Sentiment Analysis

binary classification

experimental in Azure ML

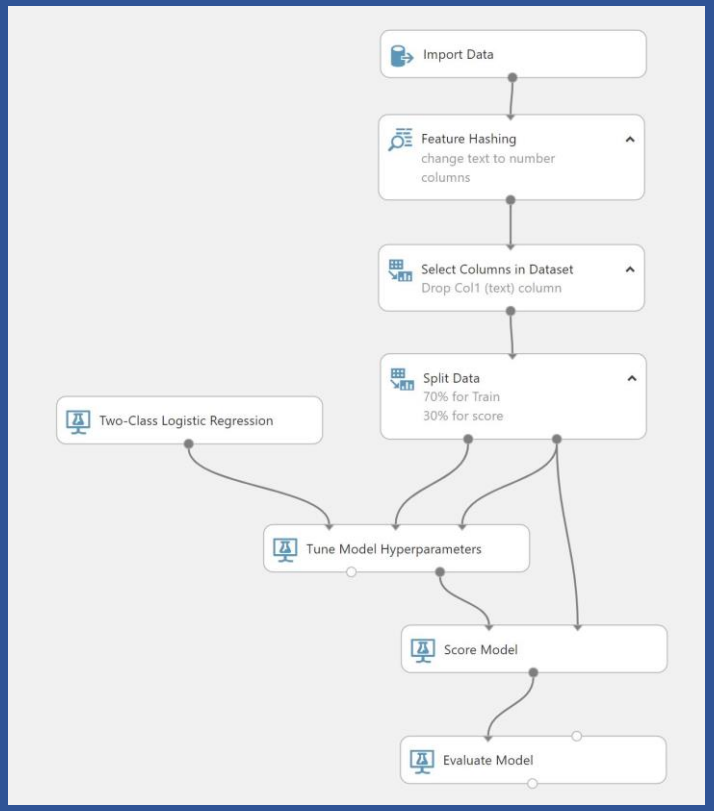
In this session

- Task and Data
- Create a new experiment in Azure ML Studio
- Import Data
- Run and Visualize
- Add Feature Hashing
- Run and Visualize

- Drop Col1
- Add Split Data
- Add Tune Model Hyperparameters
- Add Two-class Logistic Regression
- Add Score Model
- Add Evaluate Model

The finished model

https://raw.githubusercontent.com/laploy/ML.NET/master/Sentiment/Azure-ML-Model.JPG



