



Support Vector Machines with Azure ML



Contents

Table of Contents

Problem Description	4
Click 'save as' icon	5
Copy and paste.....	6
Two Class Support Vector Machine	7
Connect score model	8
Required Parameters	9
Result	10

Goals and Requirements

Estimated time to complete lab is 10-15 minutes.

Goals

1. Develop and Predict IRIS Data class.
2. Develop the Model using Multiclass Decision Forest

Requirement:

1. Access to an Azure Machine Learning and the Dataset for IRIS

Support Vector Machines

Problem Description: Implement the predict on Adult Census Data using SVM to compare.

Adult census data which done earlier

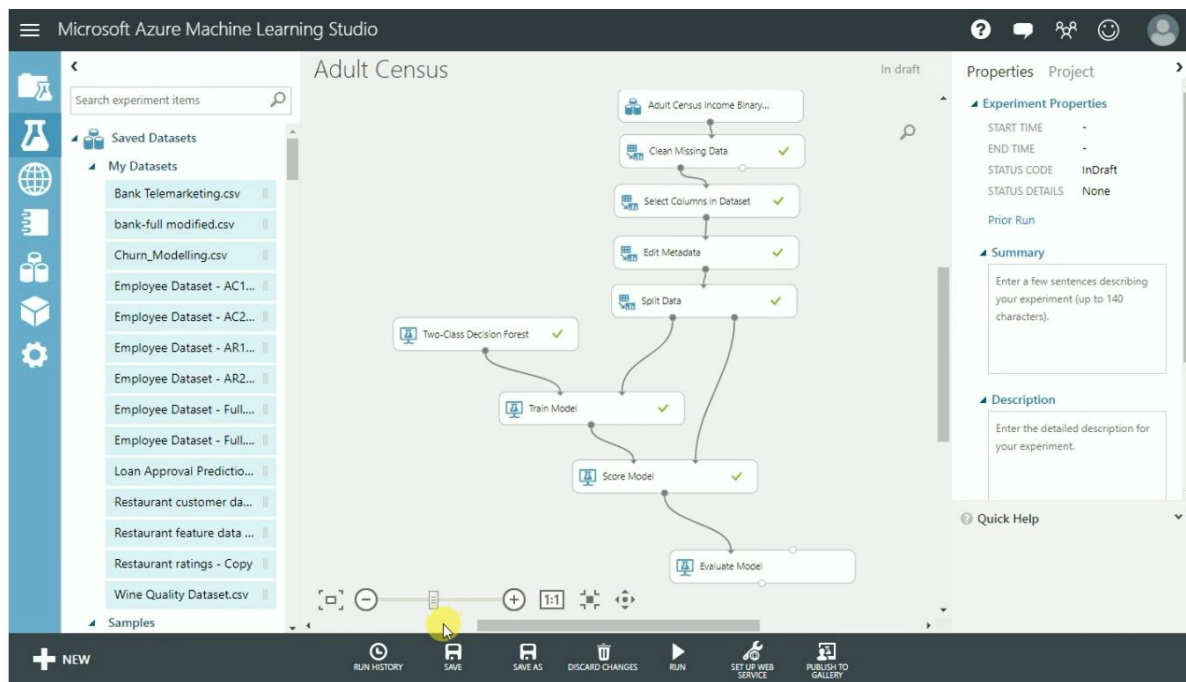
Click on experiment and open

The screenshot displays the Microsoft Azure Machine Learning Studio interface. The left sidebar contains navigation options: PROJECTS, EXPERIMENTS (selected), WEB SERVICES, NOTEBOOKS, DATASETS, TRAINED MODELS, and SETTINGS. The main area is titled 'experiments' and shows a table of 'MY EXPERIMENTS'.

