Watson Machine Learning Overview

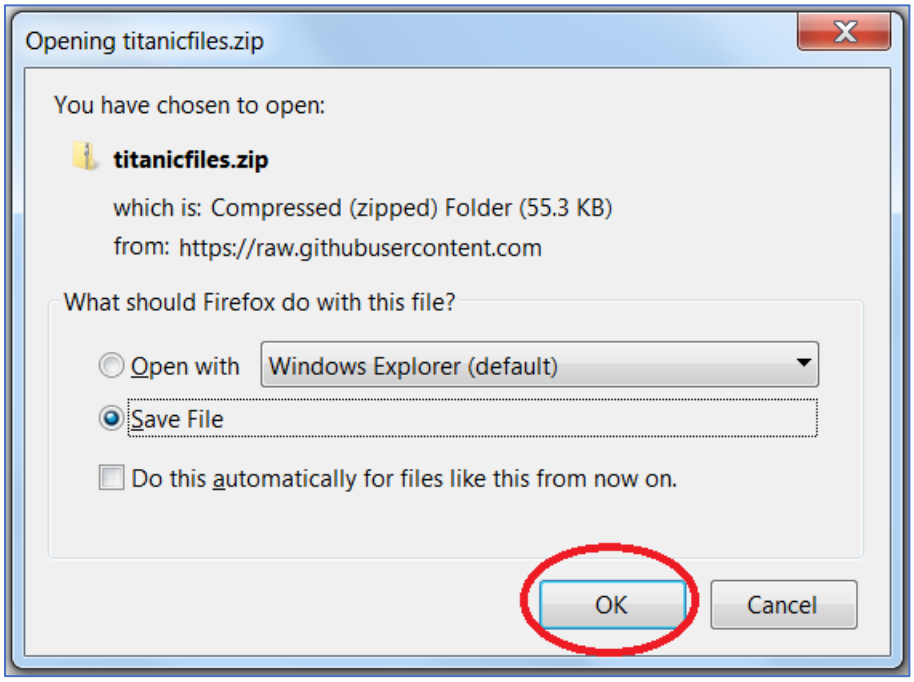
This lab will introduce the Watson Machine Learning capability using the Titanic dataset. The lab will consist of the following steps:

1. Adding a data asset to the DSXL project
2. Creating a Model to predict whether a person would survive
3. Testing the Model

Step 1: Adding a Data Asset to the project

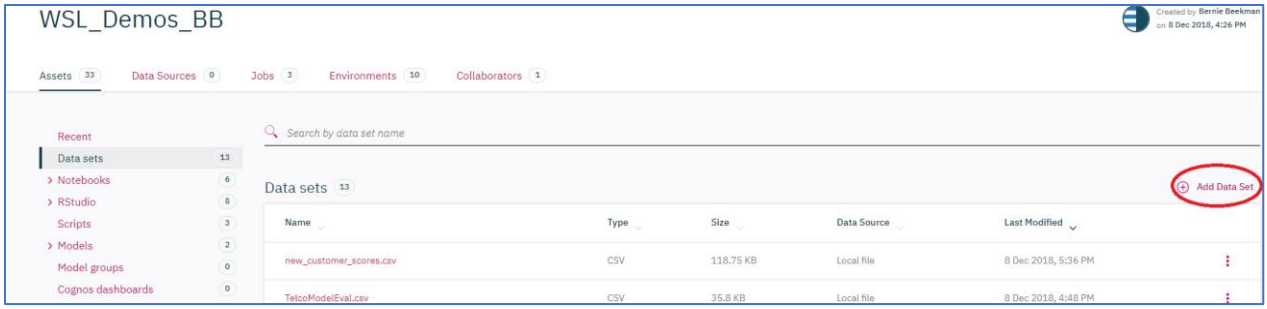
1. Download the Titanic data file from the following location by clicking on the link Titanic Data and following the instructions below.

