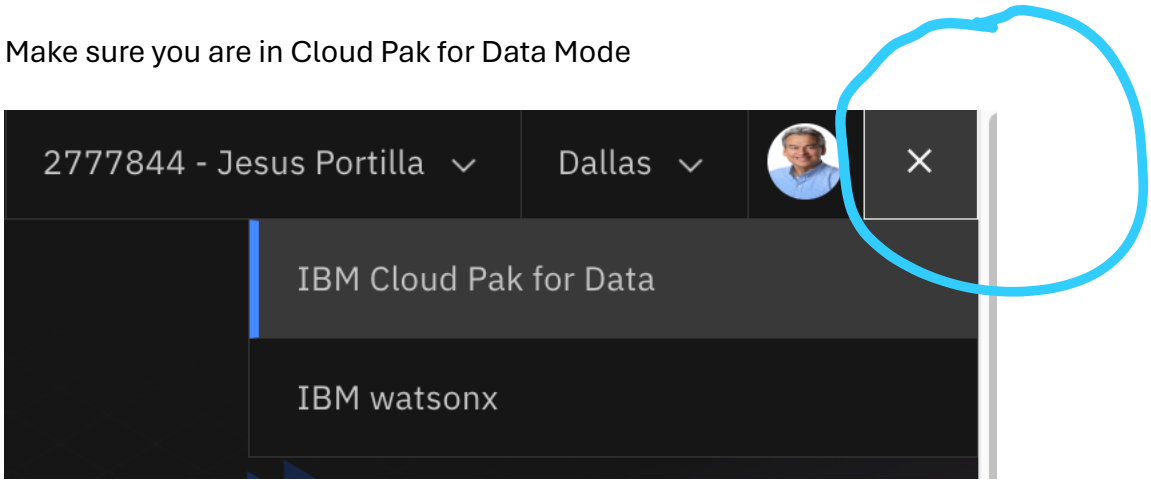
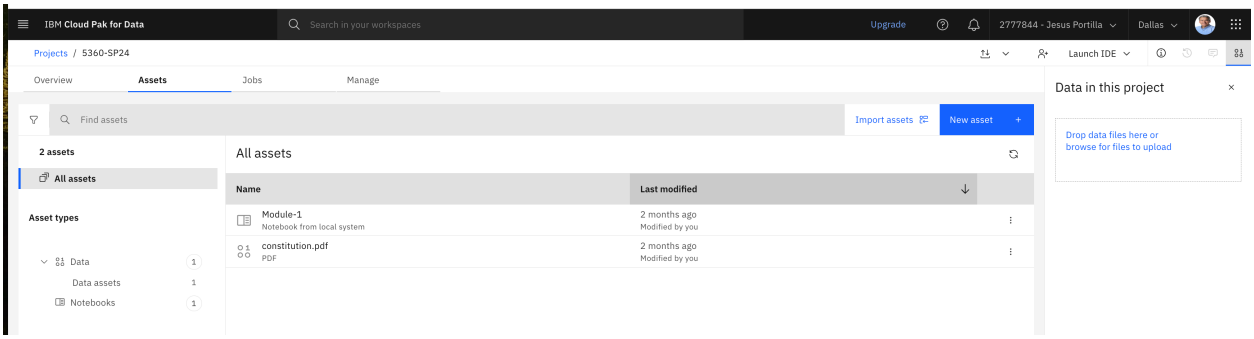
1. Login to IBM Watson Studio – Cloud Pak for Data

https://dataplatform.cloud.ibm.com/

1.1 Make sure you are in Cloud Pak for Data Mode



2. Navigate to Course project: 5360-SP24



3. Import Data

Select Drop Data here in Data in this Project Section, add energy-5360.csv, inspect the data

Projects / 5360-SP24 / energy.csv

Preview asset | Profile | Data quality | Visualization | Feature group β

Columns: 6 | Sample rows: 96 — Last refresh: 13 seconds ago

Electricity_Usage	Year_Built	Floors	Area_SQFT	PLEI_1_Quantity	PLEI_3_Quantity
117870	1955	4	14600	1	2
16207	1940	1	600	1	
15564	1920	2	6	2	1
25851	1965	1	5	6	1
32343	1930	3	4196	1	1
106938	1910	1	2200	2	1
228985	1964	2	26318	18	7
228985	1964	2	26318	18	7
380400	1931	4	650	2	27
4510	1910	3	324	2	1
10722	1897	2	3800	4	1
6365	1931	1	3128	4	1
15130	1931	1	5700	1	2
51172	1960	2	150	2	1

4. Create new AutoAI asset.

New asset

Select a tool based on what type of asset you want and how you want to work.

Tool type

- All types
- Data access tools
- **Automated builders**
- Graphical builders
- Code editors
- Component editors