Task and Data

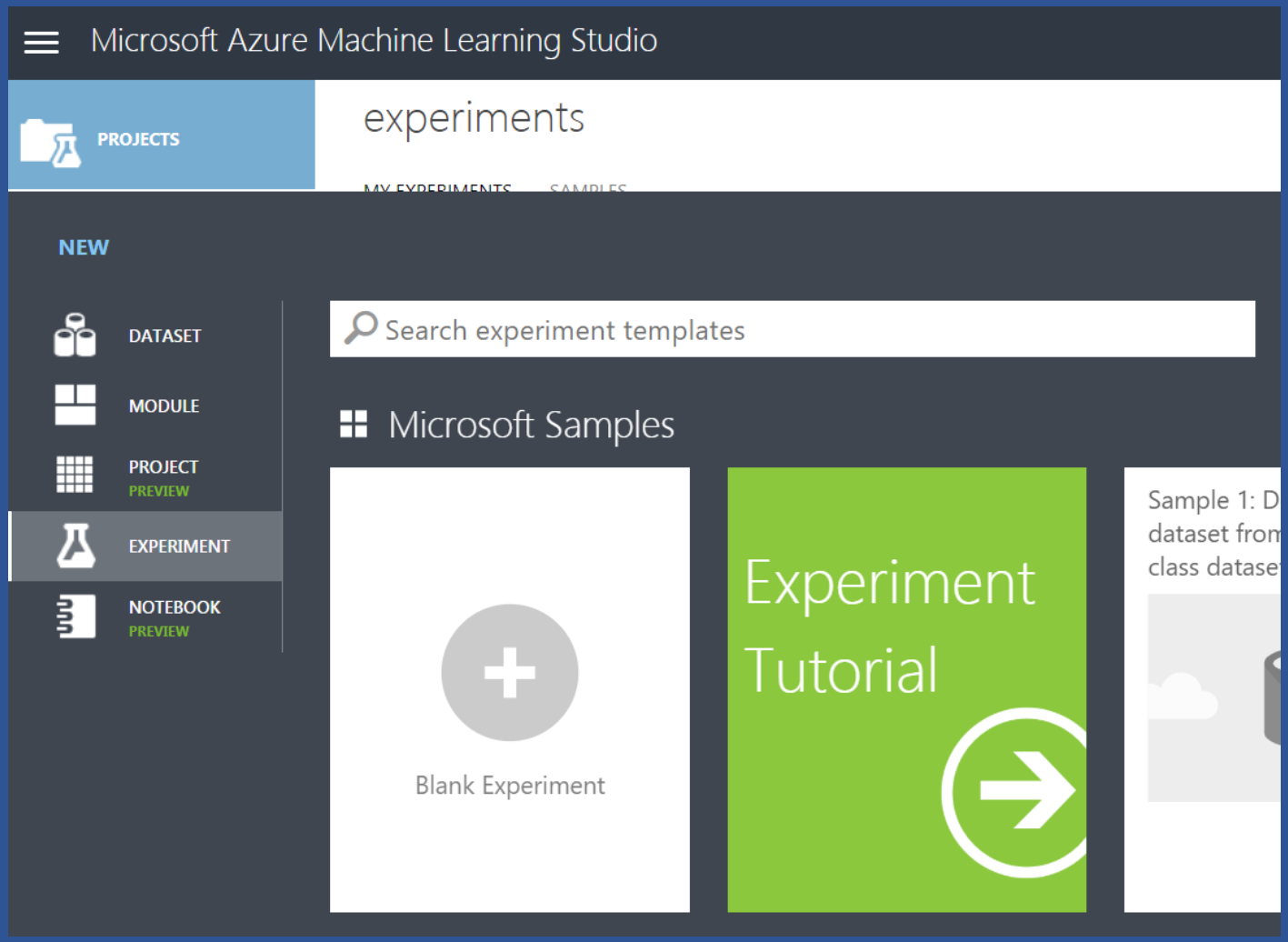
Task = Make a prediction if the user message is positive or negative