2. Click on the **OK** button in the pop-up dialog.

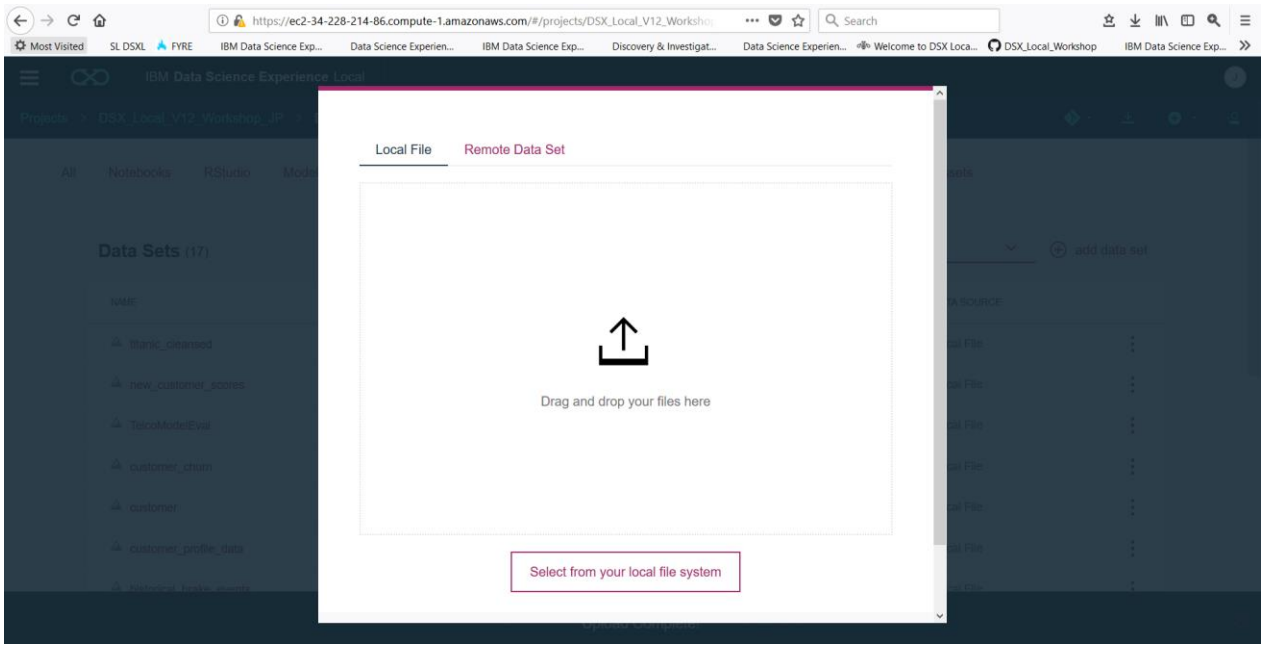


3. Navigate to the directory where the file has been downloaded. Unzip the titanicfiles.zip file. There should be three files (1) titanic_cleansed.csv, (2) titanic.csv, and (3) titanicr.csv. You will use the **titanic_cleansed.csv** for this lab.