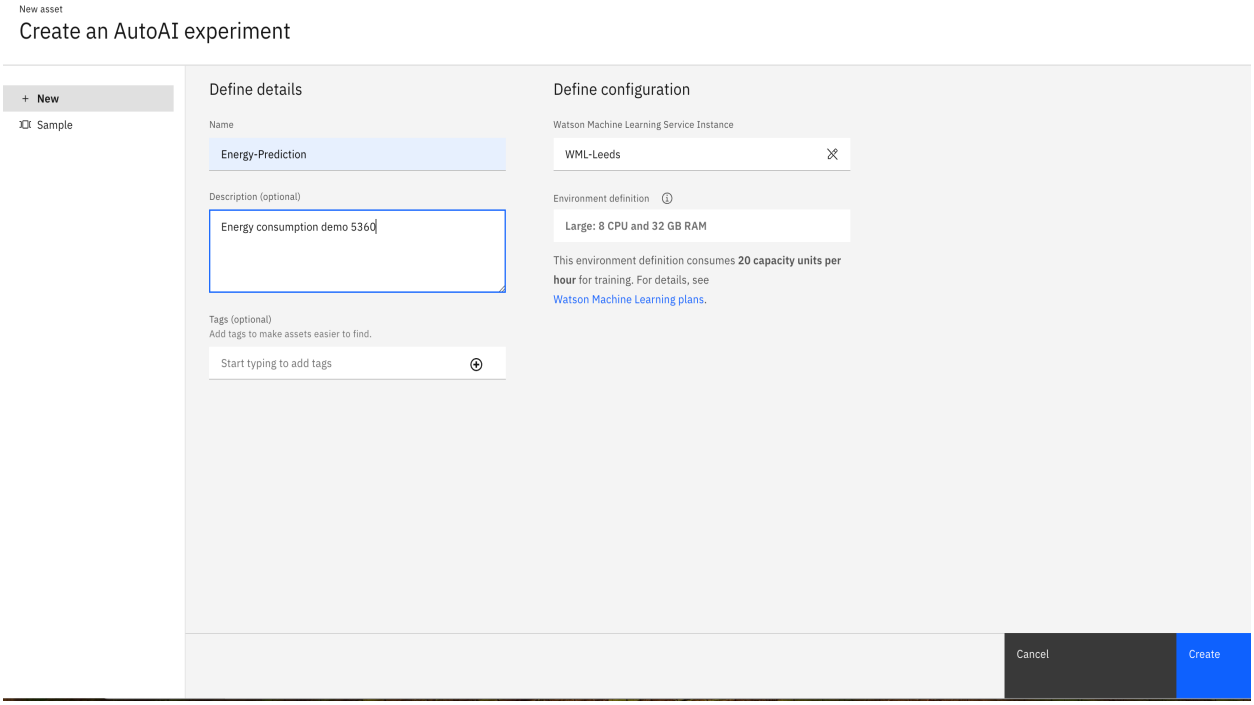
Find tools by name or description

Automated builders

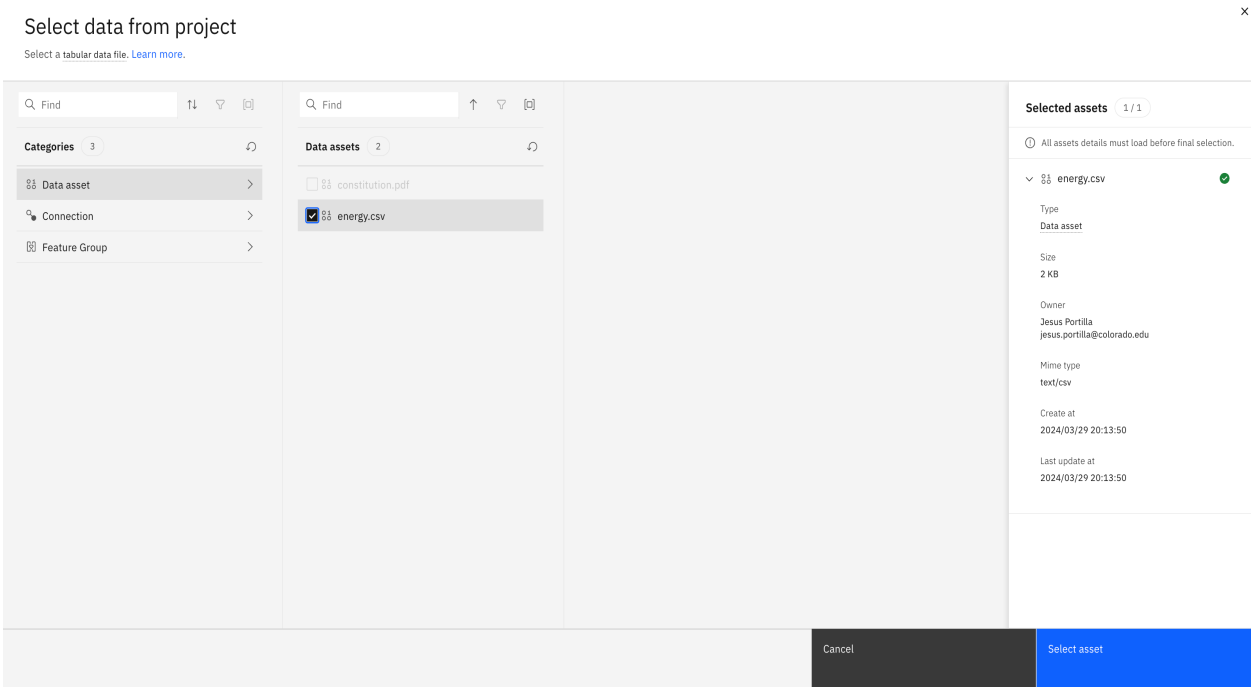
AutoAI

Automatically analyze your tabular data and generate candidate model pipelines customized for your predictive modeling problem.

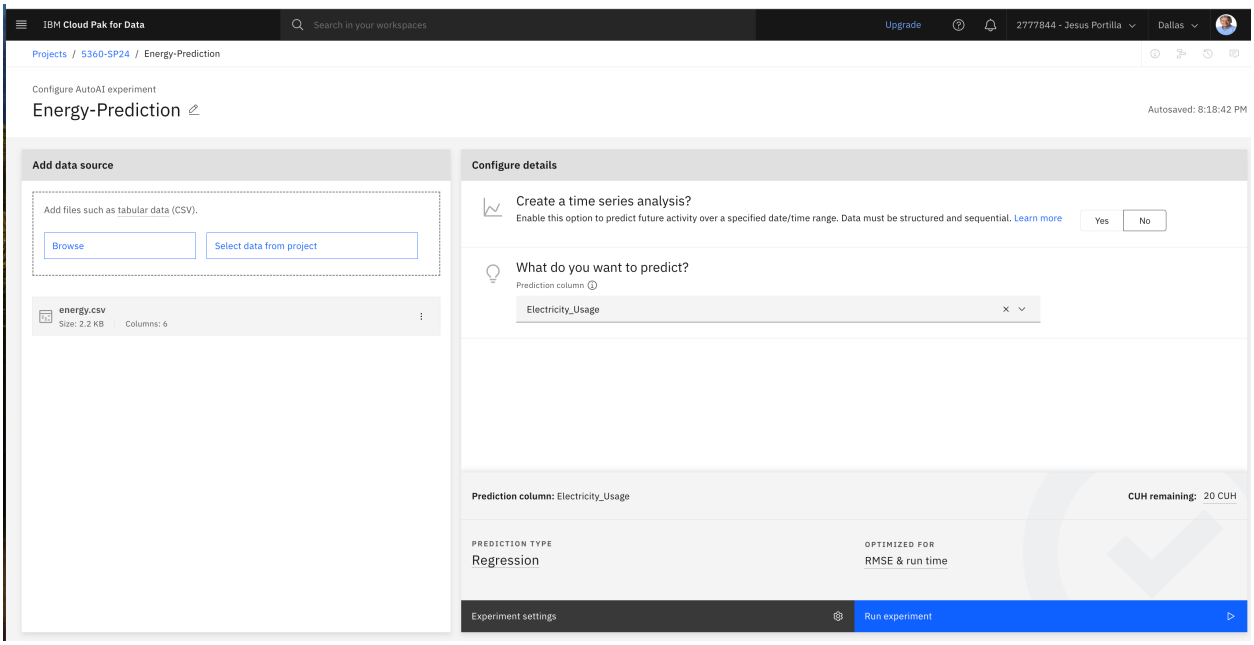
5. Complete configuration details:



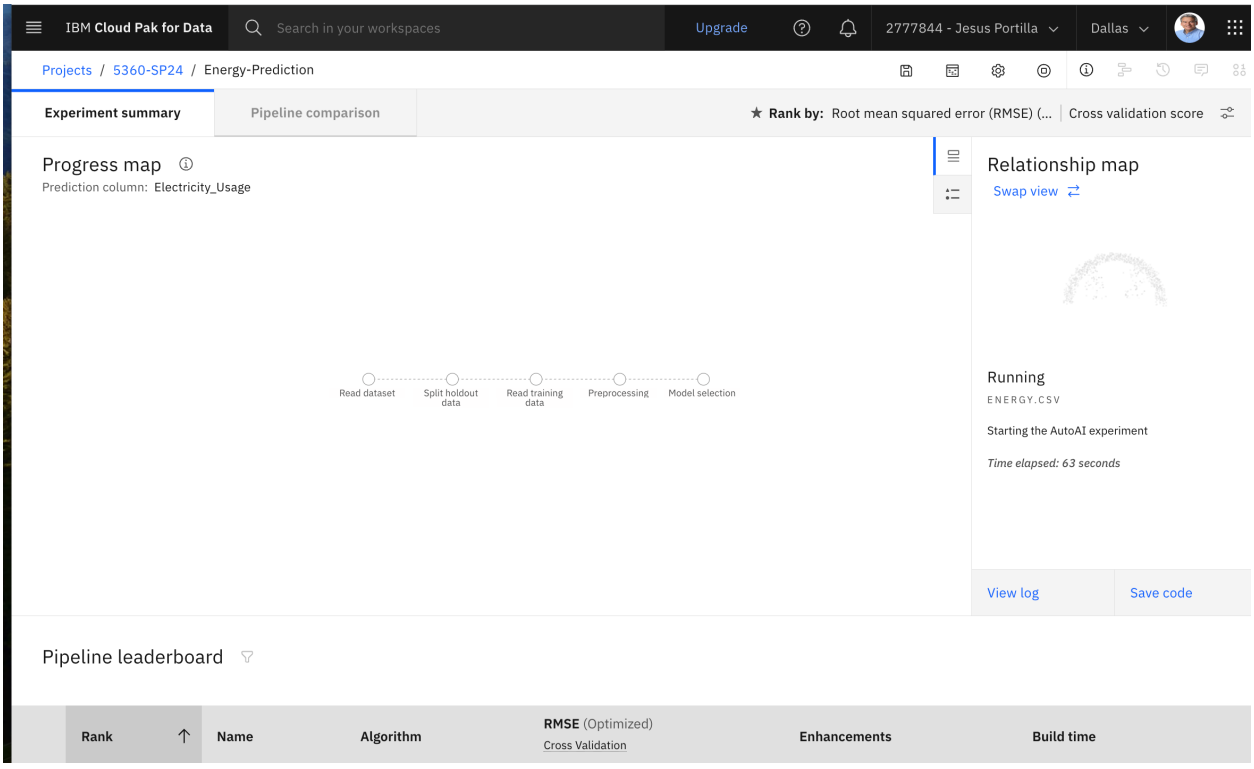
6. Select Data asset energy-5360.csv loaded earlier:



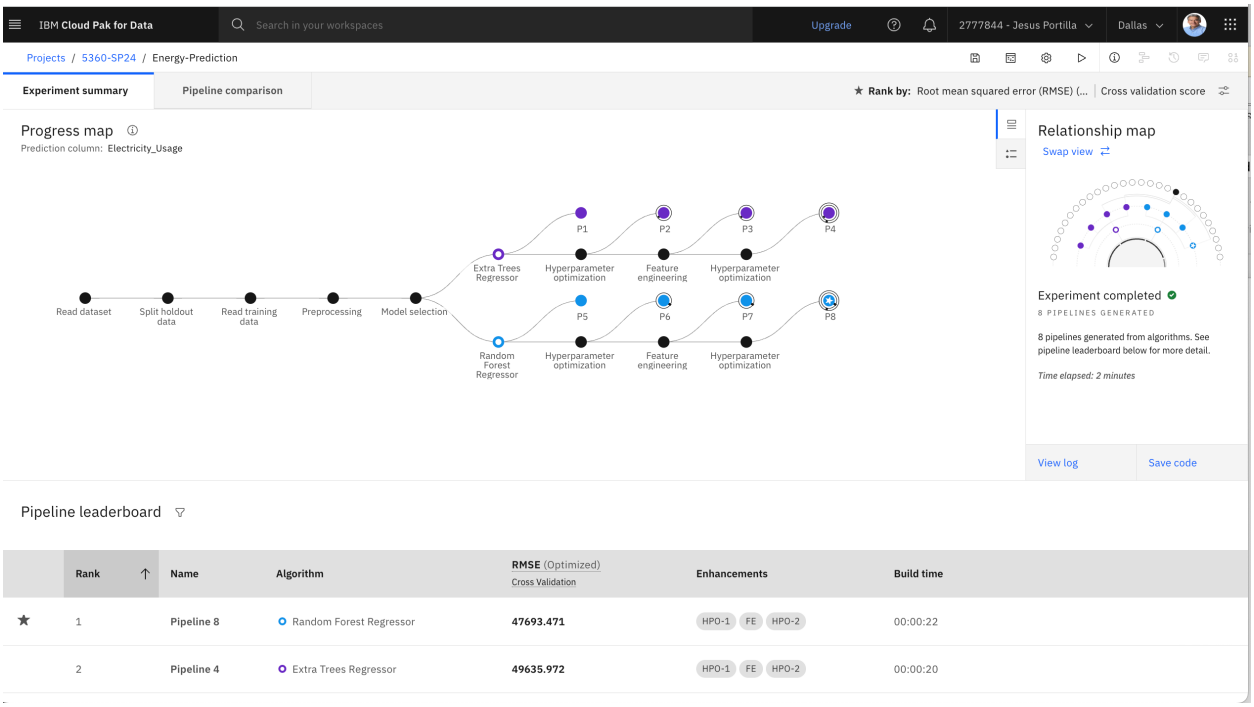
7. Answer configuration questions



8. Monitor AutoAI Experiment



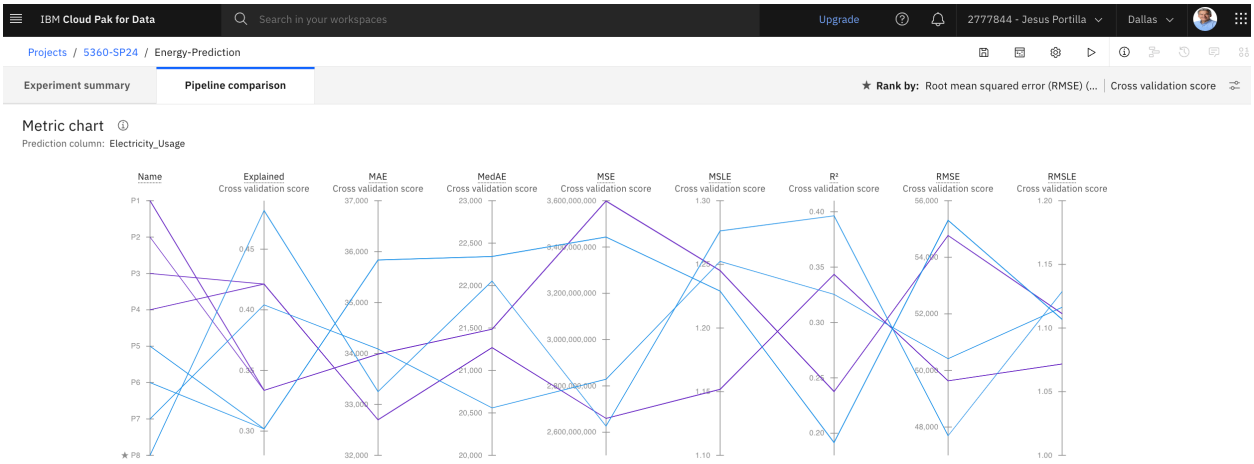
9. Select the best pipeline from AutoAI Experiment run:



Pipeline leaderboard

	Rank	Name	Algorithm	RMSE (Optimized) Cross Validation	Enhancements	Build time
★	1	Pipeline 8	Random Forest Regressor	47693.471	HPO-1 FE HPO-2	00:00:22
	2	Pipeline 4	Extra Trees Regressor	49635.972	HPO-1 FE HPO-2	00:00:20

10. Compare pipelines metrics:



Pipeline leaderboard

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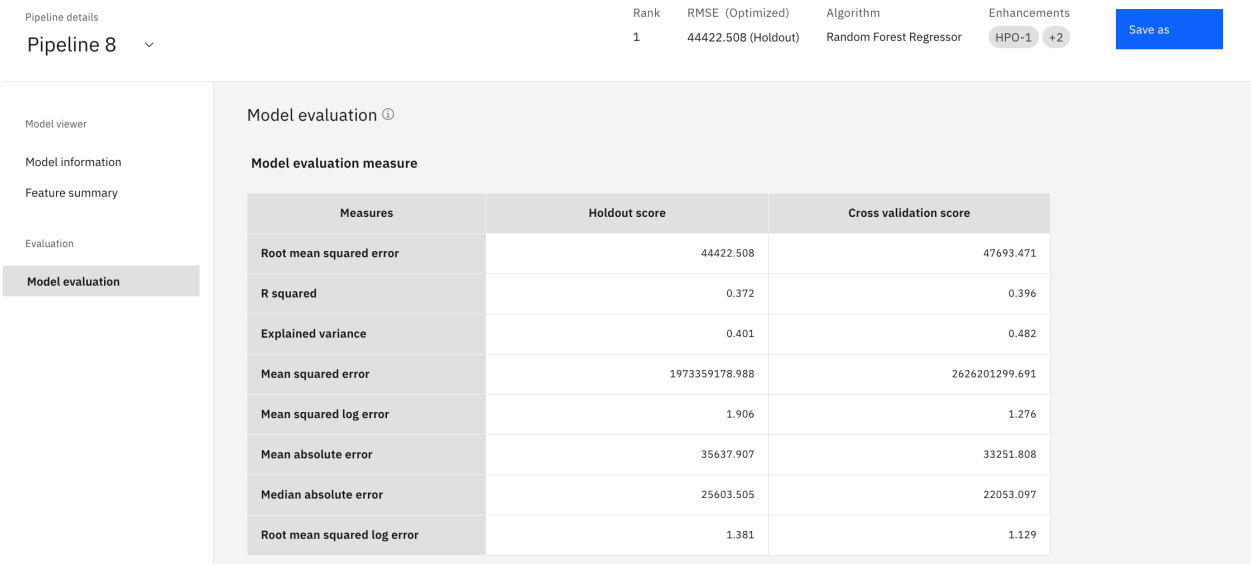
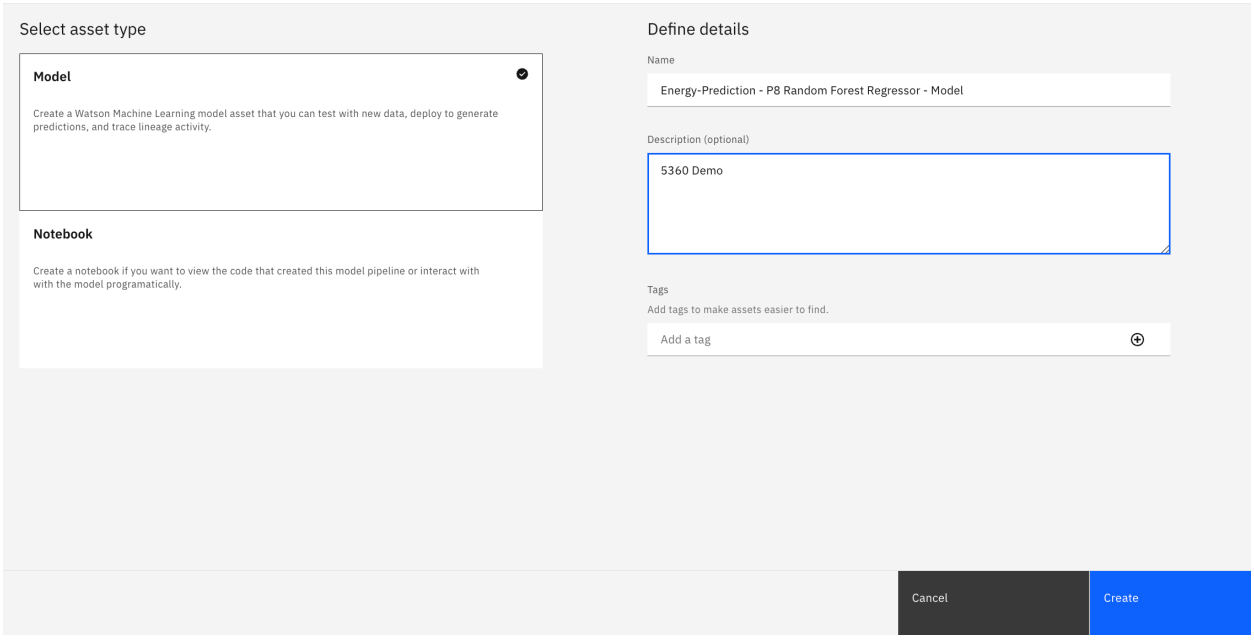
	2	Pipeline 4	Extra Trees Regressor	49635.972	HPO-1 FE HPO-2	00:00:20

