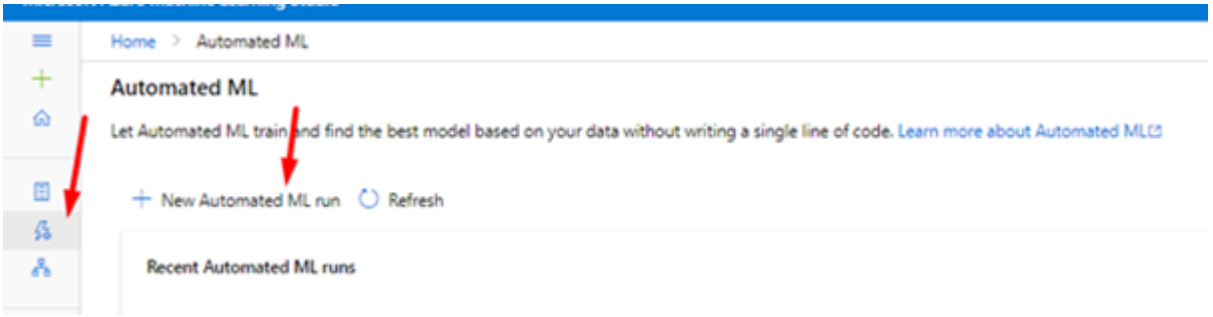
Azure Machin learning practice 1:

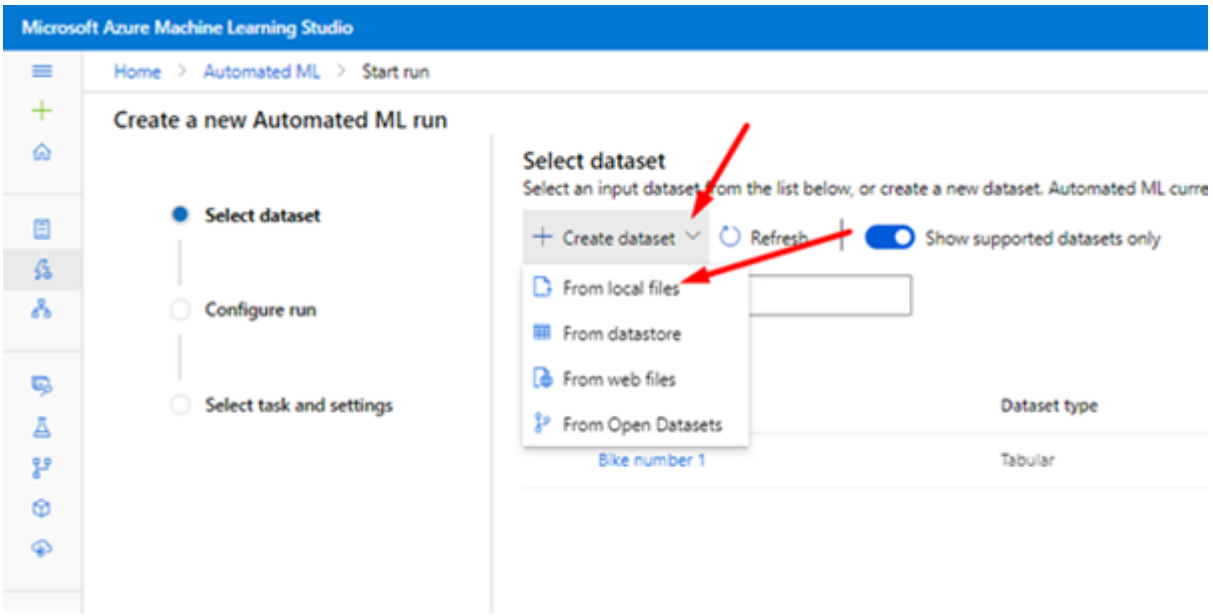
Time series forecasting:

1. At first, need to sign in the ml.azure.com and must select a workspace.

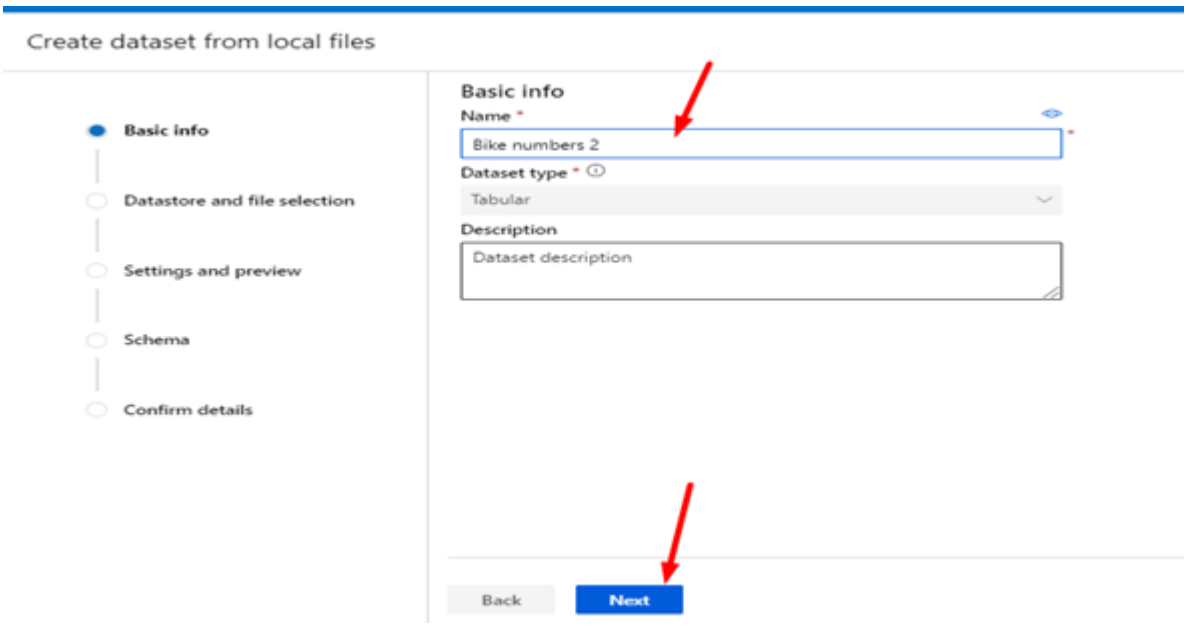
2. Then need to select Automated ML and then must select New Automated ML run