4. In your Watson Studio Local project go to **Data Sets** and select **add data set**

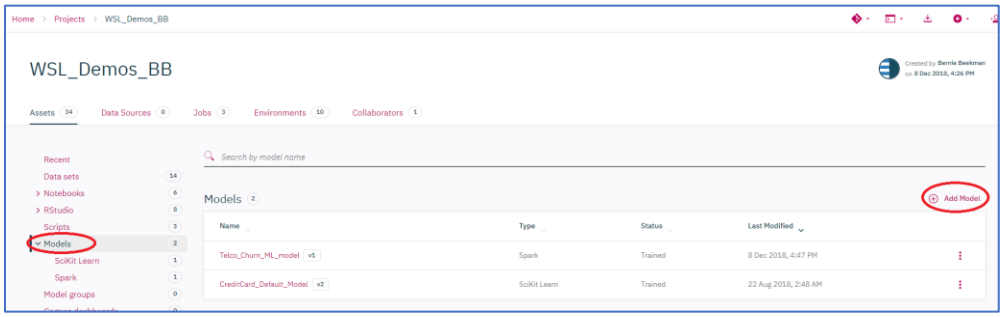


5. **Browse** or drag the **titanic_cleansed.csv** file

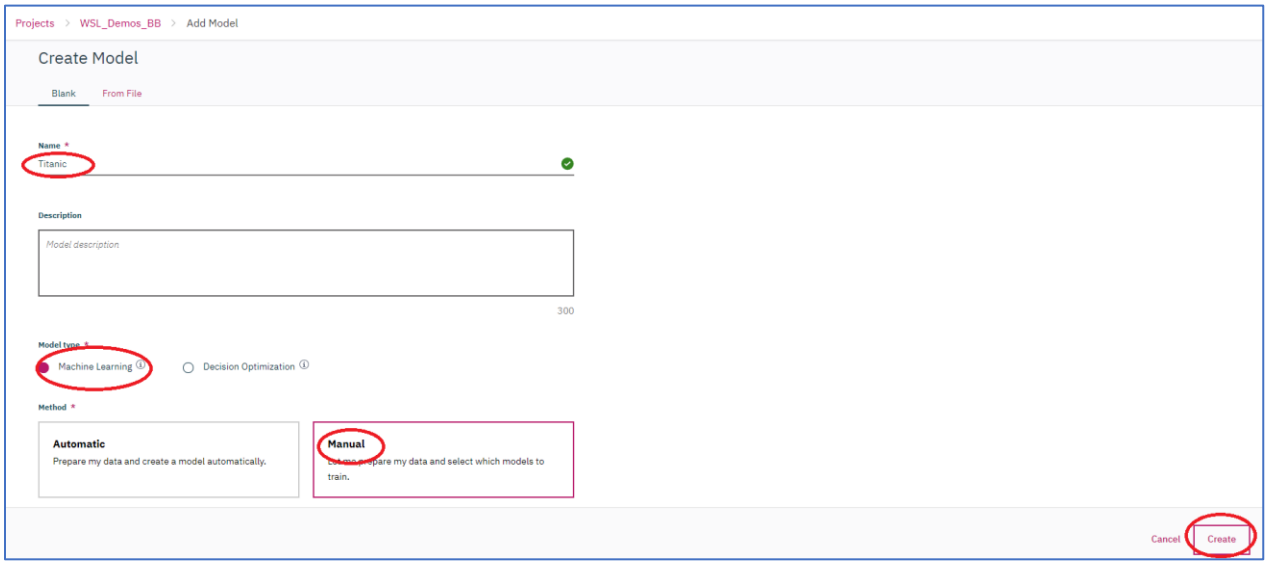


Step 2: Create a Model to predict survival

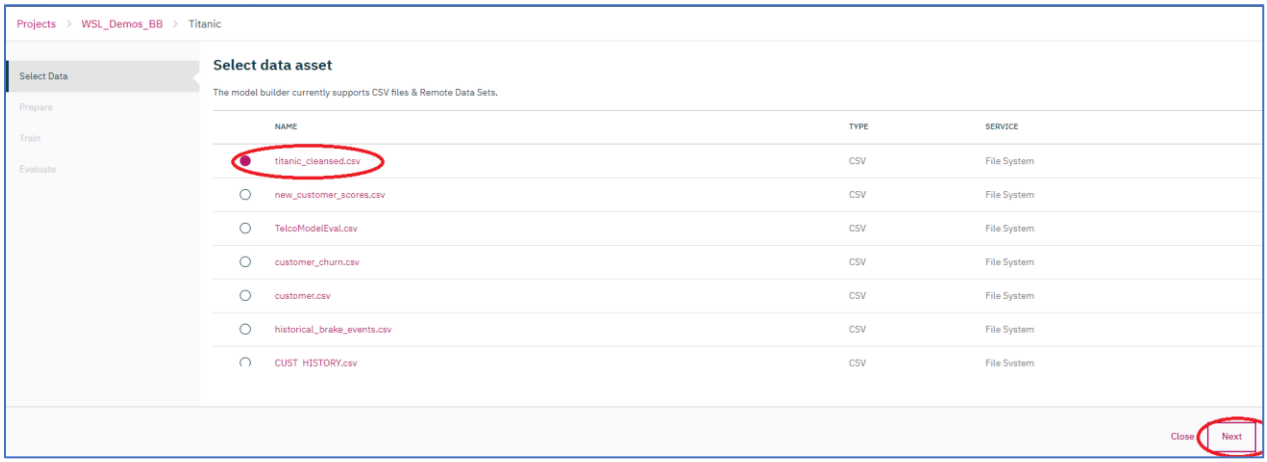
1. Select the **Models** link and **Add Model**.