Data for train

- file name: yelp_labelled.txt
- Row: 1,000
- Column : 2
- Label: Col2

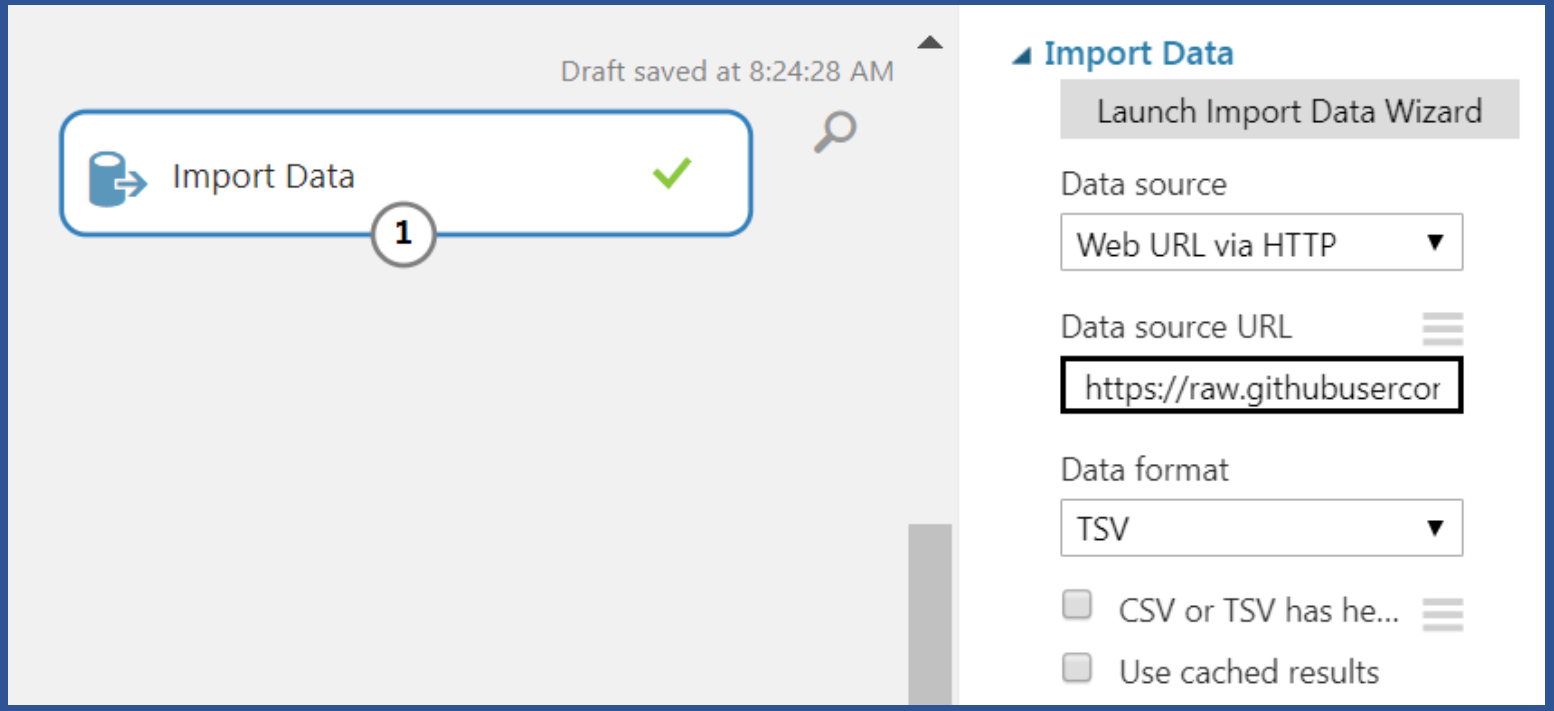
	A	B
1	Wow... Loved this place.	1
2	Crust is not good.	0
3	Not tasty and the texture was just nasty.	0
4	Stopped by during the late May bank holiday off Rick Steve recomme	1
5	The selection on the menu was great and so were the prices.	1
6	Now I am getting angry and I want my damn pho.	0
7	Honeslty it didn't taste THAT fresh.)	0
8	The potatoes were like rubber and you could tell they had been made	0
9	The fries were great too.	1
10	A great touch.	1