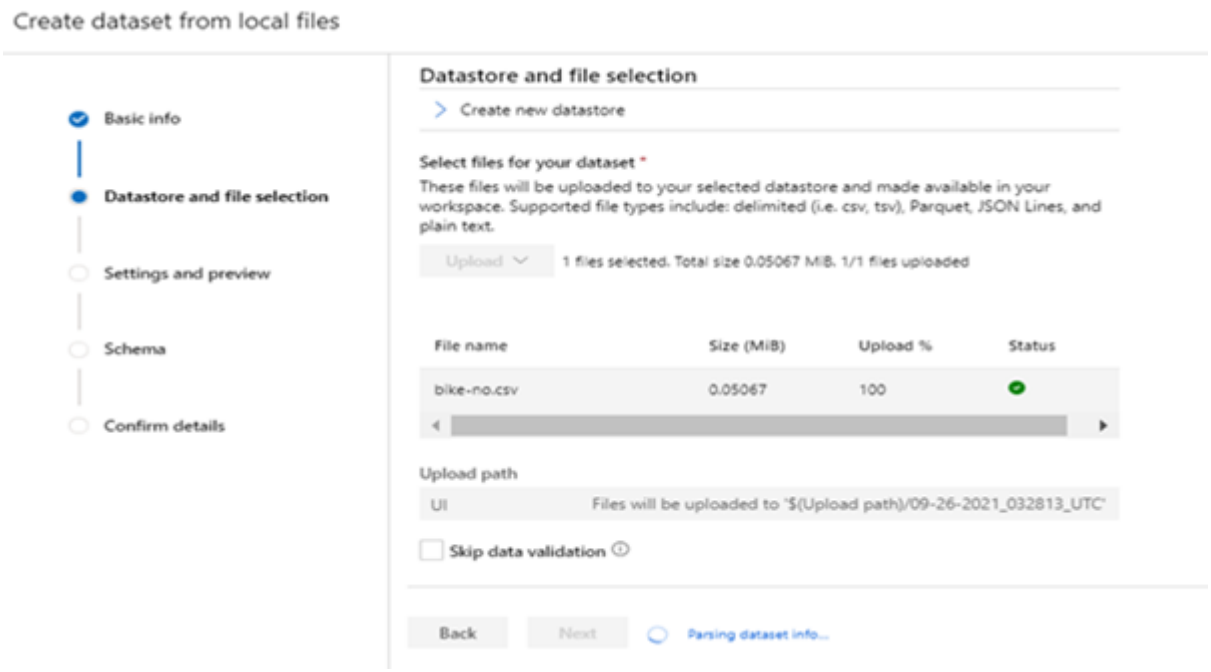
3. select create dataset + local files



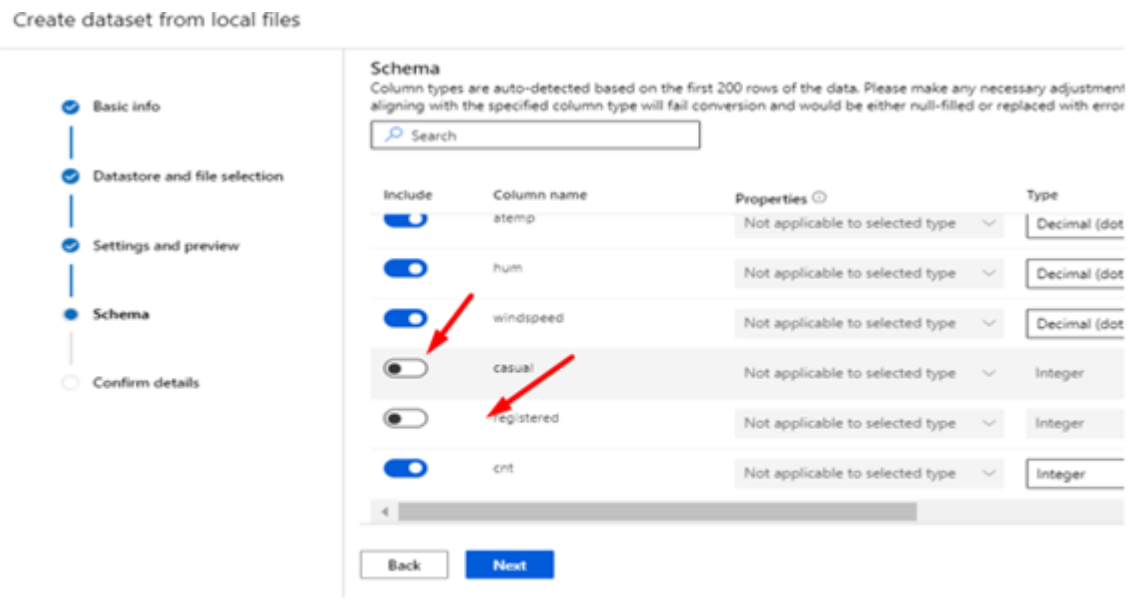
4. Need to set a unique name + next



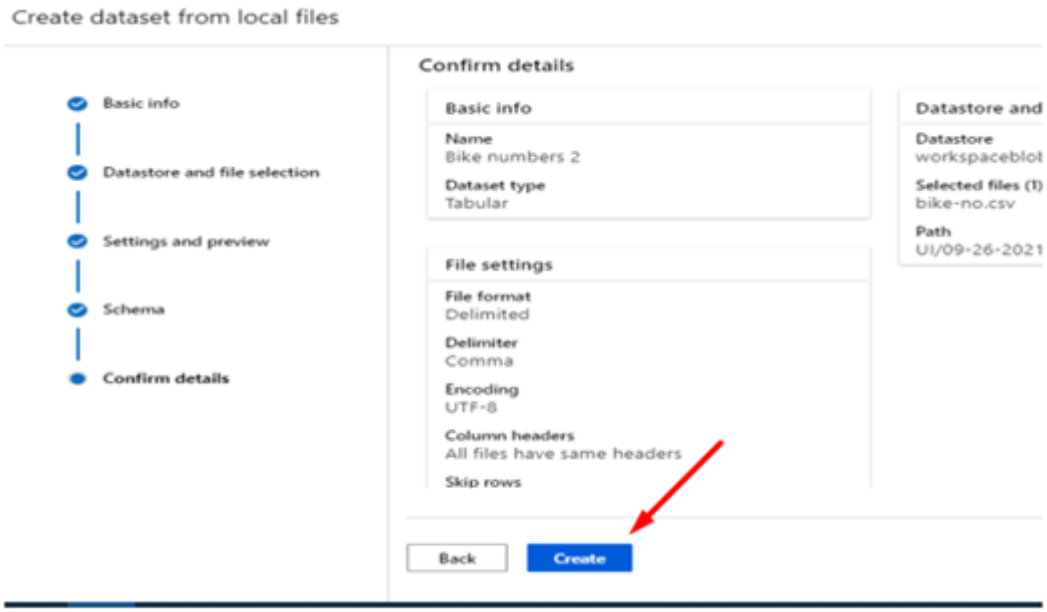
5. Select upload + upload file + next



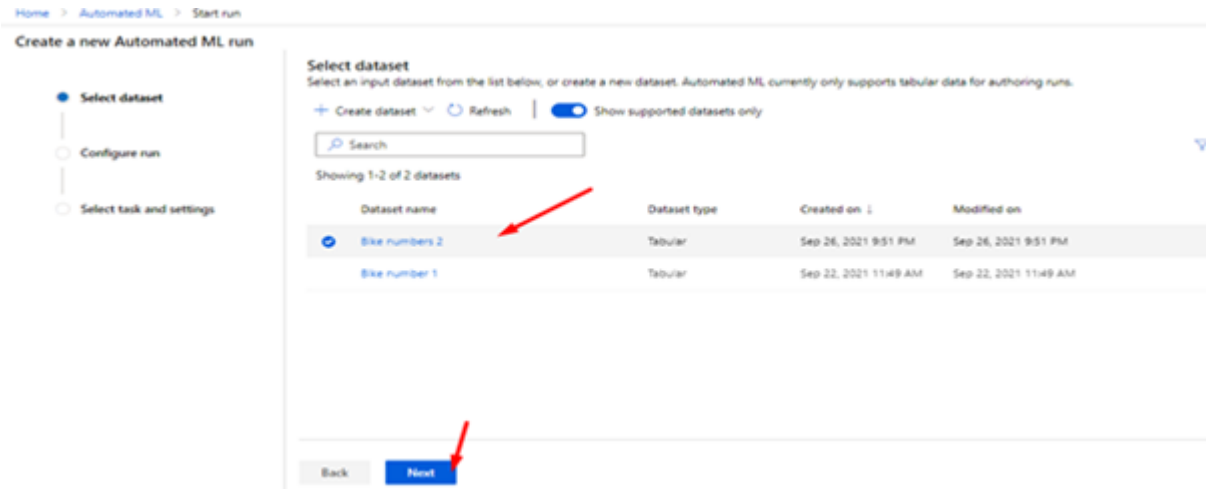
6. At the schema section we stop an instant, casual, and registered section + next