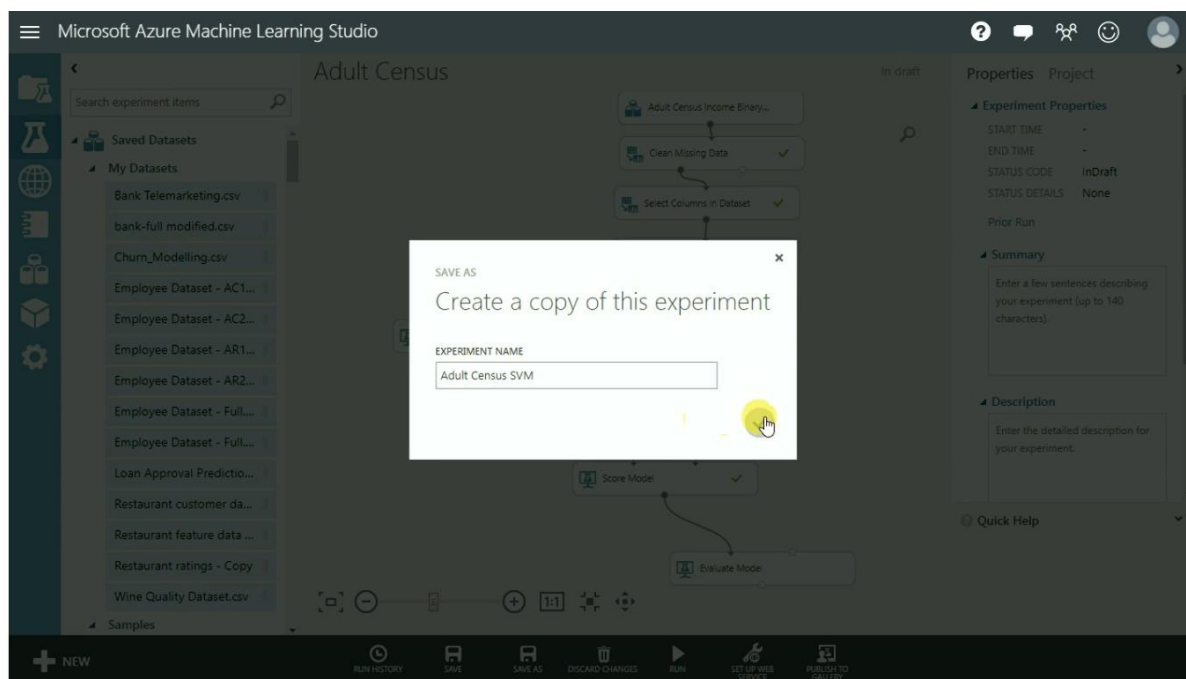
	NAME	AUTHOR	STATUS	LAST EDITED	P...
<input checked="" type="checkbox"/>	Adult Census		Draft	10/1/2017 9:40:42 ...	None
<input type="checkbox"/>	Experiment Adult.Census.3y2...		Draft	9/26/2017 10:30:35 ...	None
<input type="checkbox"/>	IRIS		Draft	9/26/2017 10:30:09 ...	None
<input type="checkbox"/>	IRIS		Draft	9/26/2017 2:56:39 P...	None
<input type="checkbox"/>	Experiment created on 9/25/2...		Finished	9/25/2017 8:51:24 P...	None
<input type="checkbox"/>	Bank Telemarketing		Draft	9/25/2017 11:12:44 ...	None
<input type="checkbox"/>	Wine Category		Finished	9/24/2017 11:32:48 ...	None
<input type="checkbox"/>	Loan Approval		Draft	9/23/2017 9:09:06 P...	None
<input type="checkbox"/>	Experiment created on 9/17/2...		Draft	9/17/2017 1:38:22 P...	None
<input type="checkbox"/>	Experiment created on 9/17/2...		Draft	9/17/2017 11:25:02 ...	None

On the right side, a workflow diagram is visible, showing a sequence of steps: Adult Census Income Binary C..., Clean Missing Data (checked), Select Columns in Dataset (checked), Edit Metadata (checked), Split Data (checked), Two-Class Decision Forest (checked), Train Model (checked), Score Model (checked), and Evaluate Model (checked).