Create a new experiment in Azure ML Studio

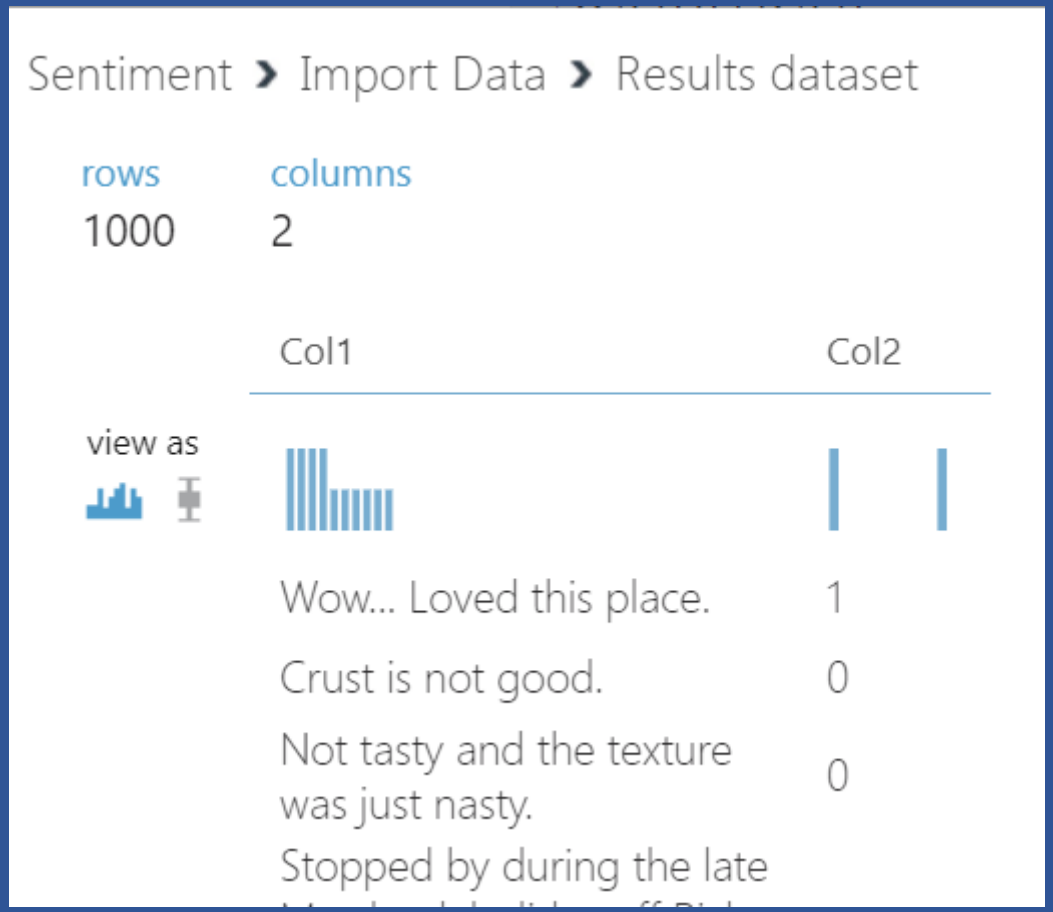


Import Data