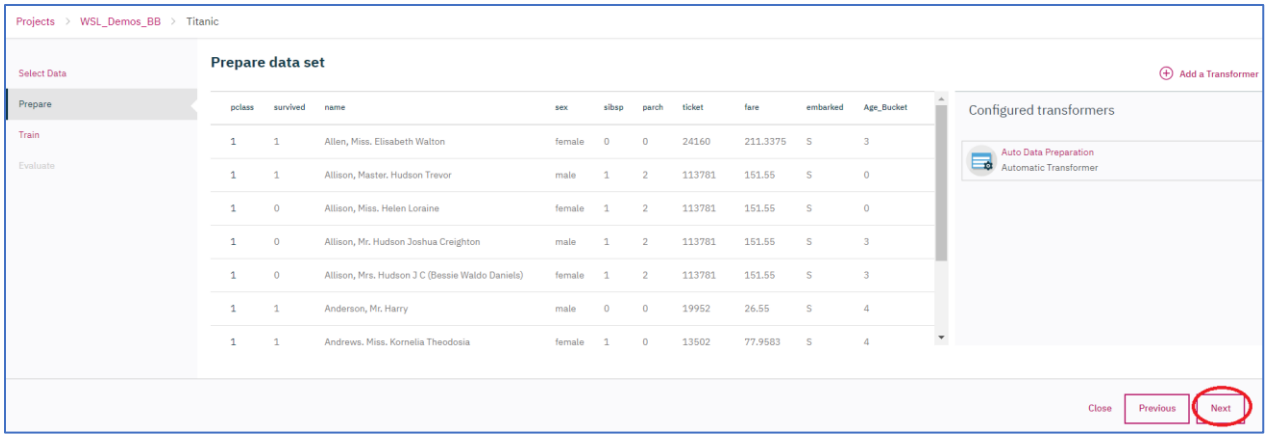
3. Enter a model **Name** (eg Titanic), optionally a **Description**, select **model type** of **Machine Learning** and select **Method** of **Manual**. Click on **Create**.