11. Select the best pipeline (Pipeline 8) and save it as a ML model:

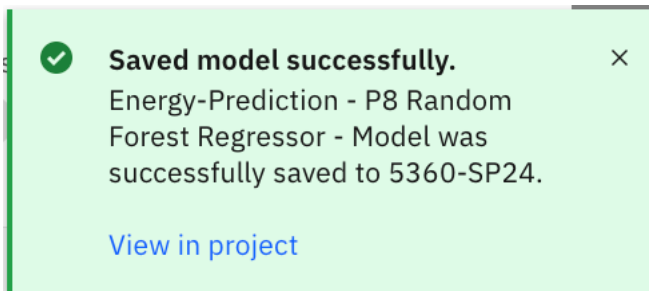


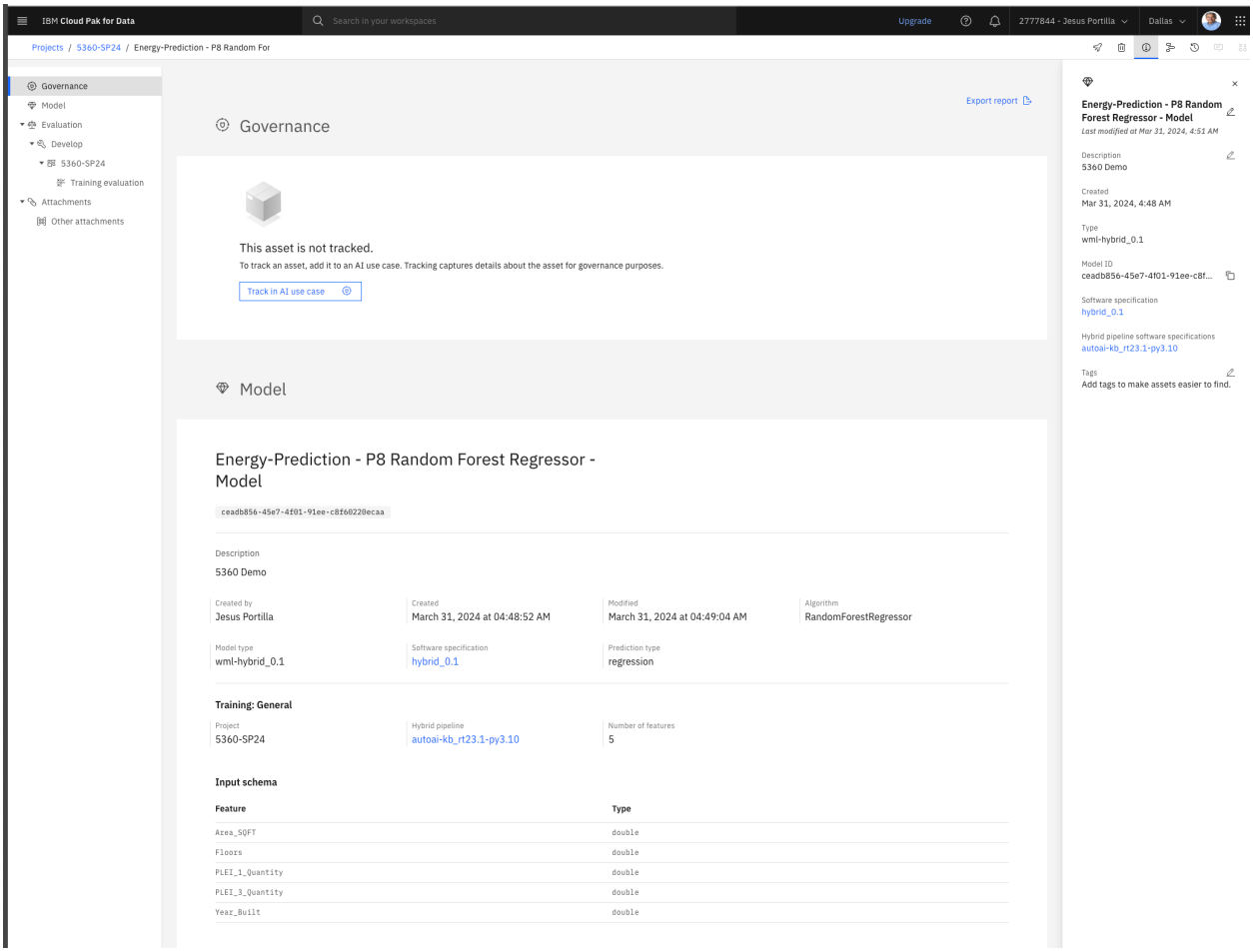
12. Complete the Save as details:

Save as

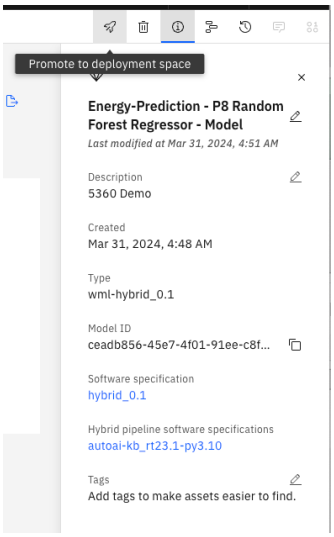


13. If Model is saved successfully, you will see the following message:

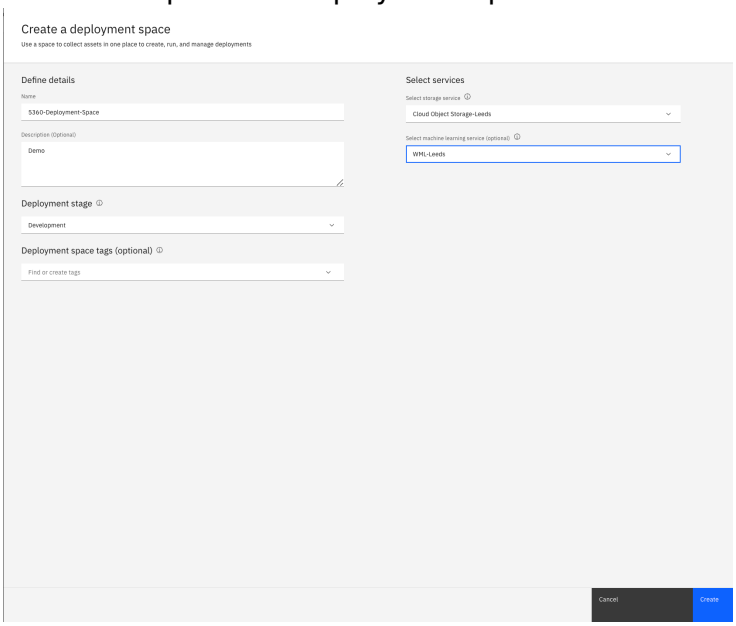


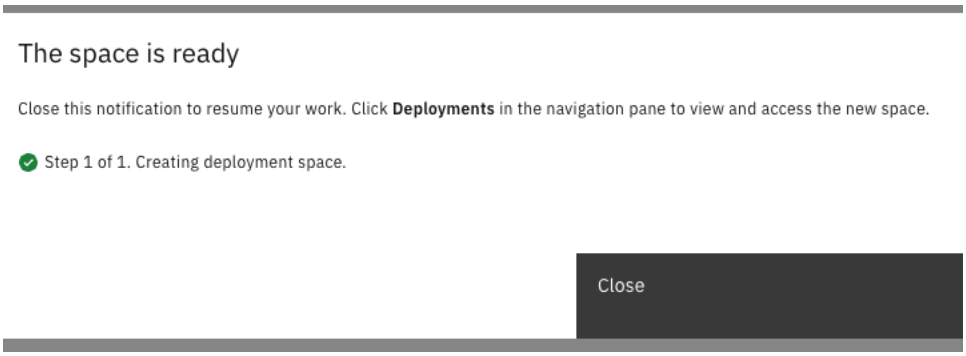