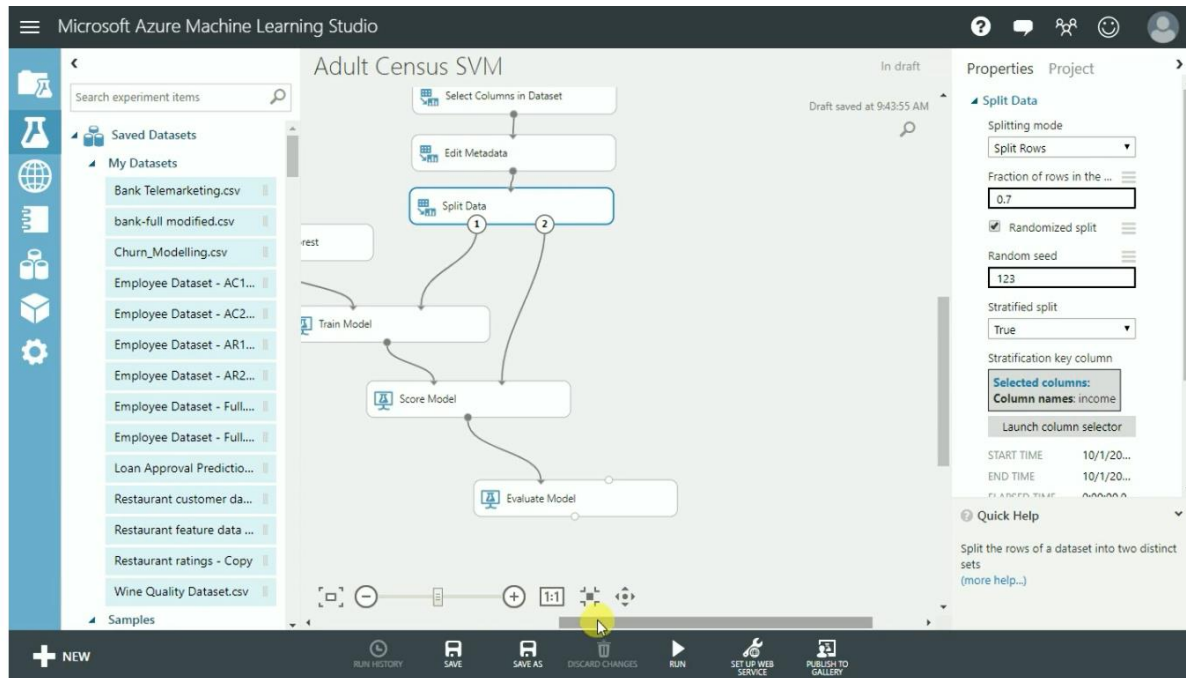
At the bottom, there is a '+ NEW' button and a URL bar showing 'studio.azureml.net/Home/.../8d21727945ea4f9fa5d1a5b92a85fb3b'. There are also 'DELETE' and 'ADD TO PROJECT' icons.



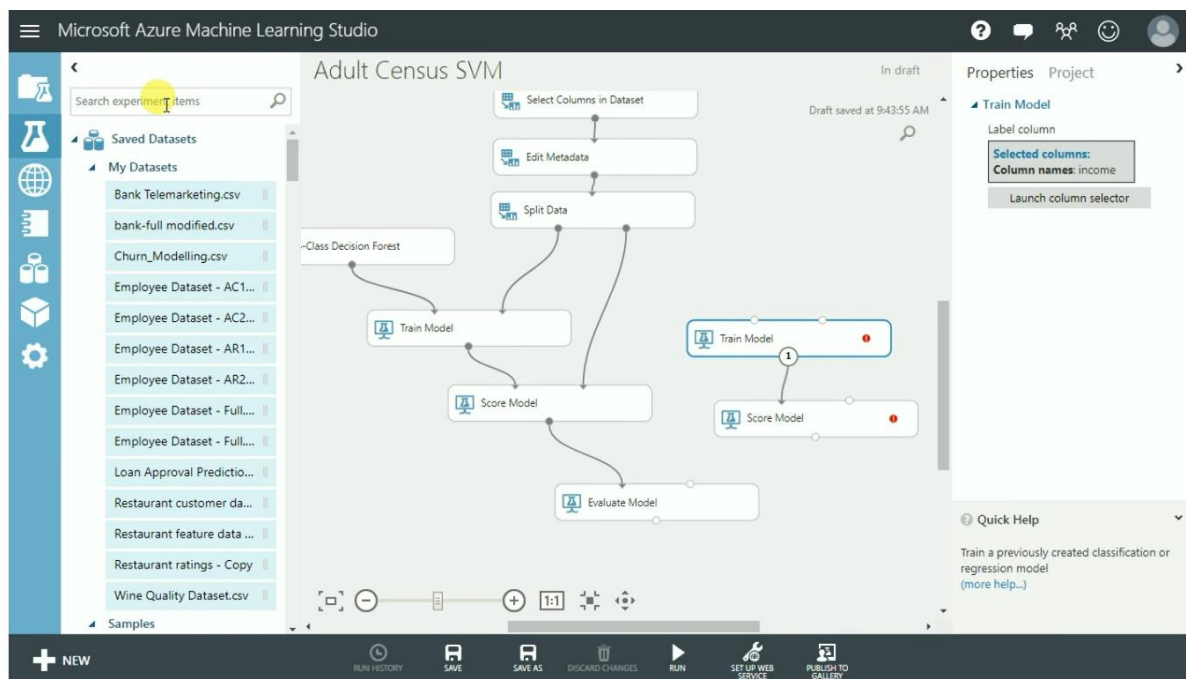
Click 'save as' icon in bottom and save with new name