4. Click on the **titanic_cleansed.csv** and click on **Next**

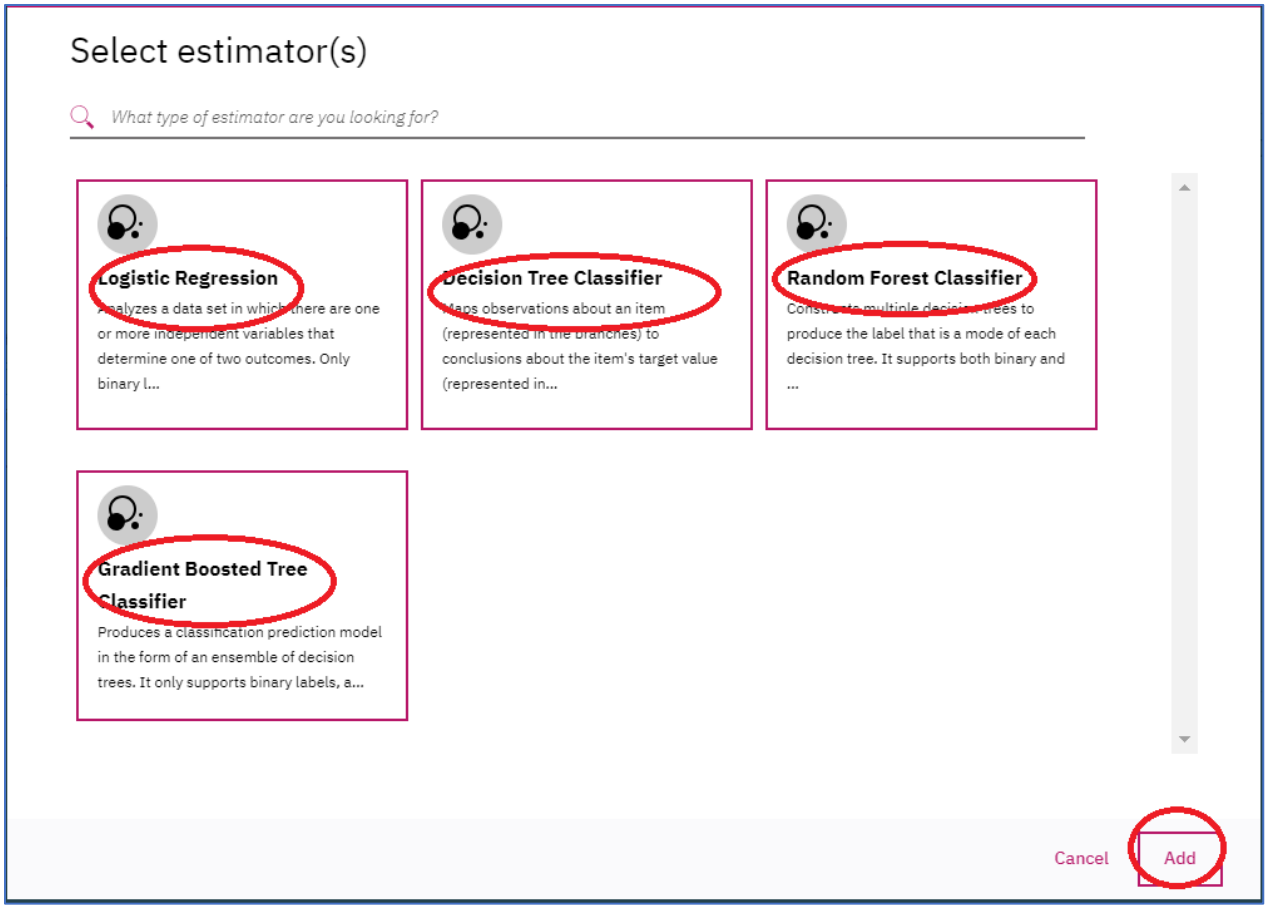


5. Select **Add a transformer** to see all available transformers. **Cancel** and use the configured **Auto Data Preparation** transformer. Select **Next.**



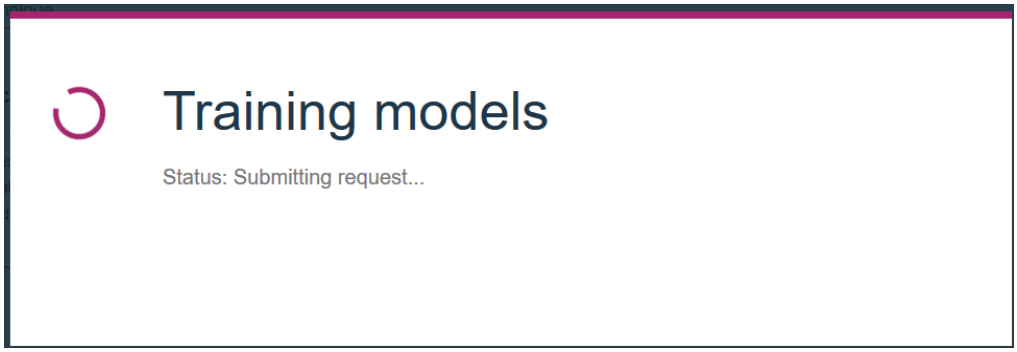
6. Select **Label Column** to **survived**. This will automatically set **Suggested technique** to Binary Classification.