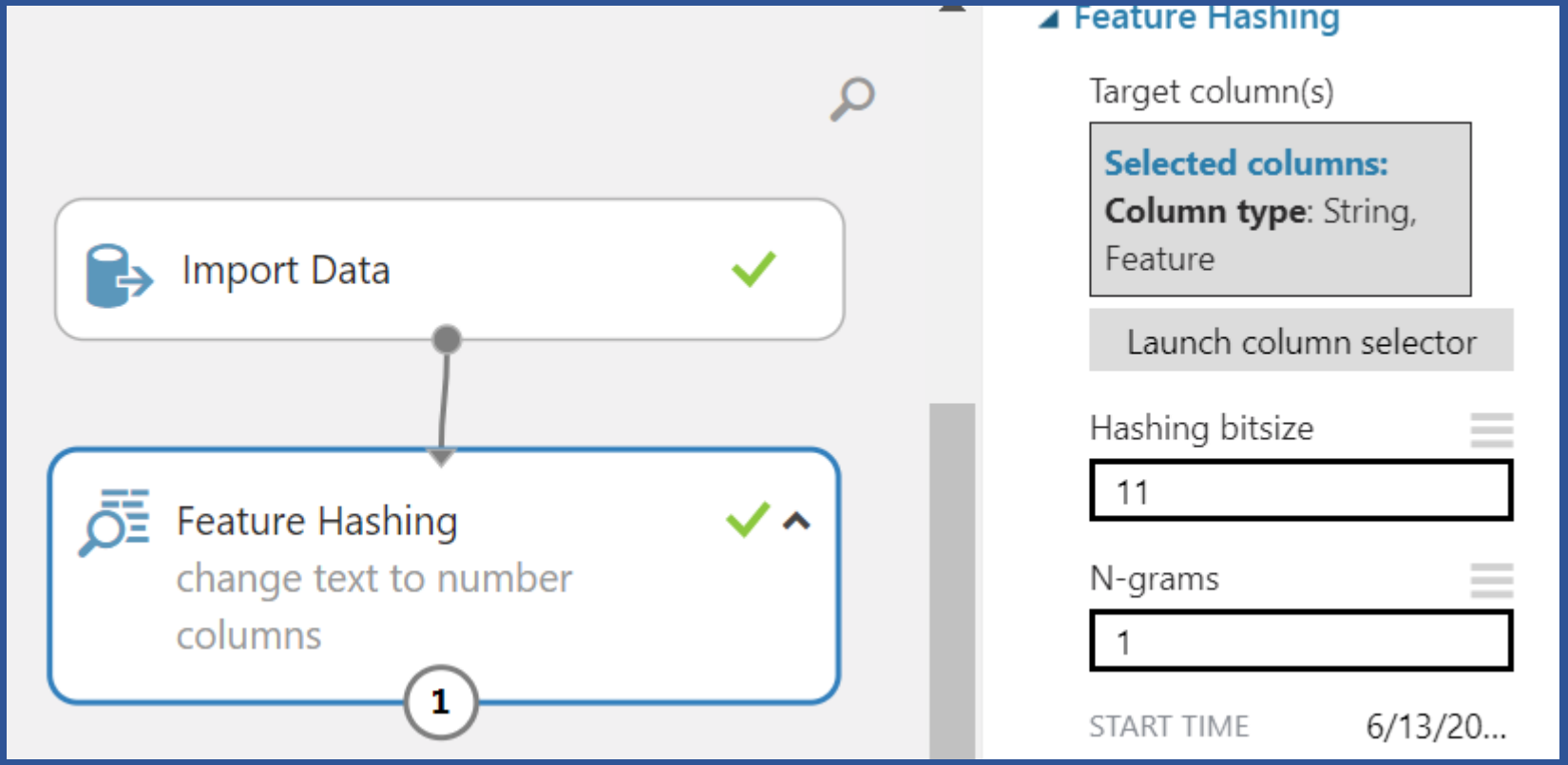
https://raw.githubusercontent.com/laploy/ML.NET/master/Sentiment/yelp_labelled.txt



