Lab 3: Modeler Flows

You can create a machine learning flow, which is a graphical representation of a data model, or a deep learning flow, which is a graphical representation of a neural network design, by using the **Flow Editor**. Use it to prepare or shape data, train or deploy a model, or transform data and export it back to a database table or file in IBM Cloud Object Storage.

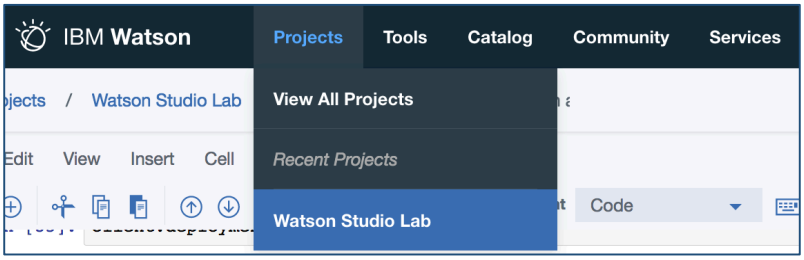
Prerequisites

To use the Flow Editor, you must have the following services:

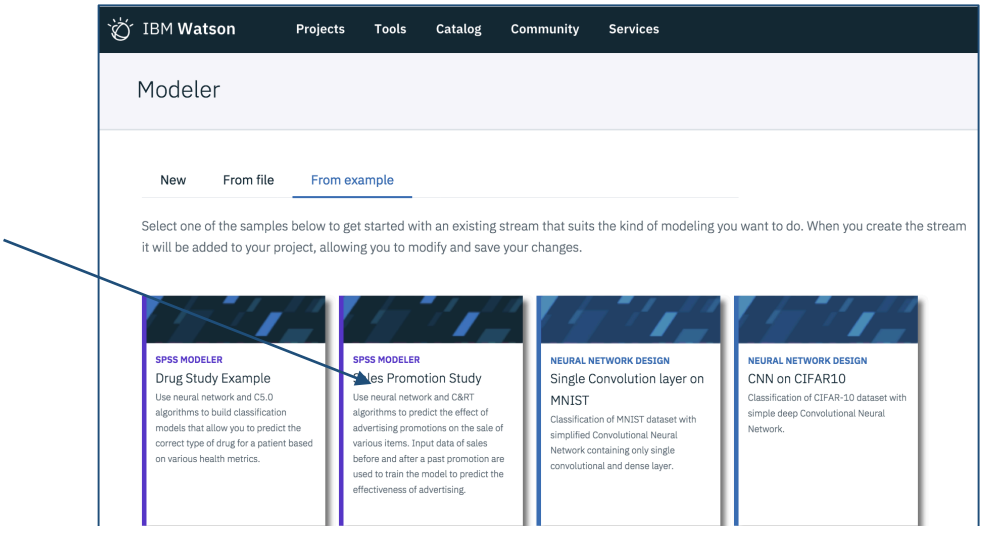
- A Spark instance
- An IBM Cloud Object Storage instance
- An IBM Watson Machine Learning instance

If you completed the first two labs (Model Builder and Notebooks) – then you are ready to begin.
If you have not – refer to the Services Setup document in the Git repo:
https://github.com/lindsaywithers/watson-studio

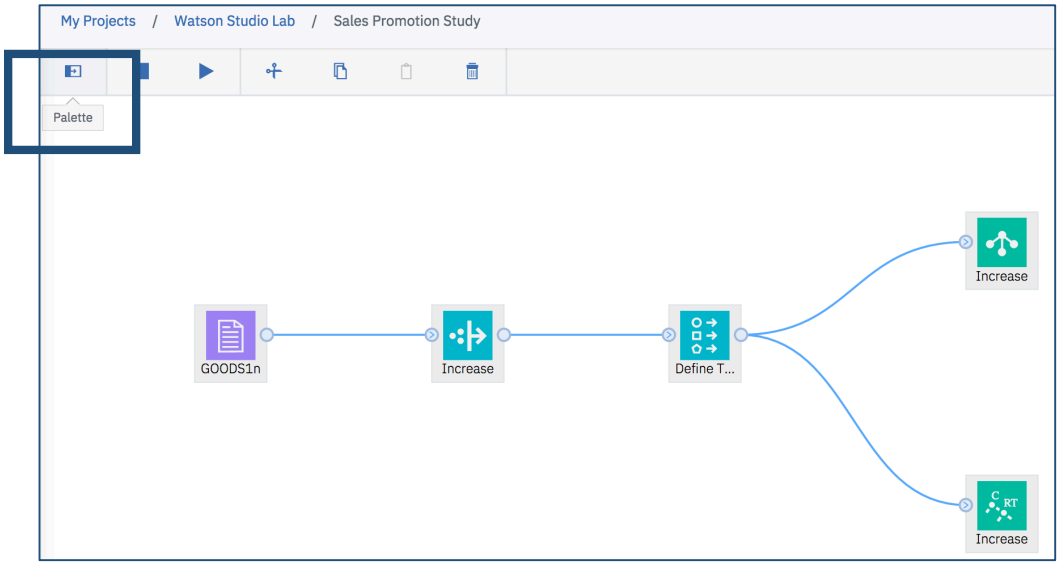
- Open your Watson Studio Lab project (**FYI: by clicking the Projects drop-down from the menu tab across the top in Watson Studio, you can return to any project**)