7. Select **Add Estimators.** Select all estimators and select **Add.**

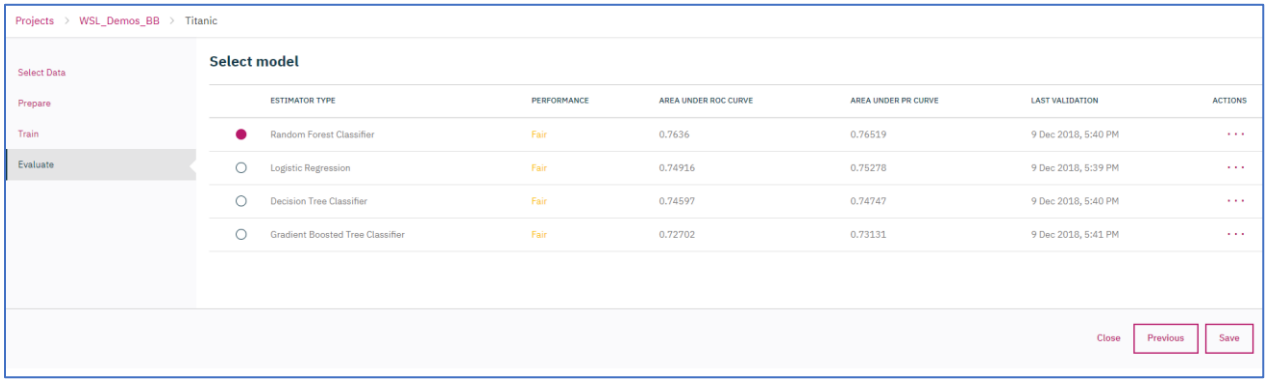


8. Select **Next.**

9. Wait for all models to be trained



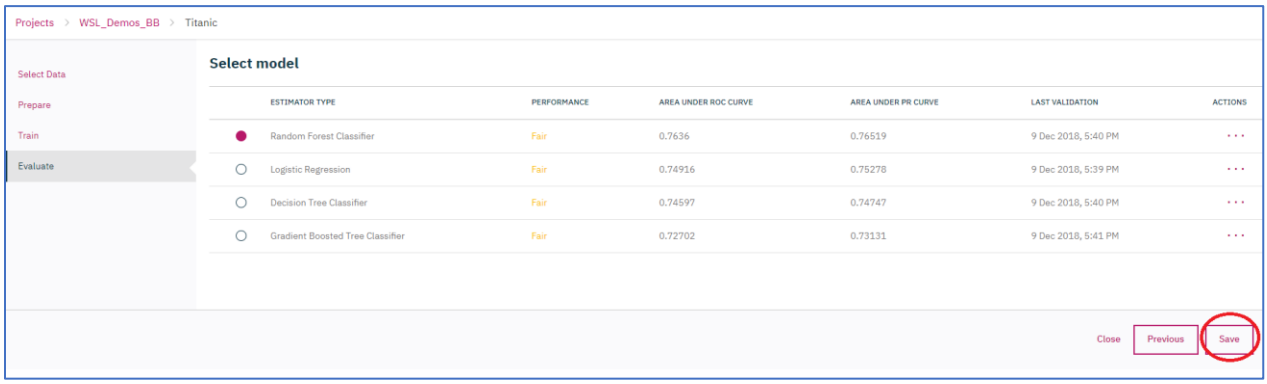
10. Review model performance. Models are ranked from best to worst performing.



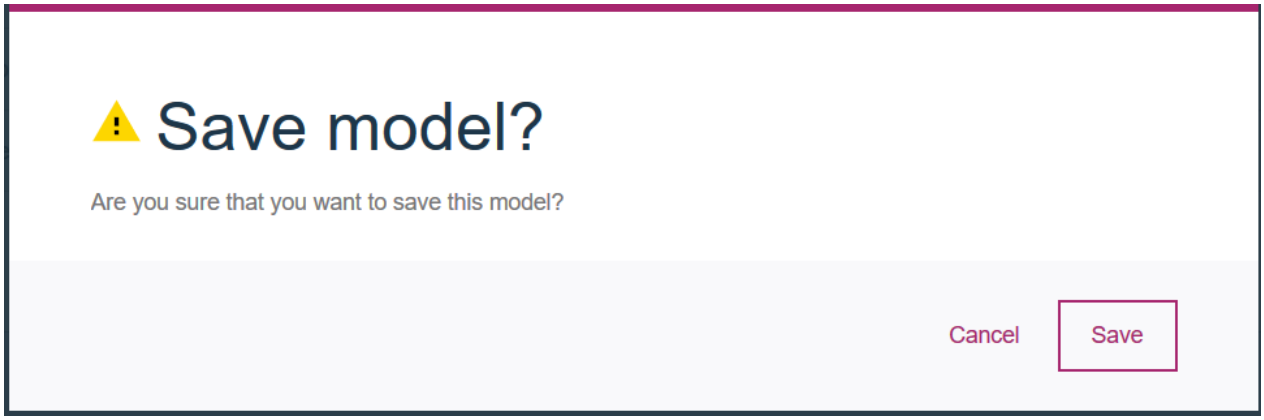
Step 3: Saving and Testing a Model

We can deploy the model to enable applications to invoke it via an API call. This is a Web Service deployment or Online deployment.

