# **Configuring Machine Learning Models**

Configuring a model to make it ready for training involves specifying the data dimension fields, a label field if necessary, any required transformers and a learner. You can get to the model configuration page by finding the model in the Machine Learning **List Models** page, click on the model's actions button and select **Edit**.

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System Menu	Machine L	earning Models	> Us O Ter
Home		+ New	
Search	ID Name	Description	Source × De
Wiki 🕶	1 Divorce Predictor	Predict whether a couple will stay married or get divorced.	Divorce dataset 🛛 🖌
File Galleries 🕶			
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Find edit option in model's action menu

System Menu	Edit Mad	chine Learning Model		
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Search	Name	Divorce Predictor		
Wiki <del>v</del>	Description	Predict whether a couple will stay married or get divorced.		
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Machine Learning -	Source tracker	Divorce dataset		
Settings <del>•</del>			0	
	Dimension fields	Item title Q1		
		Q2		
		Q3 Q4		
		05		
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		Q7		
		Q8 Q9		
			~	
	Label field	No label	~	
	Ignore items with empty values			
	ML Model	Transformers and Learner \Theta Arguments		
		Select V Enter Arguments		
		Update		

## **Selecting Dimension and Label Fields**

Dimension fields are chosen from a list of fields gotten from the data source tracker. These are shown in a multiselect list interface. Select a field by clicking on it. Select multiple fields by holding down the Ctrl keyboard key and clicking on the fields.

Trackers • Machine Learning • Settings •	Source tracker Dimension fields	Divorce dataset		đi.
	Label field	Q49 050 051 052 052 053 054 Class No label		
	lgnore items with empty values ML Model	Transformers and Learner	Arguments	

Select dimension fields from multi-select list

Chosen dimension fields are the data attributes that model will be trained on. Tiki will leave out all unselected fields.

The label field is the data attribute that contains the target to be predicted. A label field is required if the chosen learner is a classifier.

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File Galleries -	Description	Q43	
Trackers 🕶		Q44	
		Q45	
Machine Learning -	Source tracker	Q46	
Settings 👻	Dimension fields	Q47	
		Q48	
		Q49	
		Q50	
		Q51	
		Q52	
		Q53	
		Q54	
		Class	×
	Label field	Class	~
	Ignore items with empty values		

Set label field if required by learner

Some regression-based learners like Gradient Boost will also require a label field specified. In such a case, the data attribute chosen as the label field is usually expected to be of numeric type.

### Handling Empty Data Values

Before a sample is used for training, Tiki by default will replace empty numeric fields with 0. Empty categorical fields will remain as empty strings. If you do not want this behaviour, you can make Tiki to simply ignore samples with empty fields by checking the **Ignore items with empty values** option.

	03 04 05 06 07 08 09		v
Label field	Class		~
Ignore items with empty values	2		
ML Model	Transformers and Learner 📀	Arguments	
	Select v	Enter Arguments	
I	Update		

Check the box to ignore empty data values

With this option checked, Tiki will skip any item that contain empty fields during model training, and it will not be used to train the model.

#### **Adding Transformers and Learners**

You use transformers to preprocess data before model training. A learner is a machine learning algorithm on which the machine learning model will be based. The type of transformers and learner you choose will depend on the structure and format of the training data and the type of target that you want to predict.

	02 03 04 05 06 07 08 09		v
Label field Ignore items with empty values	Class		*
ML Model	Transformers and Learner  Select	Arguments Enter Arguments	
	Update		

Choose a transformer or learner

	Select	^	
	Classifiers		
	AdaBoost	- 11	
	ClassificationTree		
	ExtraTreeClassifier		
	GaussianNB		
	KDNeighbors		~
Label field	KNearestNeighbors		~
	LogitBoost		
Ignore items	LogisticRegression		
with empty values	MultilayerPerceptron		
Vinite2	NaiveBayes		
ML Model	RadiusNeighbors	J	Arguments
	Select	~	Enter Arguments
	_		
	Update		

Pick a transformer or learner from the list

Label field Ignore item with empty values		v
ML Model	Transformers and Learner 💿	← Arguments
	Update	

Click Enter Arguments to show popup

Add a transformer or a learner by simply selecting it from the dropdown list and clicking on Enter Arguments button.

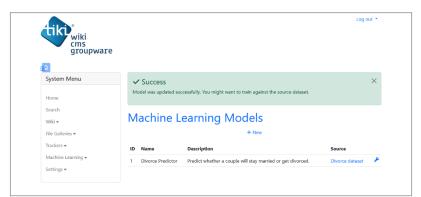
	KNeares	stNeighbors arguments	×	
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Enter arguments		03		
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Enter arguments	Label field	Q4 Q5 Q7 Q9 Class		v
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Enter arguments	Ignore items with empty values	Q4 Q5 Q7 Q8 Q9 Class I Transformers and Learner •	K Nearest Neighbors (k: 3, weight	~
Enter arguments	Ignore items with empty values	04 05 07 08 09 Class Class Class	K Nearest Neighbors (k: 3, weight Euclidean)	~

Learner added

A popup will be displayed for you to enter the argument values to be used internally to control the transformer or learning algorithm. Tiki will autofill any left out parameters with default values.

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	Ignore items with empty values	2		
	ML Model	Transformers and Learner 😏	Arguments	
		KNearestNeighbors	K Nearest Neighbors (k: 3, weighted: false, kernel: Euclidean)	×
		Select ~	Enter Arguments	
Show PHP error messages		Update		

Fully configured



Success message after configuration

You add transformers in the order in which you want the data processed and you can add as many transformers as you deem fit. As a convention, the learner should be added last and only one learner is required. Adding multiple learners might result in unexpected behaviour.

Tiki internally uses Rubix ML for its Machine Learning functionality, so only transformers and learners available in Rubix ML are supported by Tiki.

Due to Tiki Tracker's robust nature, some data transformations might not be necessary. For example, Numeric String Converter works by converting all numeric values that have been given as categorical values to their equivalent integer and floating point types. Tiki will handle this automatically if the given values belong to a numeric field type in the source tracker. Applying the least possible number of transformers will help reduce model latency.

#### **Related links**

- Machine Learning
- Preparing Machine Learning Dataset
- Creating Machine Learning Models
- Training Machine Learning Models
- Using Machine Learning Models
- Rubix ML