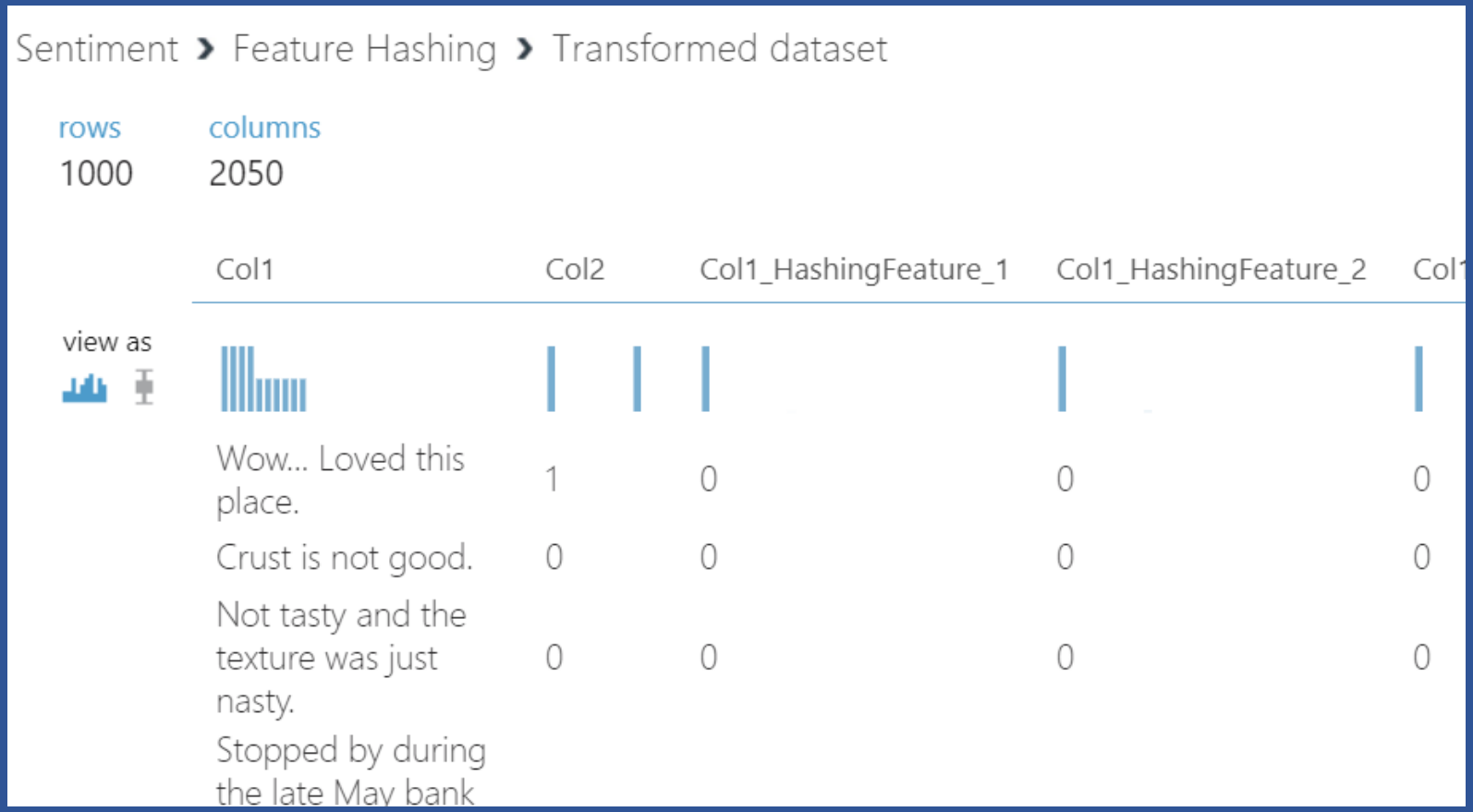
Run and Visualize



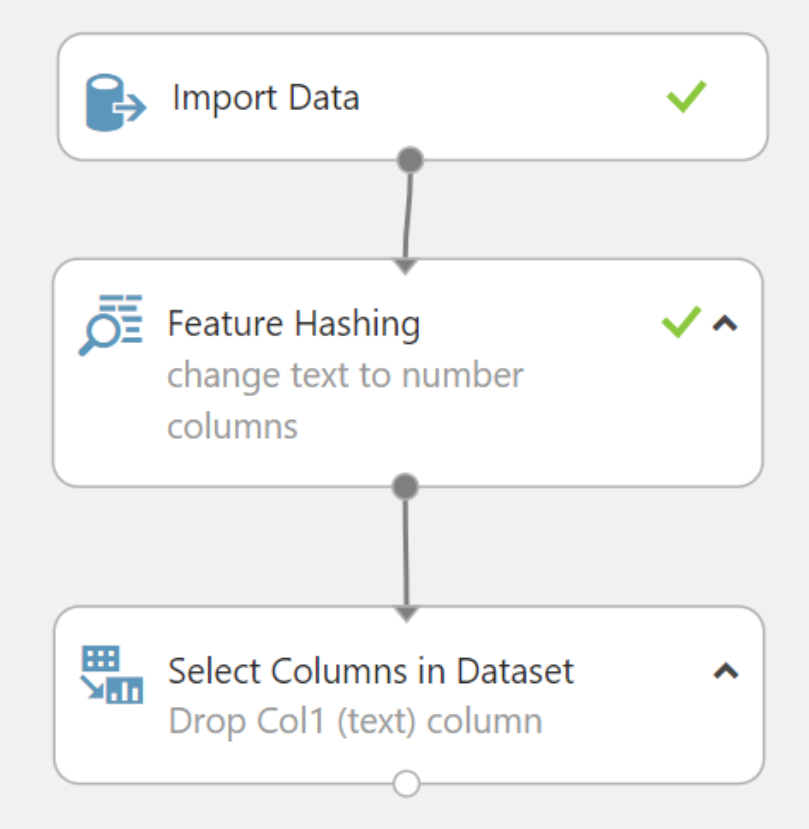
Add Feature Hashing



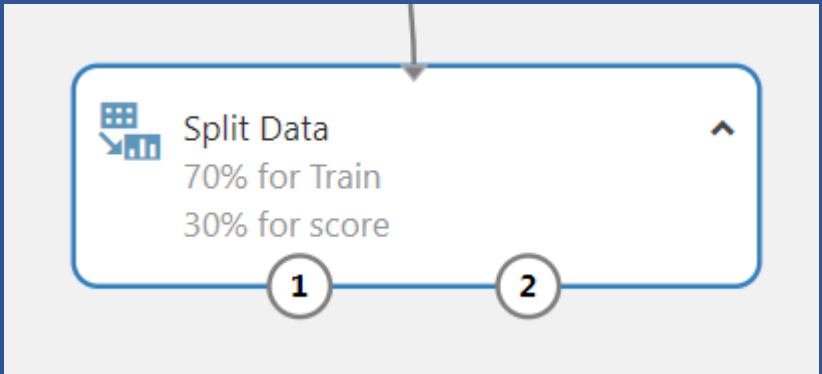
Run and Visualize

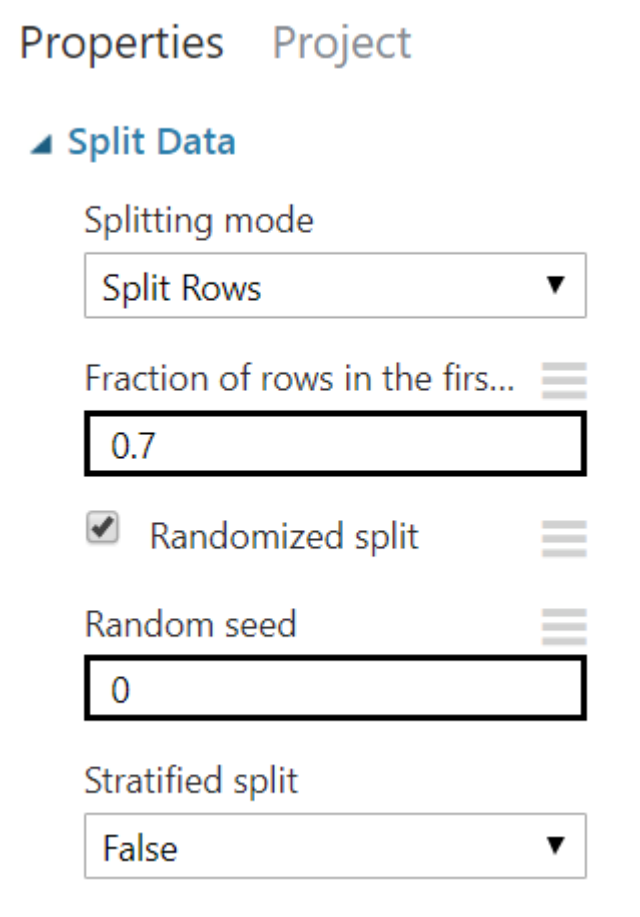


