Lab: PMML in DSX

January 15th, 2018

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Overview

In this lab you will learn how to import PMML files into DSX and configure them for scoring.

Required software, access, and files

- 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/elenalowery/DSX_Local_Workshop

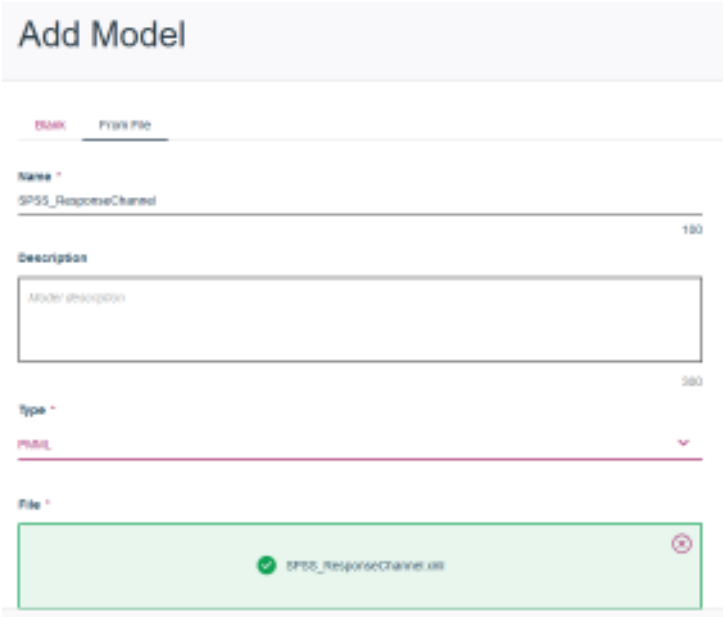
Part 1: Load and Deploy PMML model

1. Navigate to the **DSX_Local_Workshop** project that you imported during one of the previous labs (your project name may be different).

2. Switch to the **Assets** tab. Scroll to **Models** and click **add model**. Select **From File**. Provide *model name* and select model type *PMML*.

3. Click **Browse**. Navigate to the *PMML/PMML files* folder of the unzipped GitHub repository and select *SPSS_ResponseChannel.xml*. Click **Create**.

Note: this PMML file was generated from a model created in SPSS Modeler. It predicts the recommended marketing channel (direct mail, mobile, e-mail) for a customer.



4. Click the **Publish** tab.

Provide *Published name* (make it unique, for example, add your initials) and select the scope for the project (you can publish to the same project as the model). Click **Publish**.

*Note: If **Publish** throws an error, then navigate to **Project Details**, scroll down to Models and select **Publish** next to the imported PMML.*

5. Switch to **Model Management** view (from the main menu in the top left corner) and select the **Models** tab. Click on the model to bring up the model details view.

6. In the model details view, scroll down and click **Deploy**. Provide deployment name (make it unique) and click **Create**.

7. The endpoint URL can be used by other applications to invoke scoring.

8. Next, we will test the model with a notebook. Navigate to the **Projects** view and open the *PMMLTestClient.ipynb* notebook.

   Note: if you would like to use the Test UI, you can use the following values (don't provide quotes for the strings).


```
"Customer ID":10150,
"Gender":"F",
"Affinity":"Womens Sportwear",
"Annual Spend":411.354000,
"Loyalty Program Member":"NO",
"Response Channel":"Mobile",
"CLV":41135.400000,
"Anastasia Beverly Hills":"F",
"Discount of Womens Active Shoes":"F",
"Dress sale - 30 percent off":"F",
"Home Closeout":"F",
"Johnston and Murphy":"F",
"Lancome Gift with Purchase":"F",
"Shoe and Handbag sale":"F",
"Free shipping on orders over $49":"F",
"Save 10% with store pickup":"T",
"Womens Sweather Sale":"T",
"Save 20% Career Suits":"T"
```


9. While we went through the Publish/Deploy process, in the notebook we are using the "internal endpoint" which doesn't require authentication. We provided this example because it's easier to set up in a demo.

   The prediction for the provided values is "Mobile" channel.


```
{"success":true,"description":"Success","object":{"fields":["Lancome Gift with Purchase","Shoe and Handbag sale","Affinity","Save 10% with store pickup","Home Closeout","Save 20% Career Suits","Discount of Womens Activ
e Shoes","Free shipping on orders over $49","Loyalty Program Member","Johnston and Murphy","Anastasia Beverly Hills","Gender","Annual Spend","Dress sale - 30 percent off","Womens Sweather Sale","Response Channel"],"rec
ords":[["F","F","Womens Sportwear","F","F","F","F","F","NO","F","F","F",411.354,"F","F","Mobile"]]}}
1. M
2. o
3. b
4. i
5. l
6. e
```


   If you wish, you can change input data to the following:

```
12582,"M","Mens
    Sportswear",256.014000,"NO","Email",25601.400000,"T","T","F","F","F","F","T","T","F","T","F"
```

   Then the prediction is to contact the customer via direct mail.


```
{
  "fields": ["Lancome Gift with Purchase", "Shoe and Handbag sale", "Affinity", "Save 10% with store pickup", "Home Closeout",
49", "Loyalty Program Member", "Johnston and Murphy", "Anastasia Beverly Hills", "Gender", "Annual Spend", "Dress sale - 30 pe
  "records": [["F", "T", "Mens Sportswear", "F", "F", "F", "T", "T", "NO", "F", "T", "M", 256.014, "F", "T", "Direct Mail"]]
}
```


You have finished PMML in DSX Local lab.