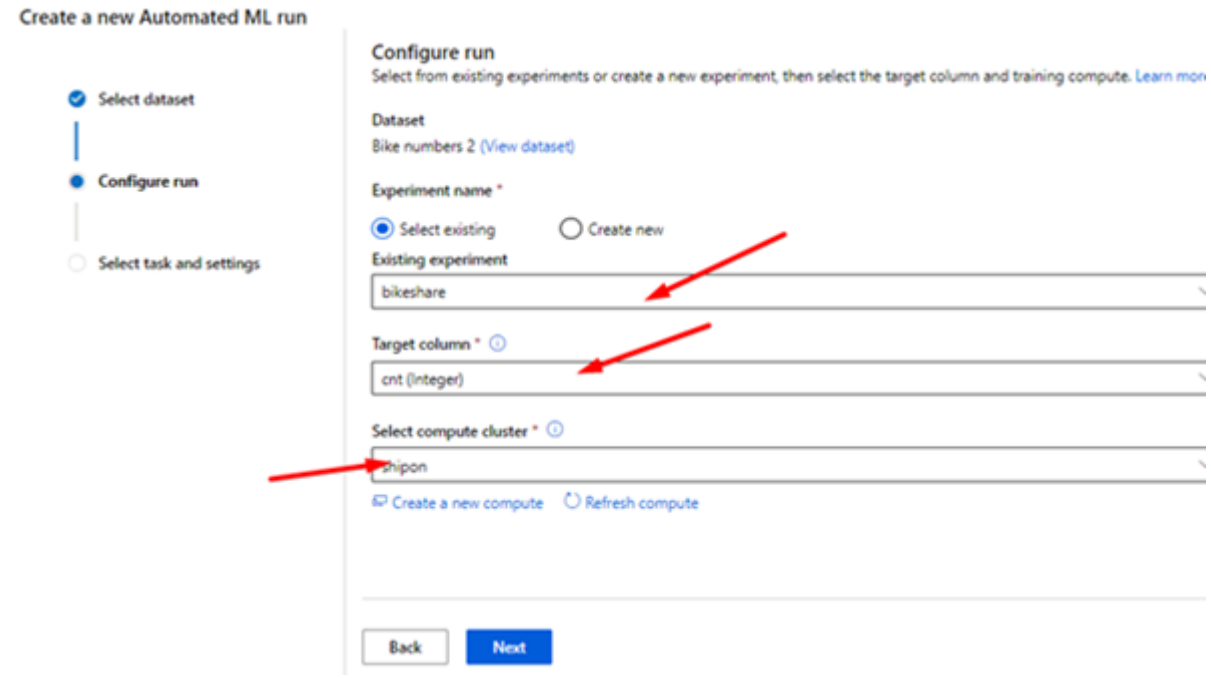
7. select create



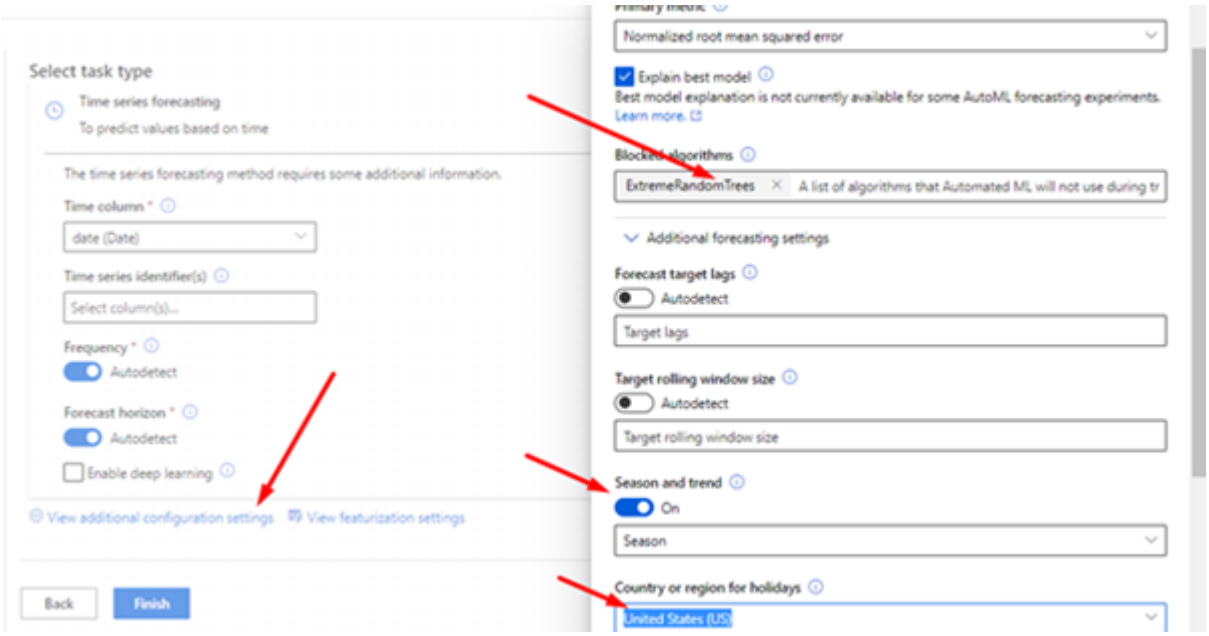
8. select Dataset Bike numbers 2 + next.



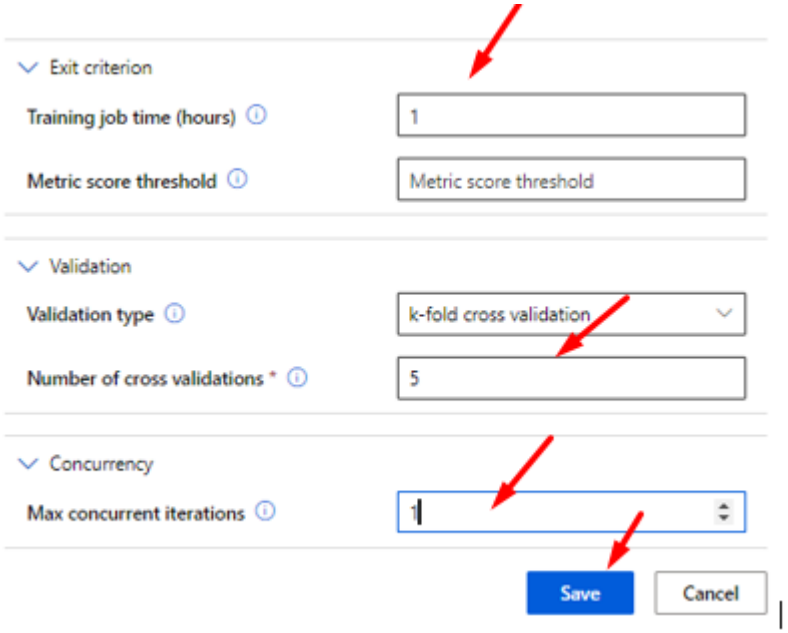
9. Select the name of Existing experiment + Target column we select cnt(integer) + select compute cluster + next.



