

# Lab: Batch Scoring in DSX

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## Overview

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In this lab you will learn how to configure batch scoring in DSX.

## Required software, access, and files

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- To complete this lab, you will need access to a DSX Local cluster.
- You will also need to download and unzip this GitHub repository:  
[https://github.com/SidneyPhoon/DSX\\_Local\\_Workshop](https://github.com/SidneyPhoon/DSX_Local_Workshop)

## Part 1: Load the sample project and create model

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1. If you haven't already created a project from *DSX\_Local\_Workshop.zip* file, follow instructions for *Use Case 1* in this repository  
[https://github.com/SidneyPhoon/DSX\\_Local\\_Workshop](https://github.com/SidneyPhoon/DSX_Local_Workshop)
2. If you haven't run through the *TelcoChurn* notebook, run through it so that you generate a model. The easiest way to do this is to open the notebook, scroll down to **Step 10**, click on it, then in the menu select **Cell -> Run all above**.

Save the model in the repository. If you wish, you can change the model name.

```
[ ]: model_name="Telco Churn EL"
save(model=model, name=model_name, test_data=test, alg
```

Step 10: Deploy and Test model with UI

Navigate to the **Assets** view and make sure that the model has been created. Your model may have a different name and version.



## Part 2: Configure batch scoring of a model


1. Click on the ellipses next to the model and select **Batch Score**.
2. Fill out the required fields:
  - Input data set: *new\_customer\_churn\_data.csv* (this data set contains data that should be scored)
  - Output data set: *ScoringResults.csv*. Make sure to provide **.csv** extension – otherwise you won't be able to preview and download the output.

Batch scoring script inputs

Execution Type *	DSX
Input data set *	new_customer_churn_data.csv
Output data set *	ScoringResults.csv

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3. Click on **Advanced Settings** and change the file name to *ScoreTelcoCustomers*. Click **Save**.

 Advanced settings

### Advanced settings

File name *	ScoreTelcoCustomers
File extension *	.py
Job name *	TelcoChurnMLmodel-1516302490534

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- Click **Generate Batch Script**. Then click **Run now** and wait till the status changes to *Success*.

RESULT

**Success**

- Navigate to the **Assets** view of the project. Scroll down to **Data Sets**. You should see the generated ScoringResults.csv file.

Data Sets

view all (8)

add data set

NAME	TYPE	SIZE	LAST MODIFIED	DATA SOURCE
ScoringResults	CSV	2.94 KB	12-20-2017	Local File

- You can choose to preview or download the file (click on the ellipses). The scoring results are the last few columns: *rawPrediction*, *probability*, *prediction*, *predictedLabel*.

Preview - ScoringResults.csv

	rawPrediction	probability	prediction	predictedLabel
3,0.0,40.49,1.0]	[4.37364611538,15.6263538846]	[0.218682305769,0.781317694231]	1.0	T
1.0,15.02,2.0]	[14.9838754954,5.01612450462]	[0.749193774769,0.250806225231]	0.0	F
3,0.0,73.81,3.0]	[16.4739854053,3.52601459468]	[0.823699270266,0.176300729734]	0.0	F
2.42,2.0]	[18.7801048665,1.2198951335]	[0.939005243325,0.0609947566751]	0.0	F
3,0.0,62.87,1.0]	[2.83702310032,17.1629768997]	[0.141851155016,0.858148844984]	1.0	T
0.0,47.99,4.0]	[19.1259620083,0.874037991729]	[0.956298100414,0.0437018995864]	0.0	F

Close

So far we have generated the batch job script and made sure that it works by running it interactively. Now we can schedule a batch job.

## Schedule a Batch Job to Run Generated Script

7. In the Project view scroll down to **Scripts** and click **Create Job** next to the script we created in previous steps.
8. On the **Create Job** screen provide *Job name* and make sure to select the right **Worker** (*Python 2.x or 3.x*) environment (check comments in the notebook or check with the instructor). Scroll down and select either "on demand" or a specific time. Click **Create**.

Create Job

Name \*

TelcoChurnBatchJob

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Description

Job description

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Worker \*

DSX Machine Learning with Python 2.7 with Anaconda

▼

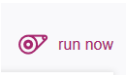
Type \*

Batch scoring

Source asset \*

/scripts/ScoreTelcoCustomers.py

9. In the **Batch Job Details** view scroll down and select **Run Now**.



10. Provide Run name and click **Run**.

Run TelcoChurnBatchJob


Name \*

Test1

11. Job status is displayed. Wait till status is "Success".

12.Navigate back to the Project view, and scroll down to **data sets**. Each batch job run overwrites the previous output file.

Data Sets [view all \(9\)](#)

NAME	TYPE	SIZE	LAST MODIFIED
 ScoringResults	CSV	2.22 KB	01-18-2018

13.If you want to make sure that the file was updated, open the *RunSystemCommands* notebook and run the commands (check the timestamp on *ScoringResults.csv*).

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You have finished working on **Batch Scoring in DSX lab**.