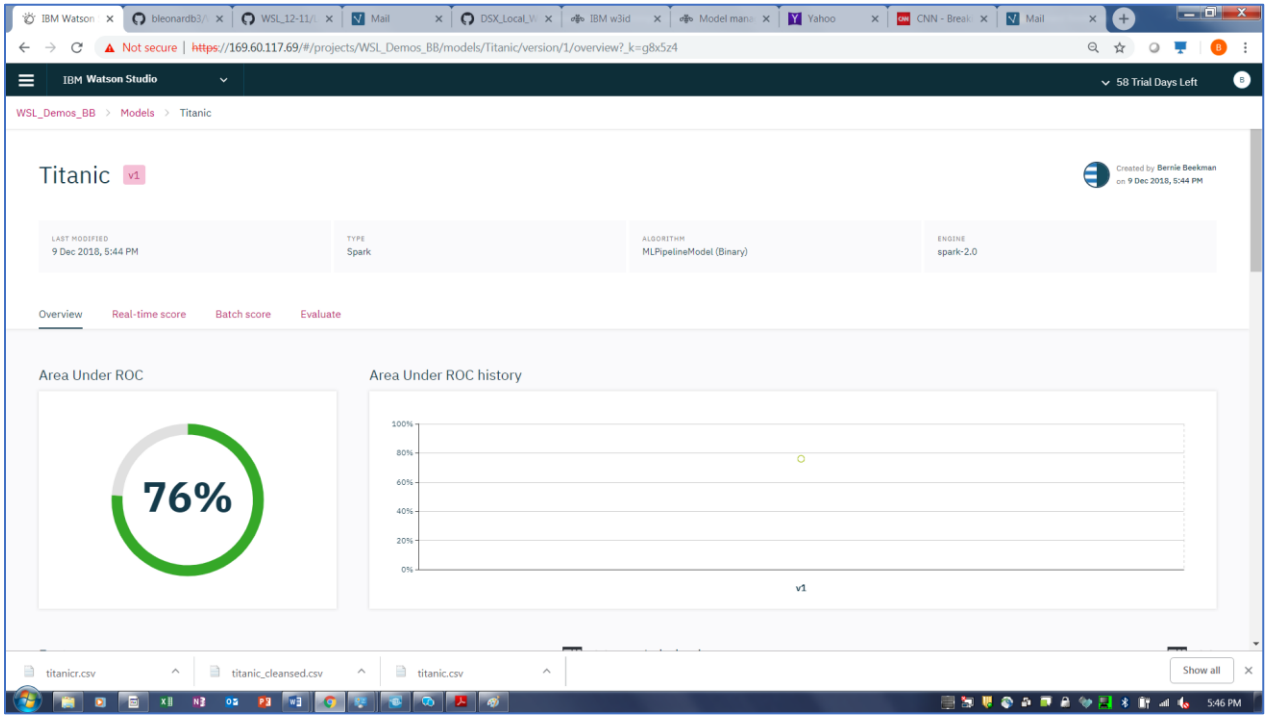
1. Select the **Save** button for the model you wish to deploy



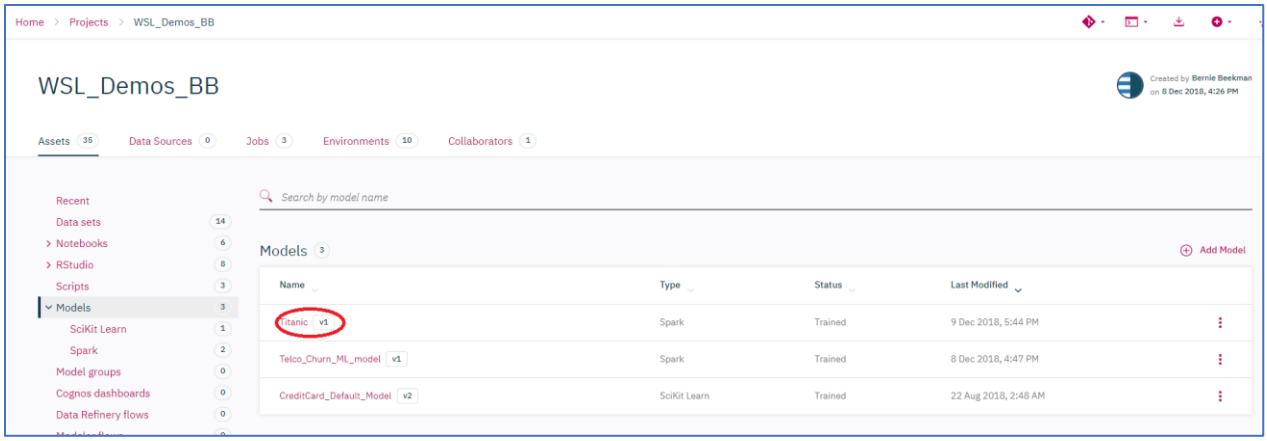
2. Confirm the save.



3. The model is saved, and a view of the model is displayed.



4. The Titanic model now appears in the list of models.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