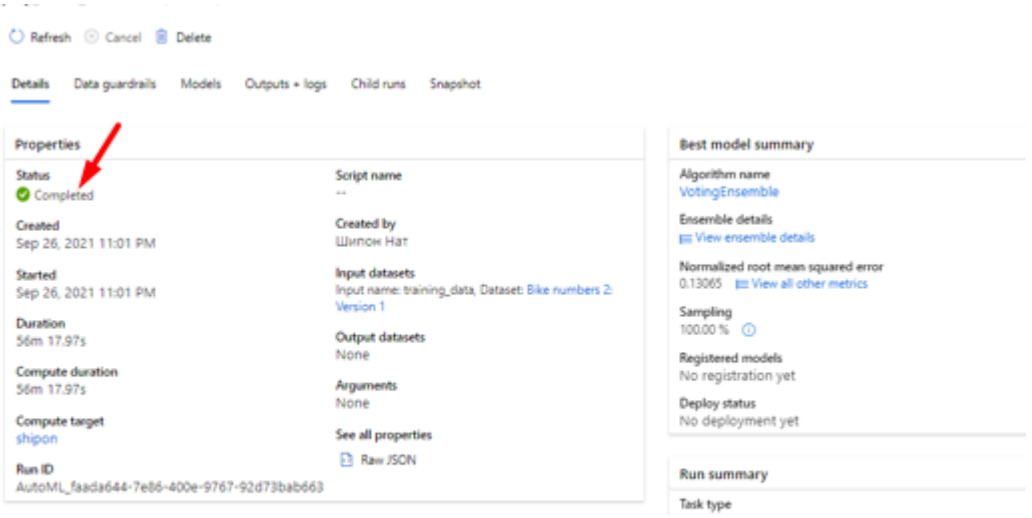
10. Select additional configuration settings then select “Extreme Random Tree” at the Blocked algorithms + on the season and trend.



11. Put 1 for training job time (hours), number of cross-validation 5, and number of cross-validation 1 + save

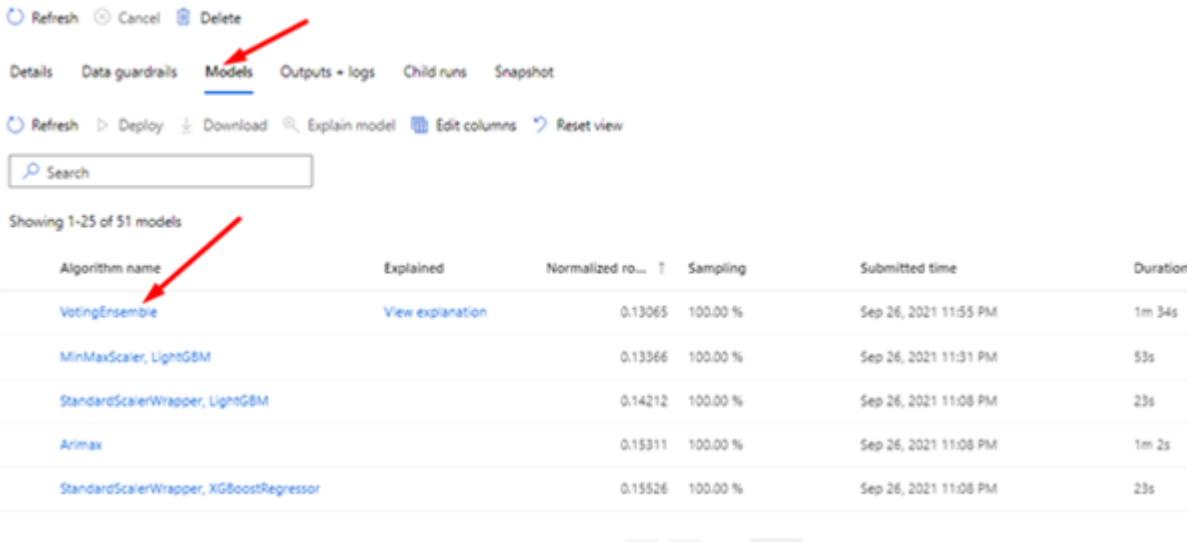


12. After that we get the experiment model, and we can navigate through the Details and Metrics tabs to see the features, metrics, and performance charts of the selected models.

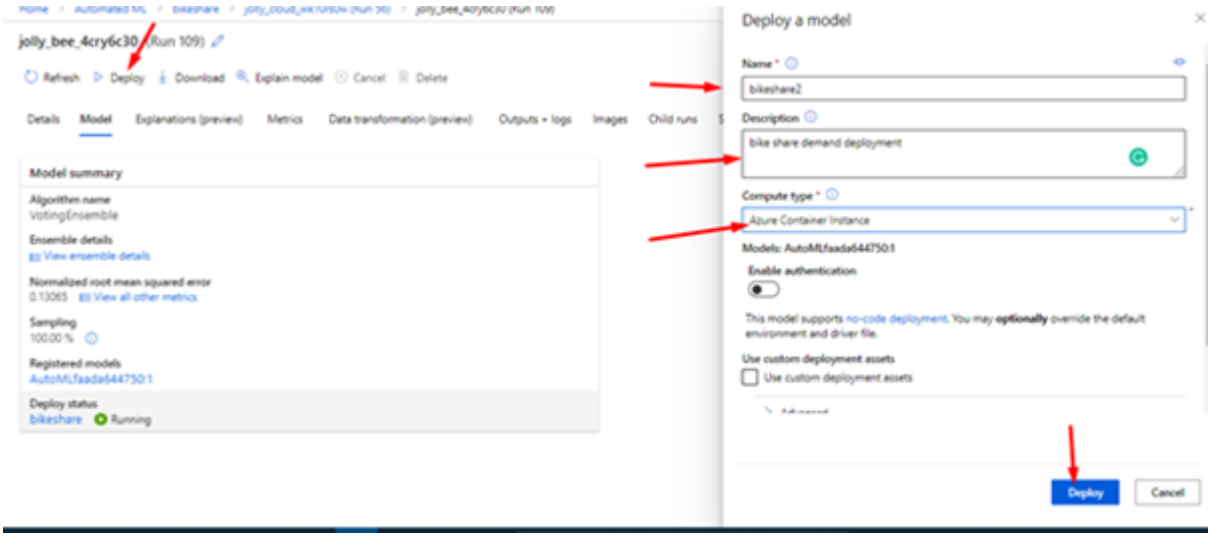


Deploy the model:

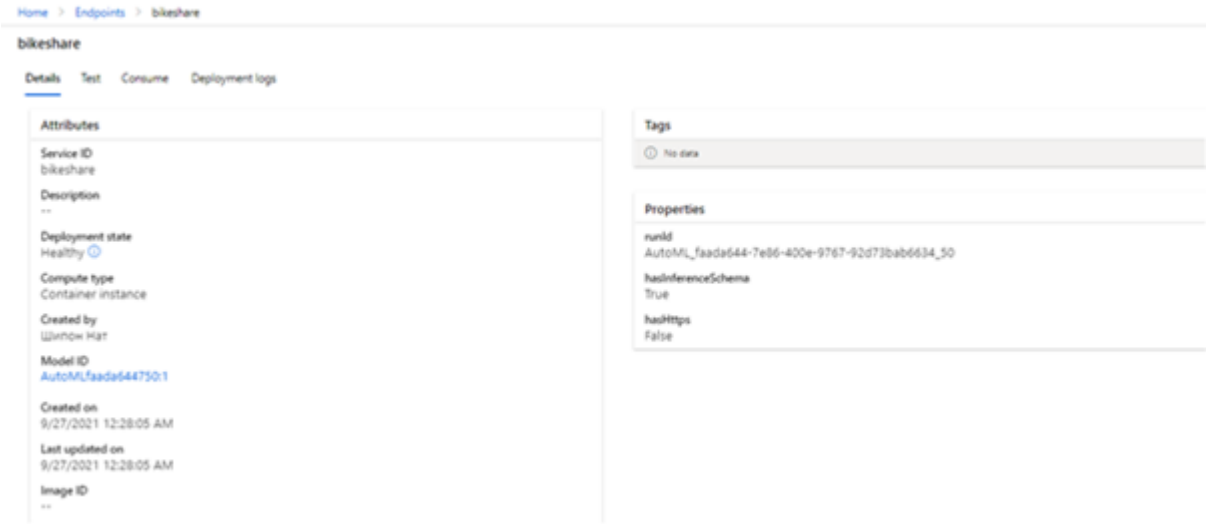
For deploy we have selected the models and then select the best algorithm name.



Select deploy + Deploy name + put a description + select Azure container Instance in Compute type + Deploy.

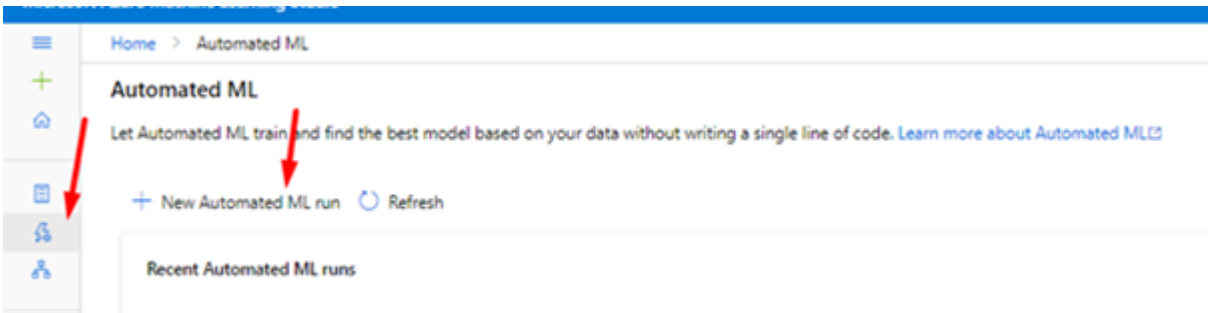


Deploy details of bike share.

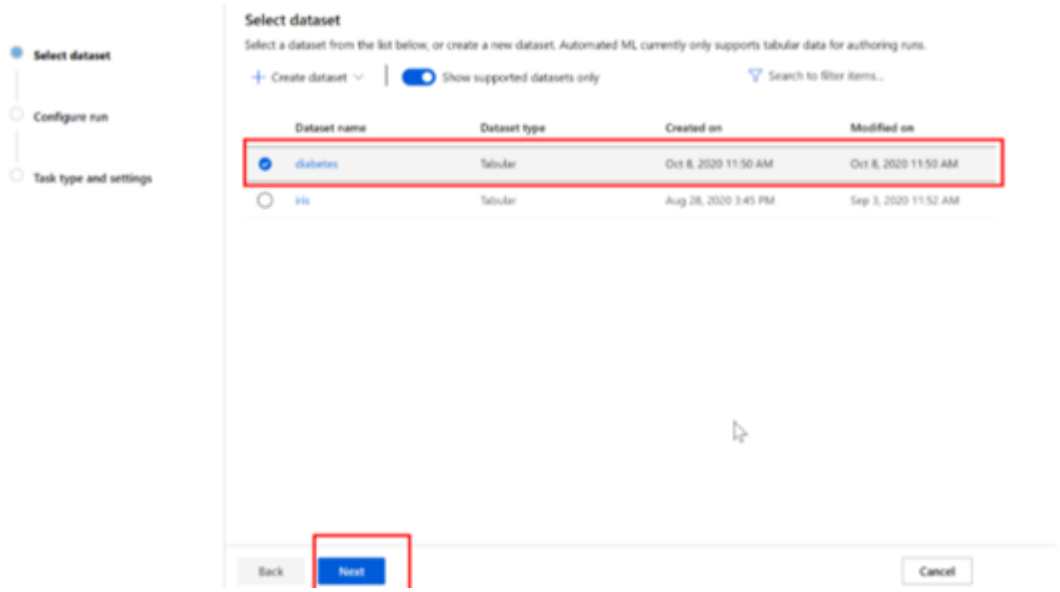


Regression:

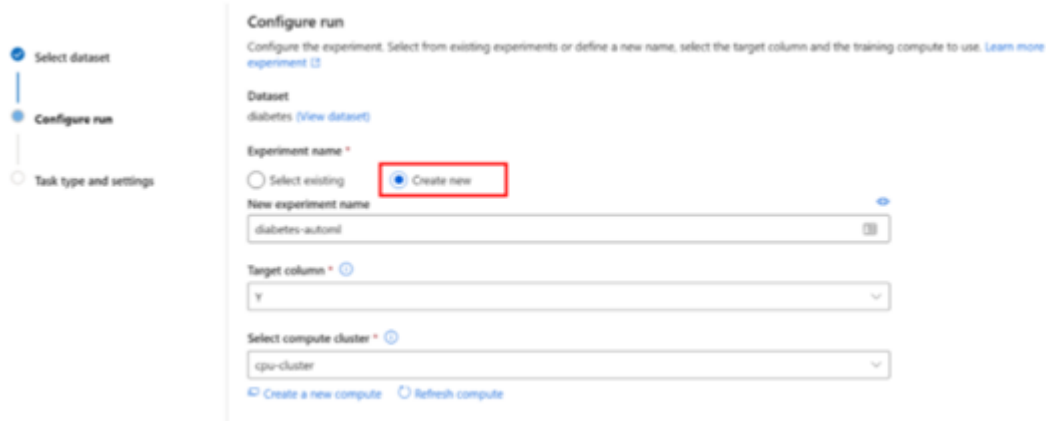
Select Automated ML + select New Automated ML run



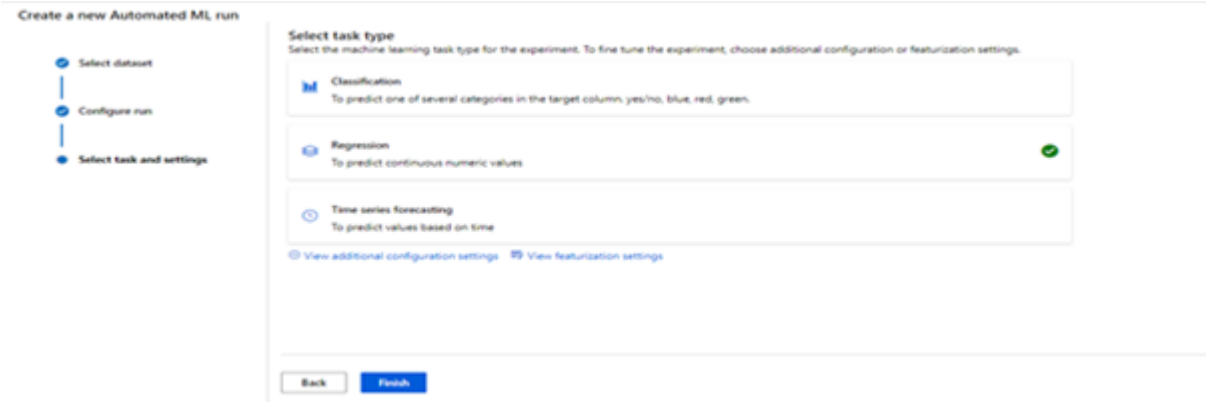
Select diabetes dataset + next



Configure run page, select create new + new experiment name+ target column selects y+ select compute cluster next

