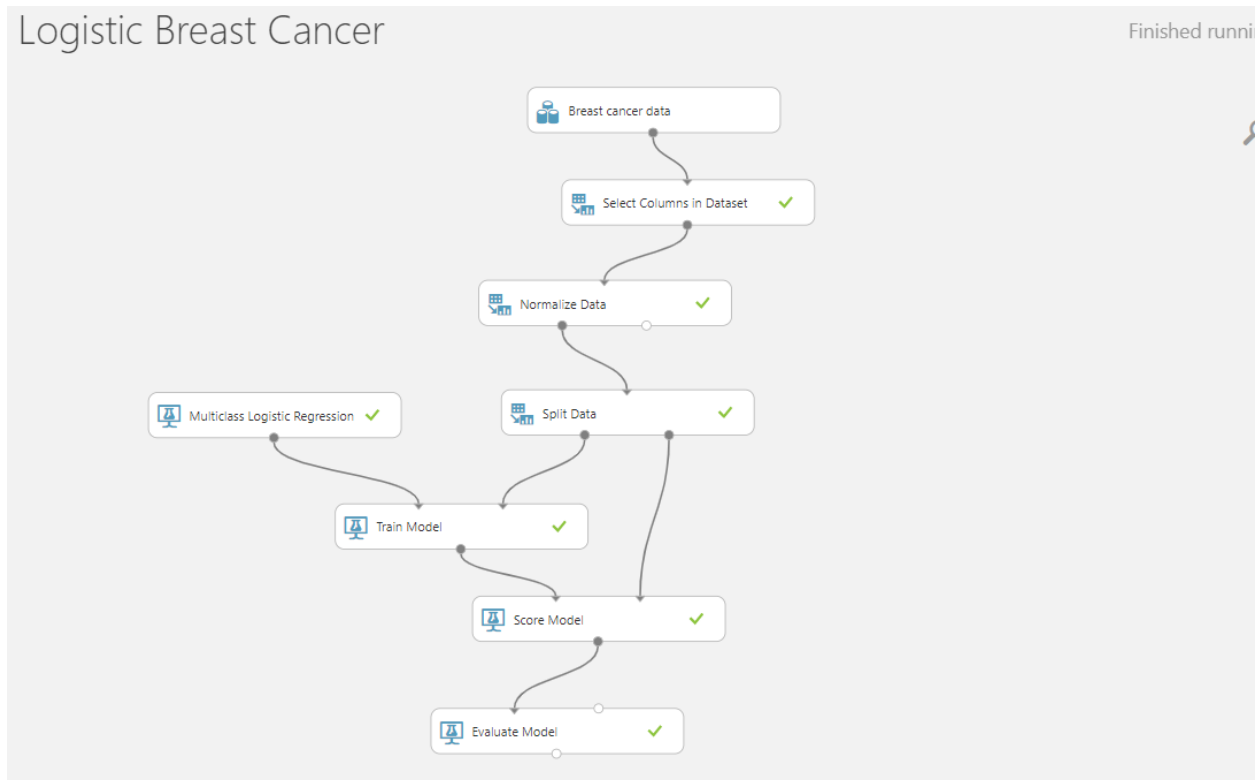# ASSIGNMENT Day 3 FDP

❖ Logistic Model for breast cancer

Model Architecture

Dataset Column Select

Logistic Breast Cancer › Select Columns in Dataset › Results dataset

	rows	columns
	683	4

	Class	age	tumor-size	breast
view as				
	0	5	1	3
	0	5	4	3
	0	3	1	3
	0	6	8	3
	0	4	1	3
	1	8	10	9
	0	1	1	3
	0	2	2	3
	0	2	1	1
	0	4	1	2
	0	1	1	3

>
▲ Statistics

▲ Visualizations

To view, select a column in the table.

Training Model

Logistic Breast Cancer › Multiclass Logistic Regression › Untrained model

Multiclass Logistic Regression Classifier

Settings

Setting	Value
Optimization Tolerance	1E-07
L1 Weight	1
L2 Weight	1
Memory Size	20
Quiet	True
Use Threads	True
Allow Unknown Levels	True
Random Number Seed	

Trained Model

Logistic Breast Cancer ❯ Train Model ❯ Trained model

Setting	Value
Optimization Tolerance	1E-07
L1 Weight	1
L2 Weight	1
Memory Size	20
Quiet	True
Use Threads	True
Allow Unknown Levels	True
Random Number Seed	

Feature Weights

Feature	-0.733681326113927	1.36298957654637
tumor-size	-2.60995	2.60995
Bias	2.25417	-2.25416
breast	-1.81493	1.81493
age	-1.79396	1.79396

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Scored dataset

Logistic Breast Cancer > Score Model > Scored dataset

rows	columns
341	7

	Class	age	tumor-size	breast	Scored Probabilities for Class "-0.733681326113927"	Scored Probabilities for Class "1.36298957654637"	Scored Labels
1.36299	1.971775	2.271896	0.635199	0.002697	0.997303	1.36299
1.36299	0.907453	0.932487	1.452225	0.039035	0.960965	1.36299
-0.733681	-1.221191	-0.741774	-0.181827	0.975913	0.024087	-0.7336
1.36299	1.971775	2.271896	2.677764	0.00036	0.99964	1.36299
-0.733681	-0.156869	-0.741774	-0.181827	0.924542	0.075458	-0.7336
-0.733681	-0.866417	-0.741774	-0.181827	0.964533	0.035467	-0.7336
-0.733681	-1.221191	-0.741774	-0.59034	0.983778	0.016222	-0.7336
-0.733681	-0.511643	-0.741774	-0.59034	0.964692	0.035308	-0.7336
1.36299	0.552679	2.271896	1.452225	0.005912	0.994088	1.36299
1.36299	0.552679	1.26734	1.860738	0.022137	0.977863	1.36299

▲ Statistics

▲ Visualization

Evaluate (Result)

Logistic Breast Cancer > Evaluate Model > Evaluation results

◢ Metrics

Overall accuracy	0.953079
Average accuracy	0.953079
Micro-averaged precision	0.953079
Macro-averaged precision	0.949996
Micro-averaged recall	0.953079
Macro-averaged recall	0.946419

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Confusion Matrix

Logistic Breast Cancer ❯ Evaluate Model ❯ Evaluation results

Macro-averaged recall   0.946419

◢ Confusion Matrix

Predicted Class

	-0.73368...	1.362989...
-0.73368...	96.8%	3.2%
1.362989...	7.6%	92.4%

Actual Class