Modify the existing model to support SVM

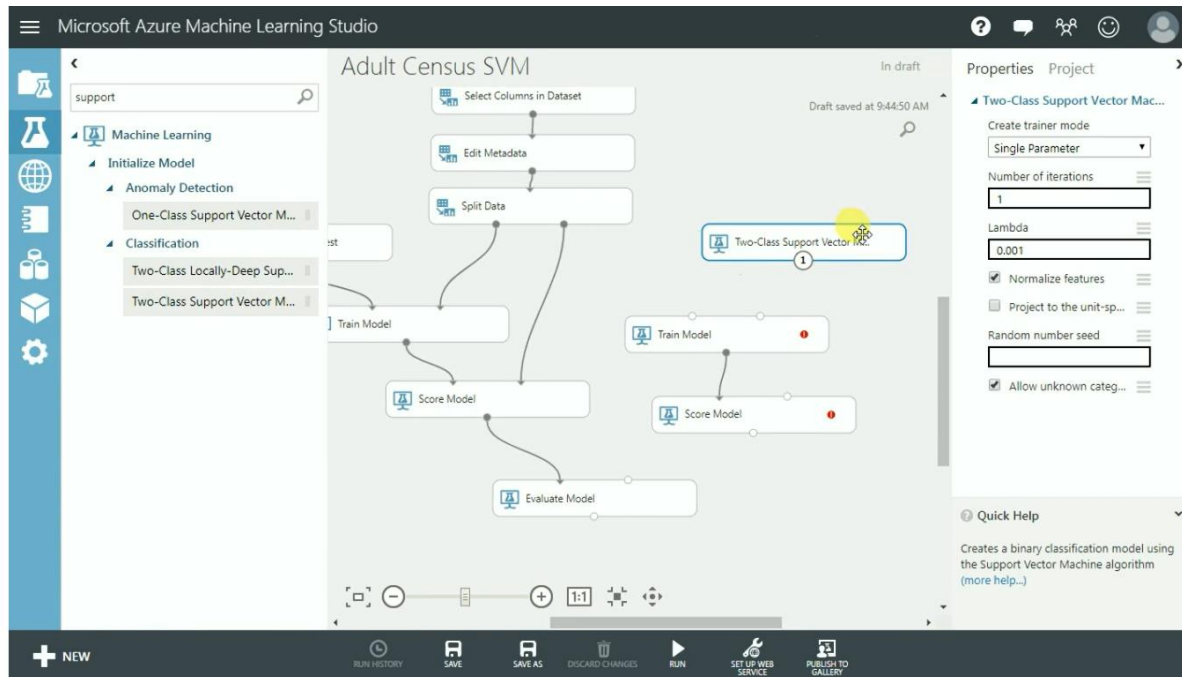


Copy and paste train and score model and place in order