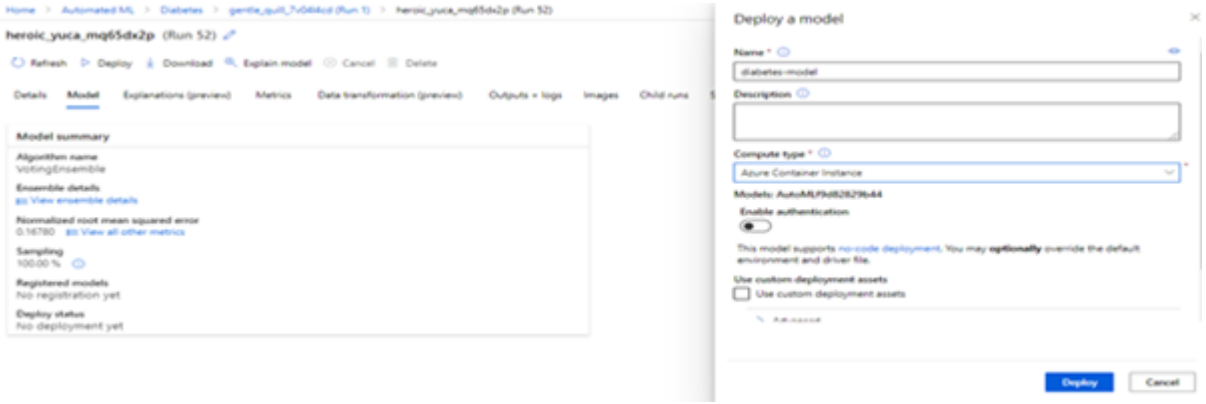


Select Regression



Deploy model:

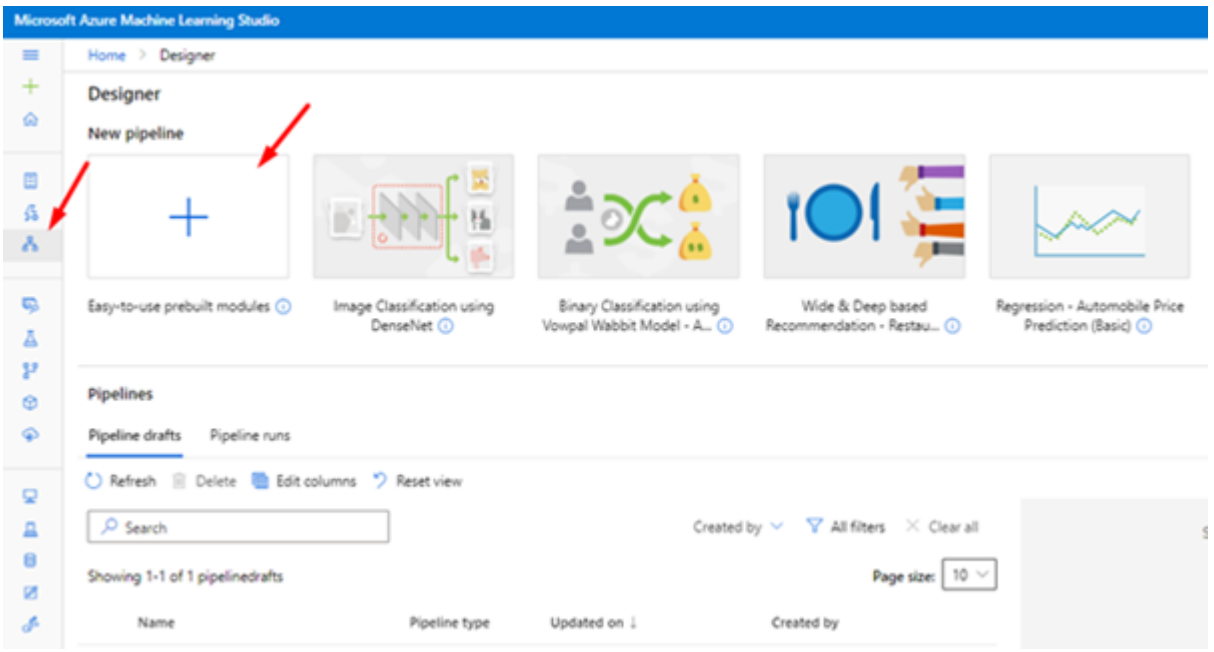
- Select the models + to select Deploy to open a Deploy a model window + Named to the deployed model + select Azure container instance + Deploy



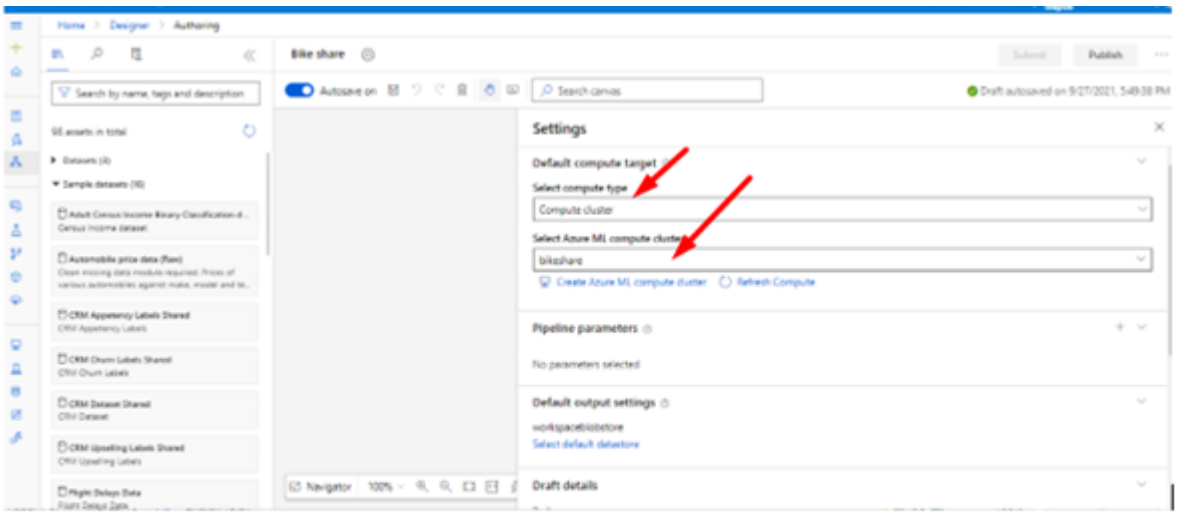
Azure Machin learning practice 2:

<u>Linear regression model:</u>

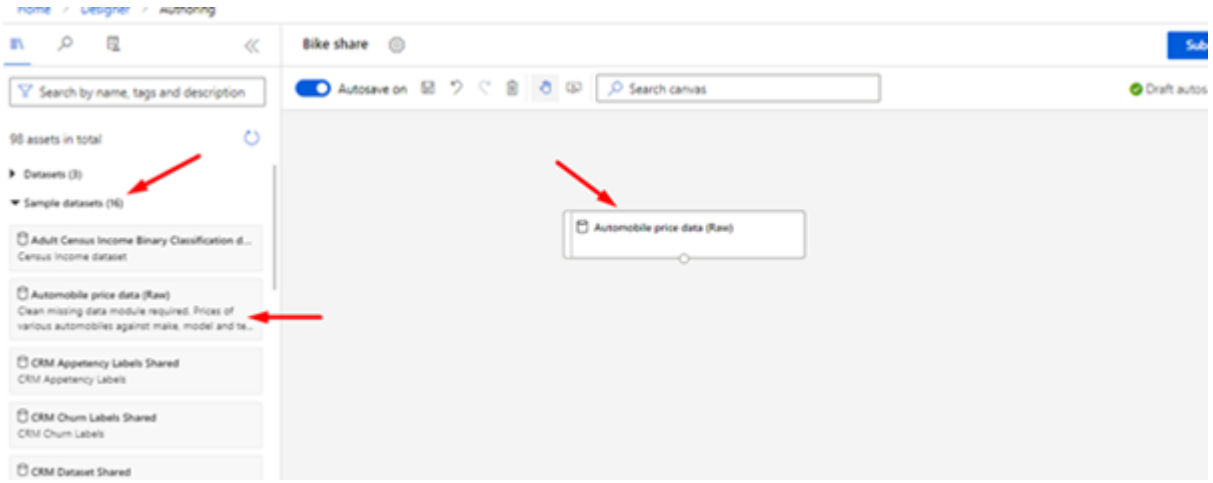
1. At first select Design and select Easy-to-use prebuilt modules.



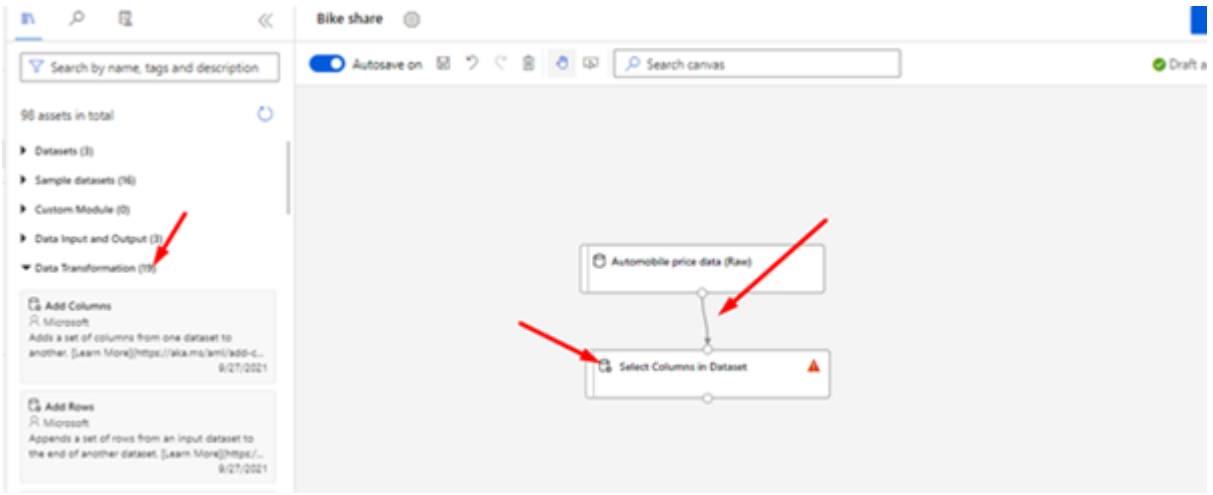
2. Then at the top of the canvas, select the default pipeline name Pipeline-Created-on. Rename it to Bike share + select gear icon + in settings select computer cluster in select compute type + select Azure ML compute cluster + save.



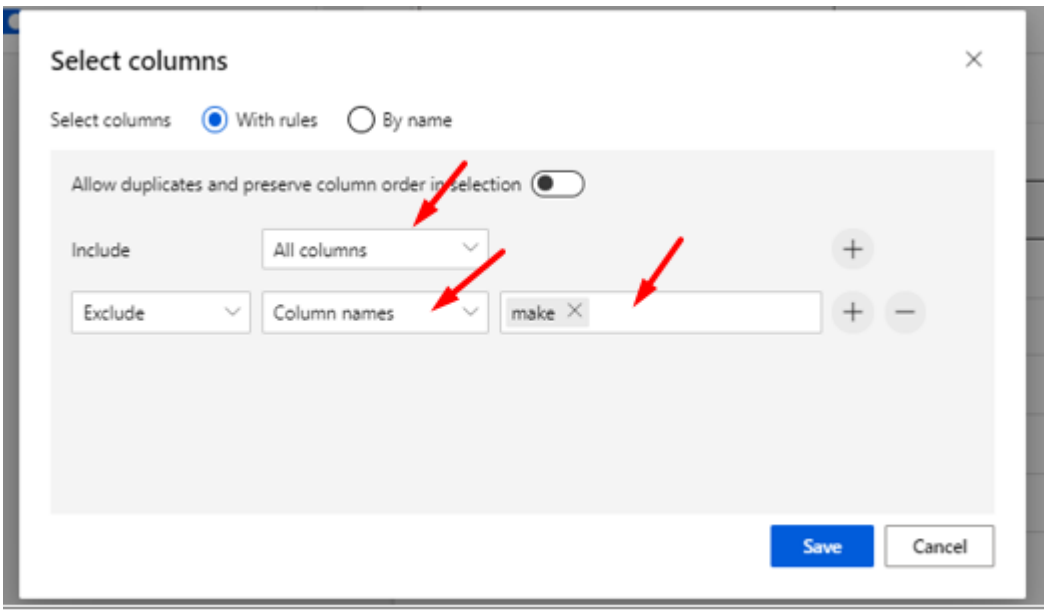
3. Select Sample datasets and select the dataset Automobile price data (Raw) and drag it onto the canvas.



4. On the left of the canvas, expand the Data Transformation section and find the Select Columns in the Dataset module. Connect the Automobile price data (Raw) dataset to the Select Columns in the Dataset module.

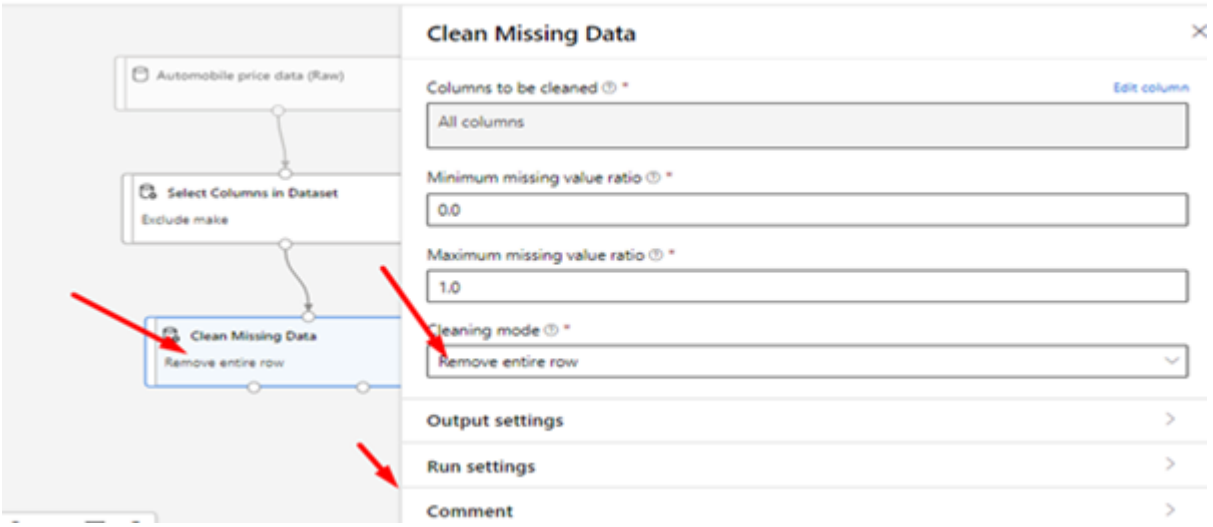


5. In the module details pane to the right of the canvas, select the Edit column. Expand the Column names drop-down next to Include and select all columns. Select the + to add a new rule. From the drop-down menus, select Exclude and Column names. Enter make in the text box. In the lower right, select Save.