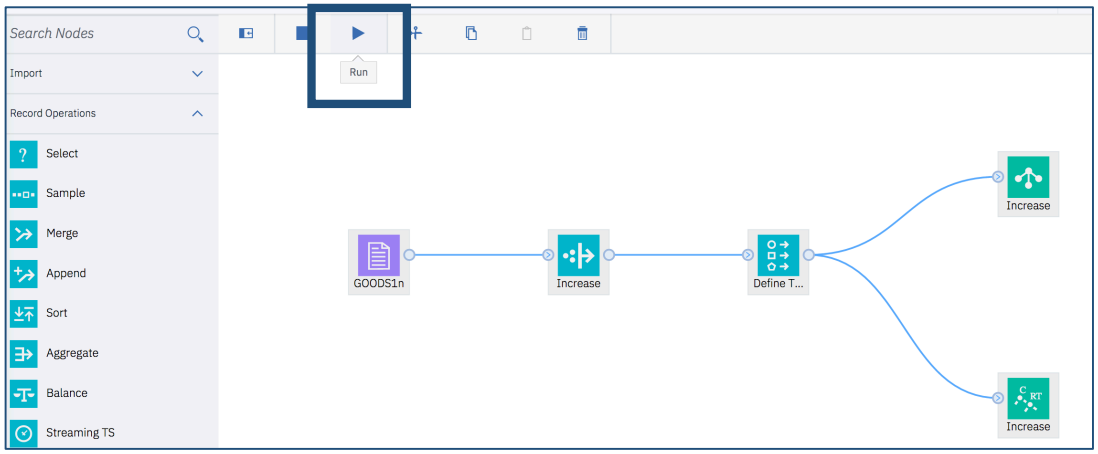
- From the toolbar for the project, click **Add to project**, and then click **Modeler flow**.
  - **Notice** the option to create a modeler flow using SPSS or SparkML nodes, OR you can use the Neural Network Modeler to create a deep learning flow
  - For this lab, let's grab a sample flow to analyze. Move to the **From example** tab and select the **Sales Promotion Study** flow and click **Create**



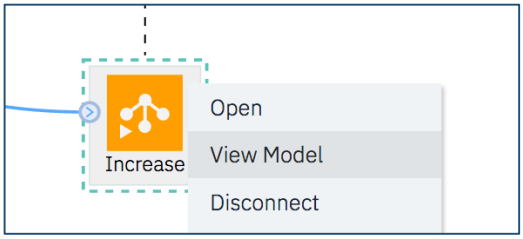
- Open the palette to explore the nodes available to you



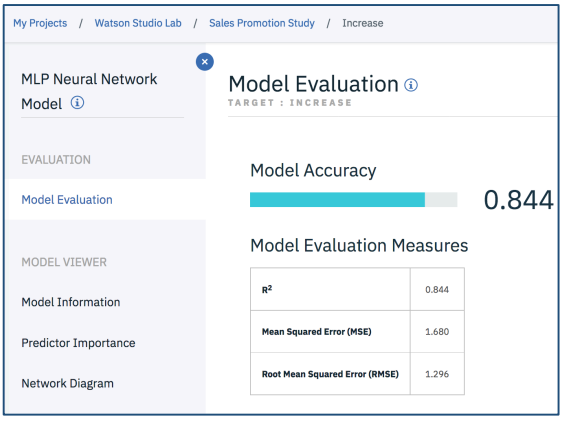
- When you're ready, click the play button to run the flow



- Once the run is complete – you'll notice the yellow 'nugget' nodes appear with the model results. Let's view our model:
    - Hover your mouse over one of the nugget nodes (models)
    - Click the three dots to open the menu
    - Click **'View Model'**



    - Here, you have a view of the model accuracy, and can click thru to view other things such as predictor importance



- Return to the canvas by clicking **Sales Promotion Study** in the navigation at the top
- Double click the model node to save it, or download the stream with the download button