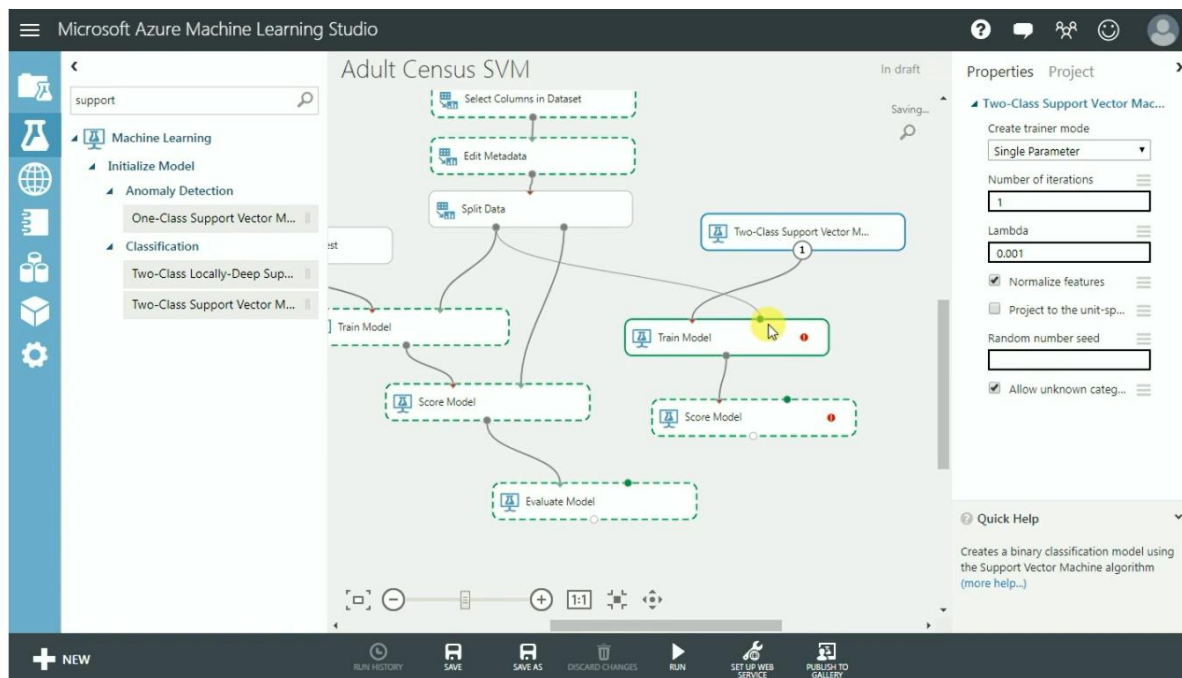


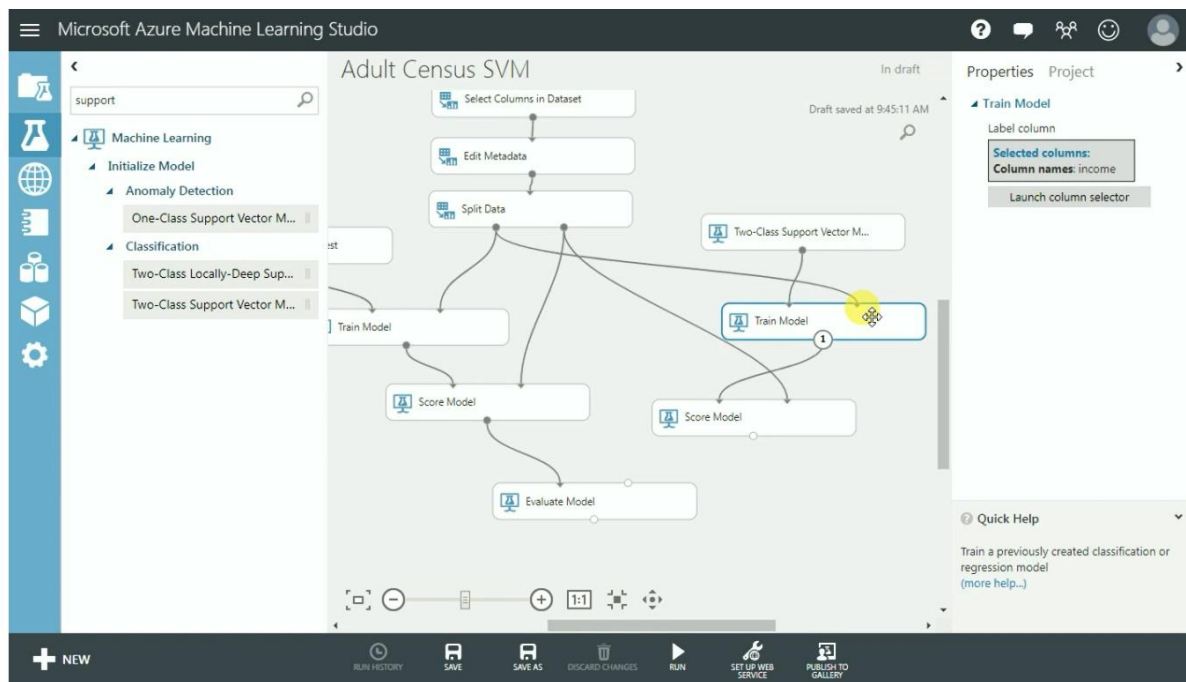
Two Class Support Vector Machine

Search for two class support vector machine and place in canvas