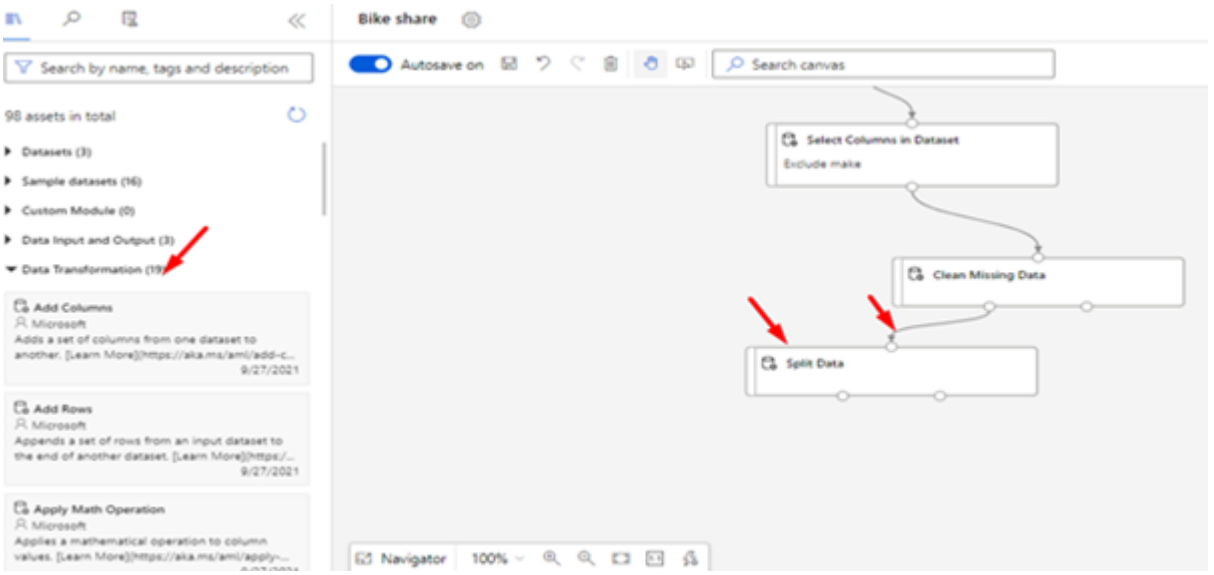


6. select data transformation from the left of the canvas and drag the clean missing data. Connect it to the Select Columns in the Dataset module.

7. Select the Clean Missing Data module. In the module details pane to the right of the canvas, select Edit Column. In the Columns to be cleaned window that appears, expand the drop-down menu next to Include. Select, All columns Select Save In the module details pane to the right of the canvas, select Remove entire row under Cleaning mode. In the module details pane to the right of the canvas, select the Comment box, and enter Remove missing value rows.



8. expand the section Data Transformation and find the Split Data module. Drag the Split Data module to the pipeline canvas. Connect the left port of the Clean Missing Data module to the Split Data module.



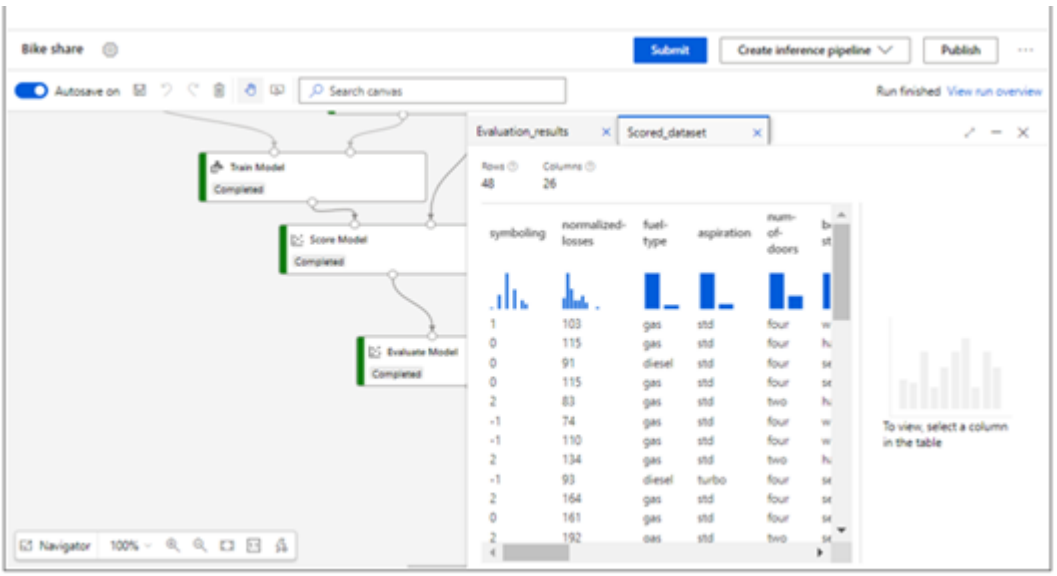
9. Select the Split Data module. In the module details pane to the right of the canvas, set the Fraction of rows in the first output dataset to 0.7. In the module details pane to the right of the canvas, select the Comment box, and enter Split the dataset into a training set (0.7) and test set (0.3).

10. Expand Machine Learning Algorithms. Select Linear Regression and drag it to the pipeline canvas. In the module palette, expand the section Module training, and drag the Train Model module to the canvas. Connect the output

of the Linear Regression module to the left input of the Train Model module. Connect the training data output (left port) of the Split Data module to the right input of the Train Model module.

11. Enter the score model in the search box to find the Score Model module. Drag the module to the pipeline canvas. Connect the output of the Train Model module to the left input port of the Score Model. Connect the test data output (right port) of the Split Data module to the right input port of the Score Model. And after that enter evaluation in the search box to find the Evaluate Model module. Drag the module to the pipeline canvas. Connect the output of the Score Model module to the left input of Evaluate Model.

12. Finally get the scored dataset and Evaluation result.


Bike share
Submit
Create inference pipeline
Publish
Autosave on
Search canvas
Run finished View run overview
Train Model
Completed
Score Model
Completed
Evaluate Model
Completed
Evaluation_results
Scored_dataset
Rows
48
Columns
26
symboling
normalized-losses
fuel-type
aspiration
num-of-doors
1 103 gas std four
0 115 gas std four
0 91 diesel std four
0 115 gas std four
2 83 gas std two
-1 74 gas std four
-1 110 gas std four
2 134 gas std two
-1 93 diesel turbo four
2 164 gas std four
0 161 gas std four
2 192 gas std two
To view, select a column in the table
Navigator
100%