Add Select Columns in Dataset module to Drop Col1

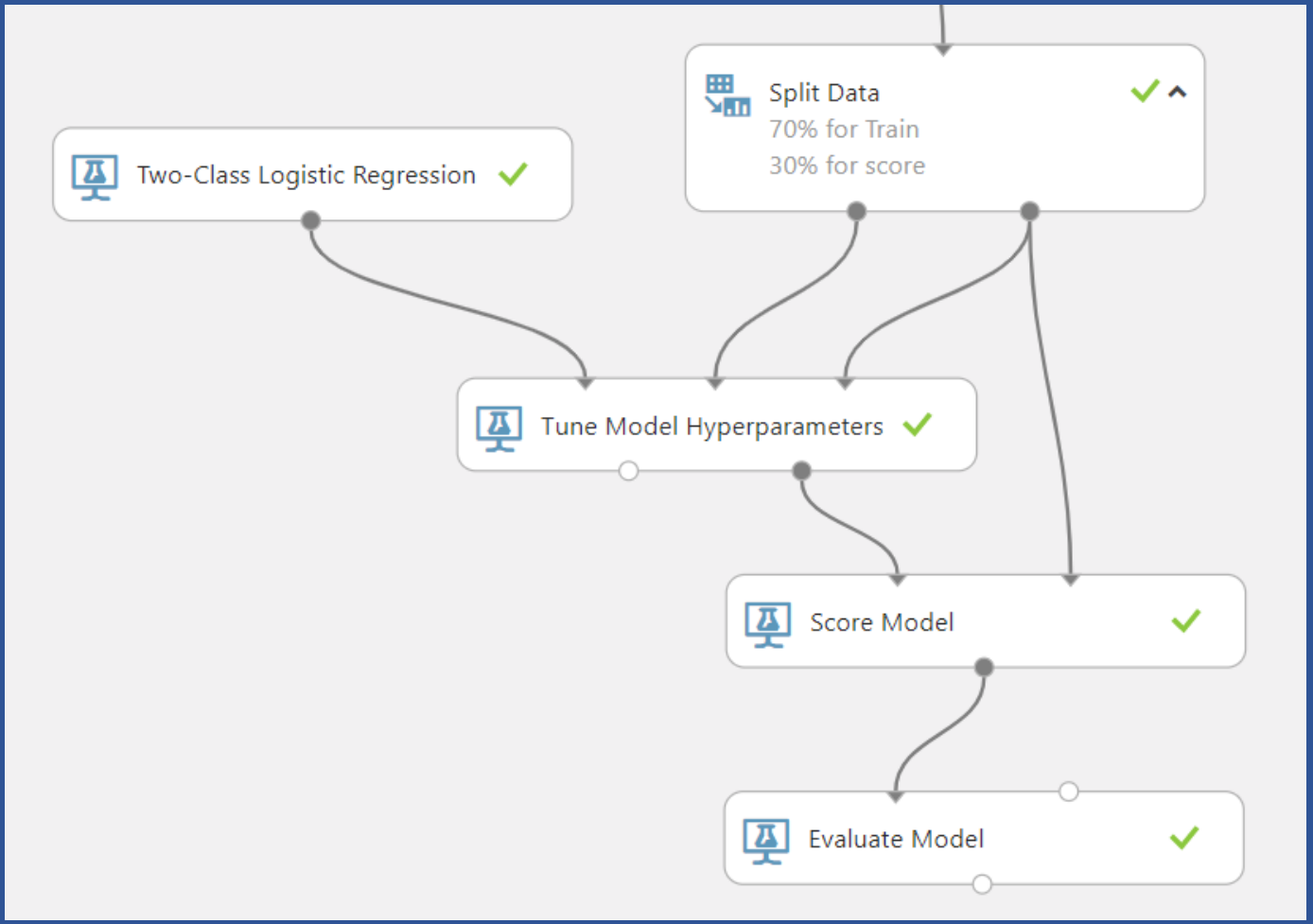


Add Split Data





Add Tune Model Hyperparameters, Two-class Logistic Regression, Score Model, and Evaluate Model



Run and View evaluation Results

True Positive	False Negative	Accuracy	Precision
106	46	0.690	0.693
False Positive	**True Negative**	**Recall**	**F1 Score**
47	101	0.697	0.695
Positive Label	**Negative Label**		
1	0		

Next Step

Sentiment AutoML