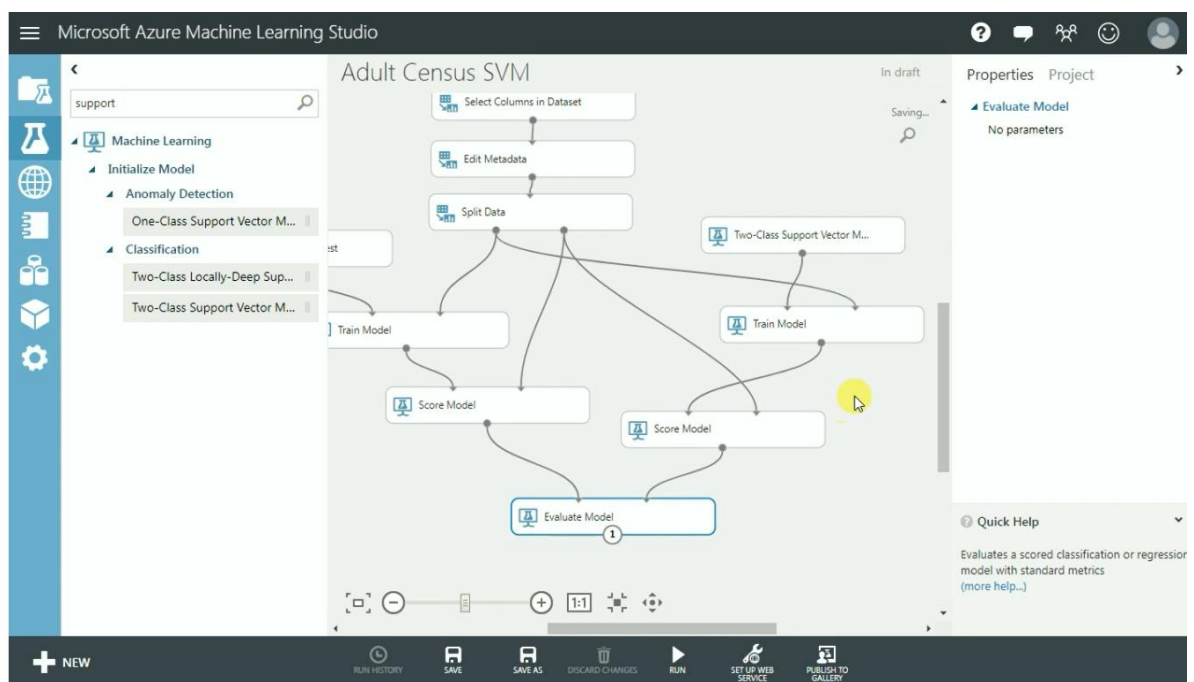


Connect the nodes as below



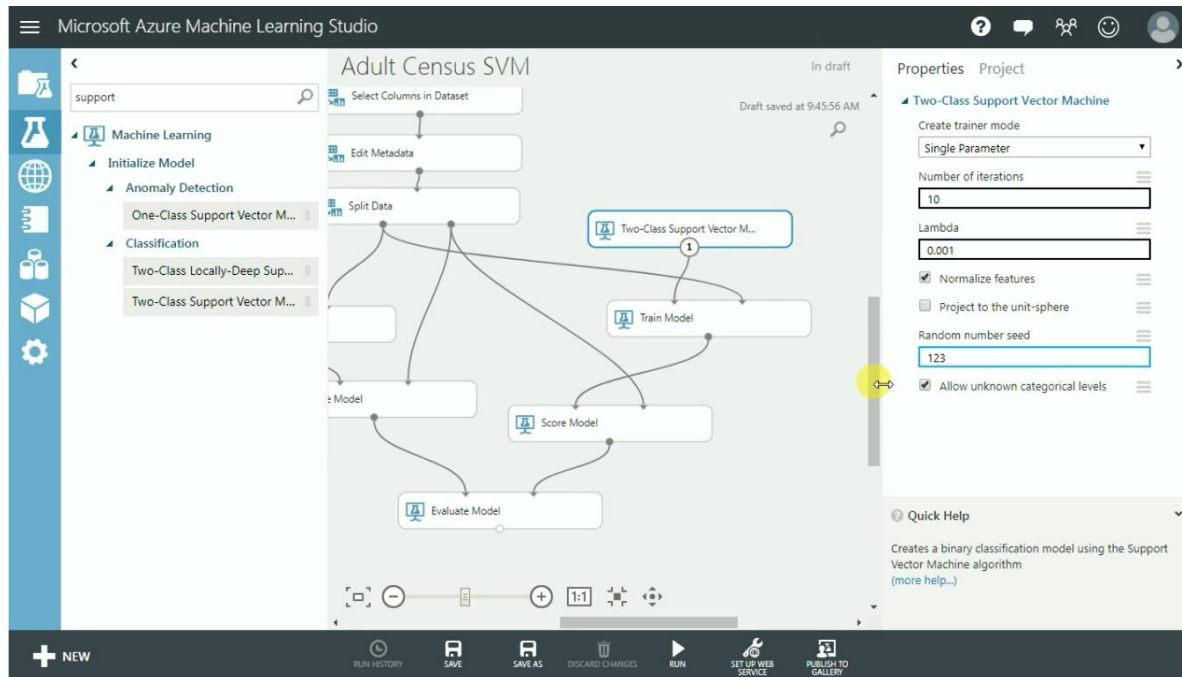


Connect score model to evaluate model now

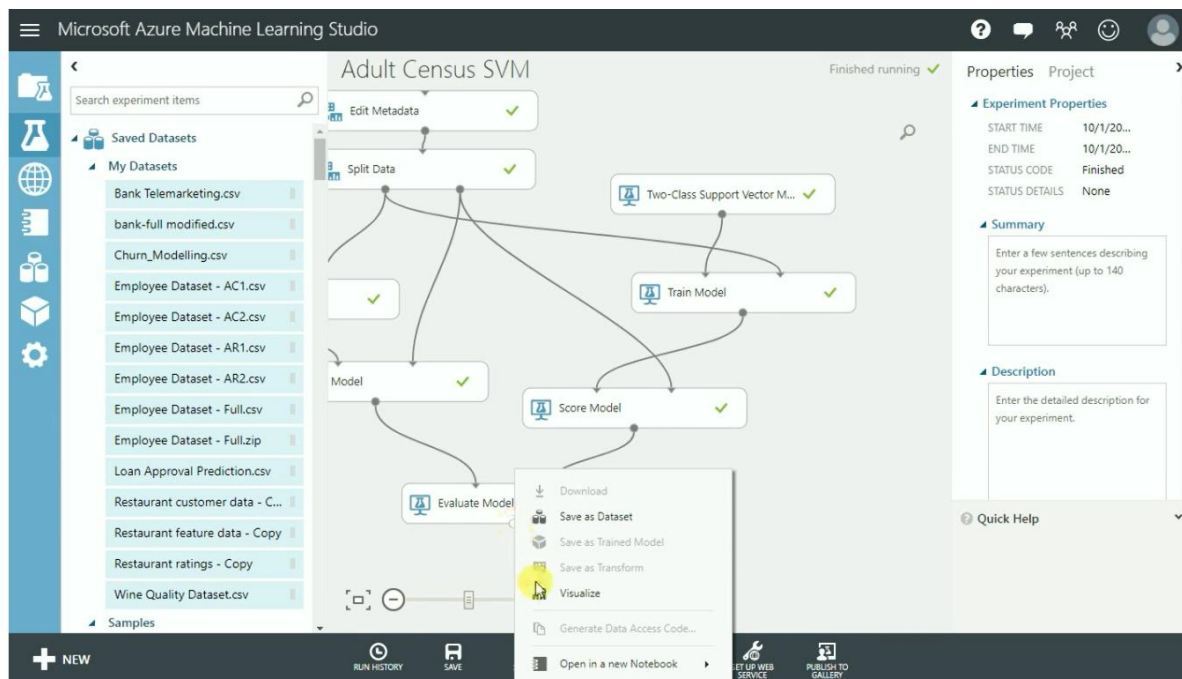


Required Parameters

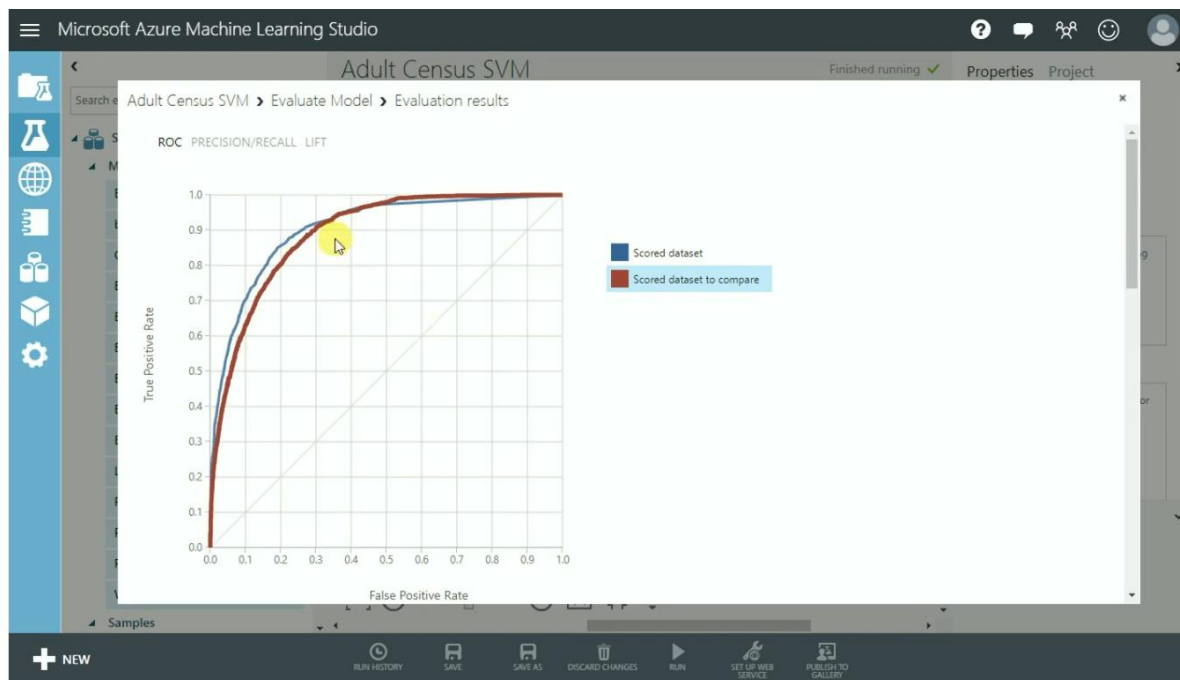
Click on Two class support vector machine and change required parameters



Run and visualize the result



Result



Can view accuracy is not that good, since this is applied where speed is important than accuracy