14. Next promote Model to a Deployment space

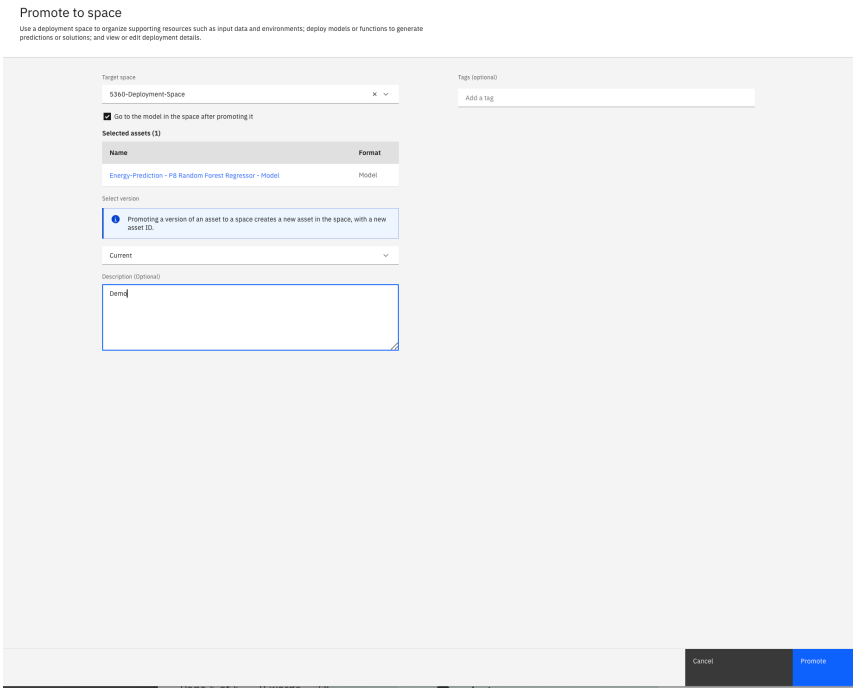


15. Complete the Deployment Space details as follows:

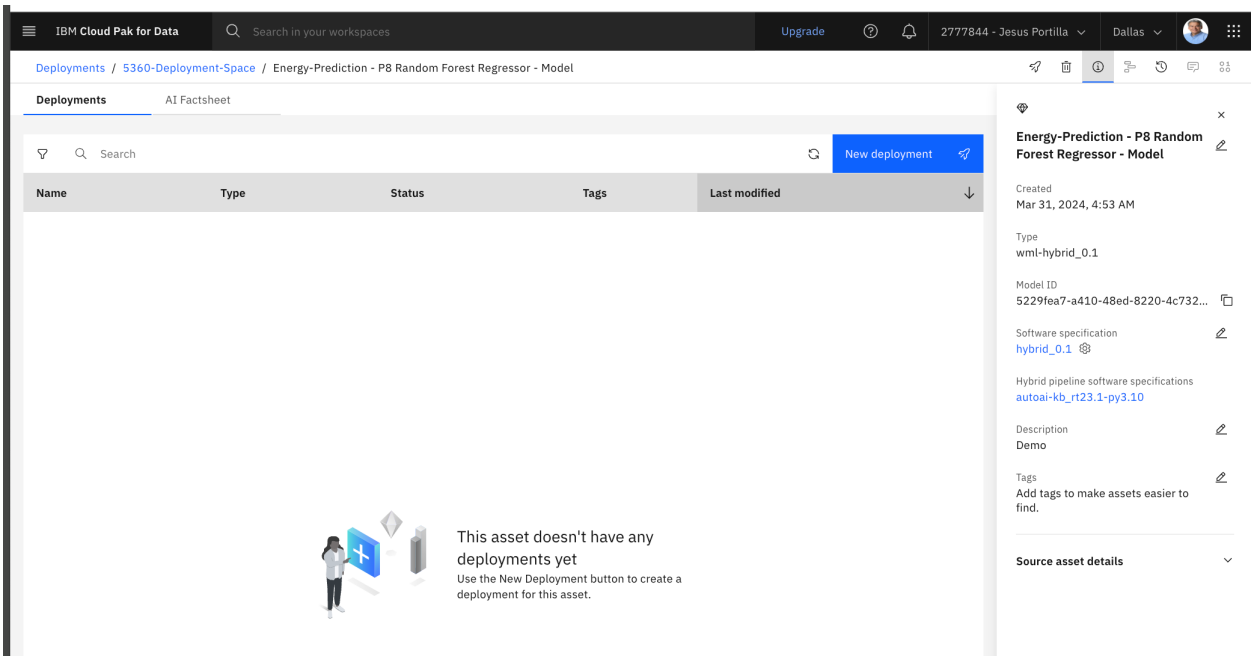




16. Deploy model to the newly created deployment space:

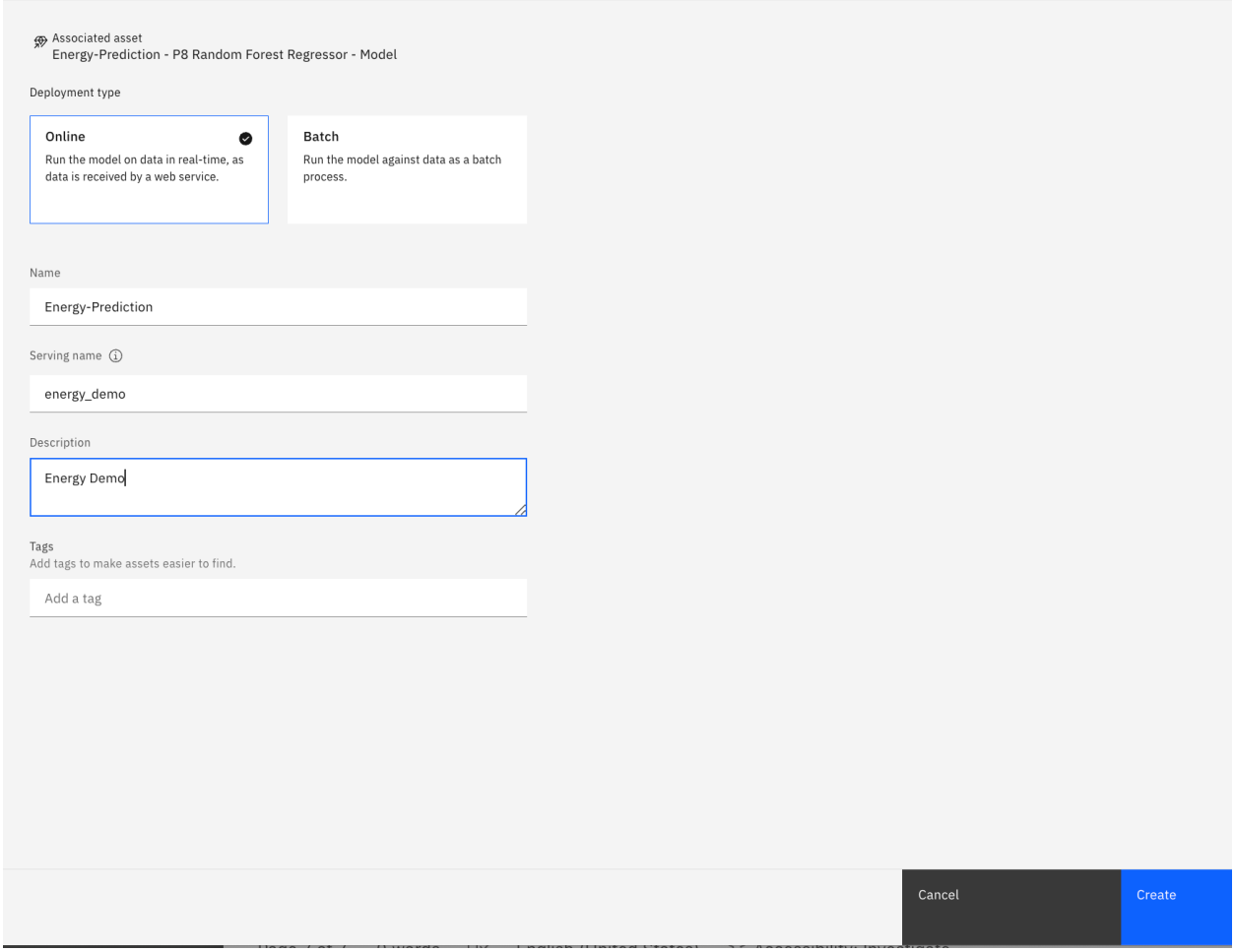


17. Create a Model deployment

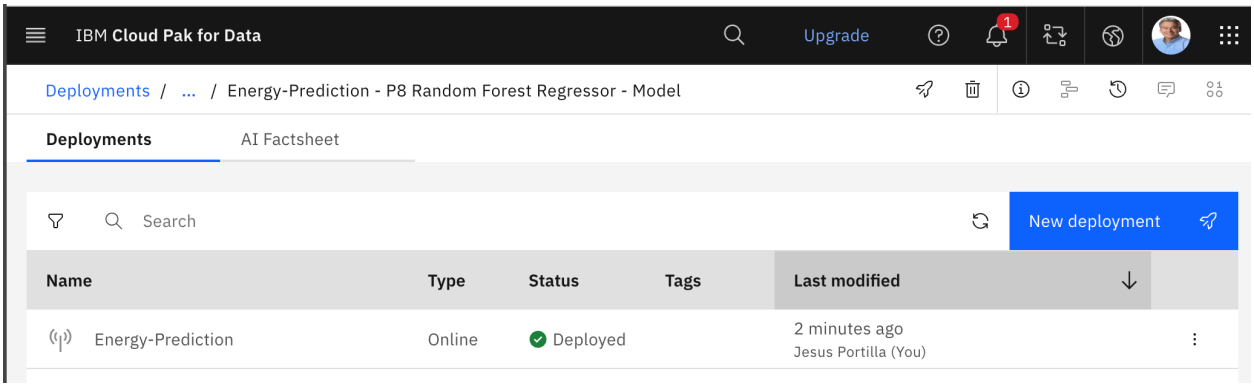


18. Complete deployment details

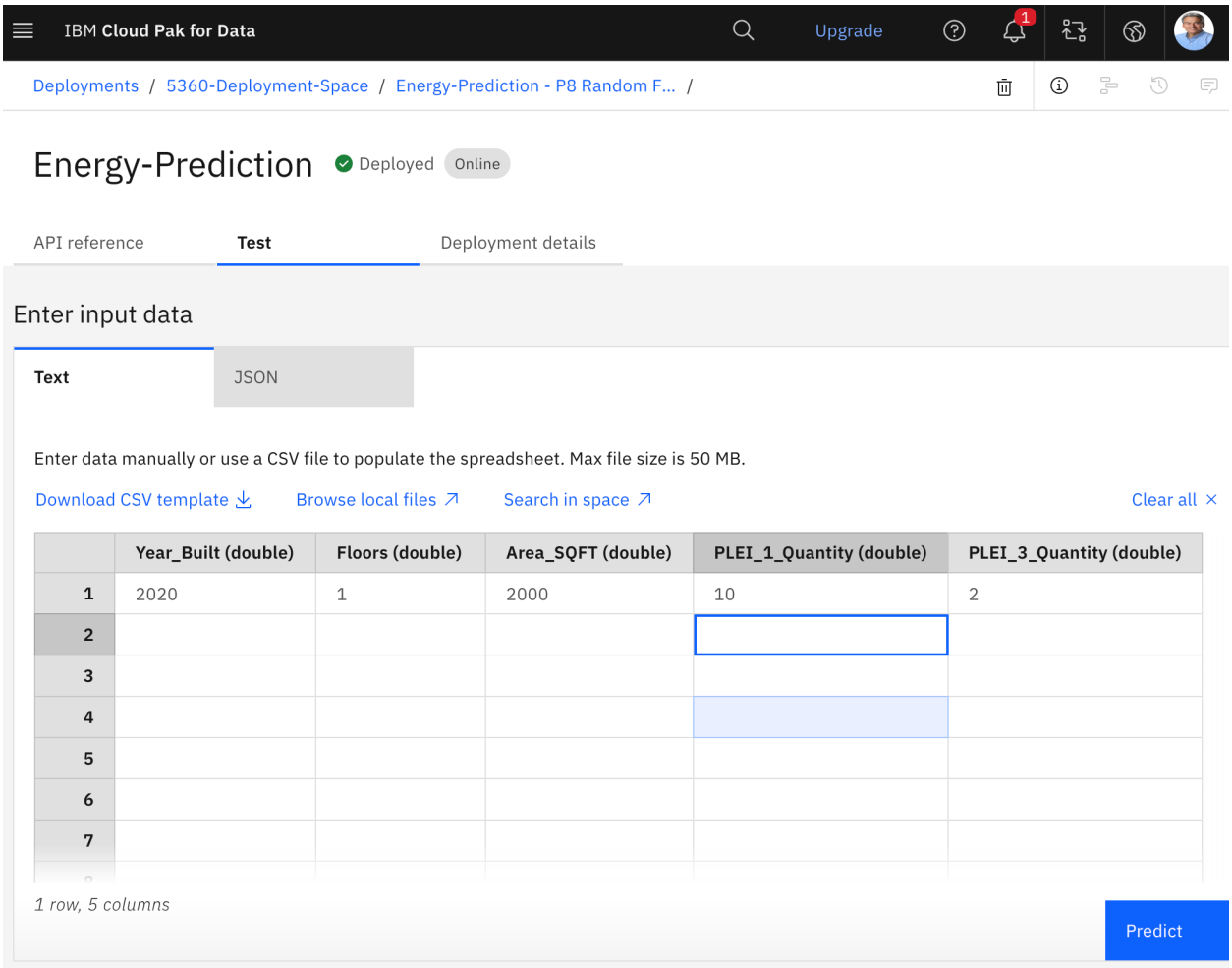
Create a deployment



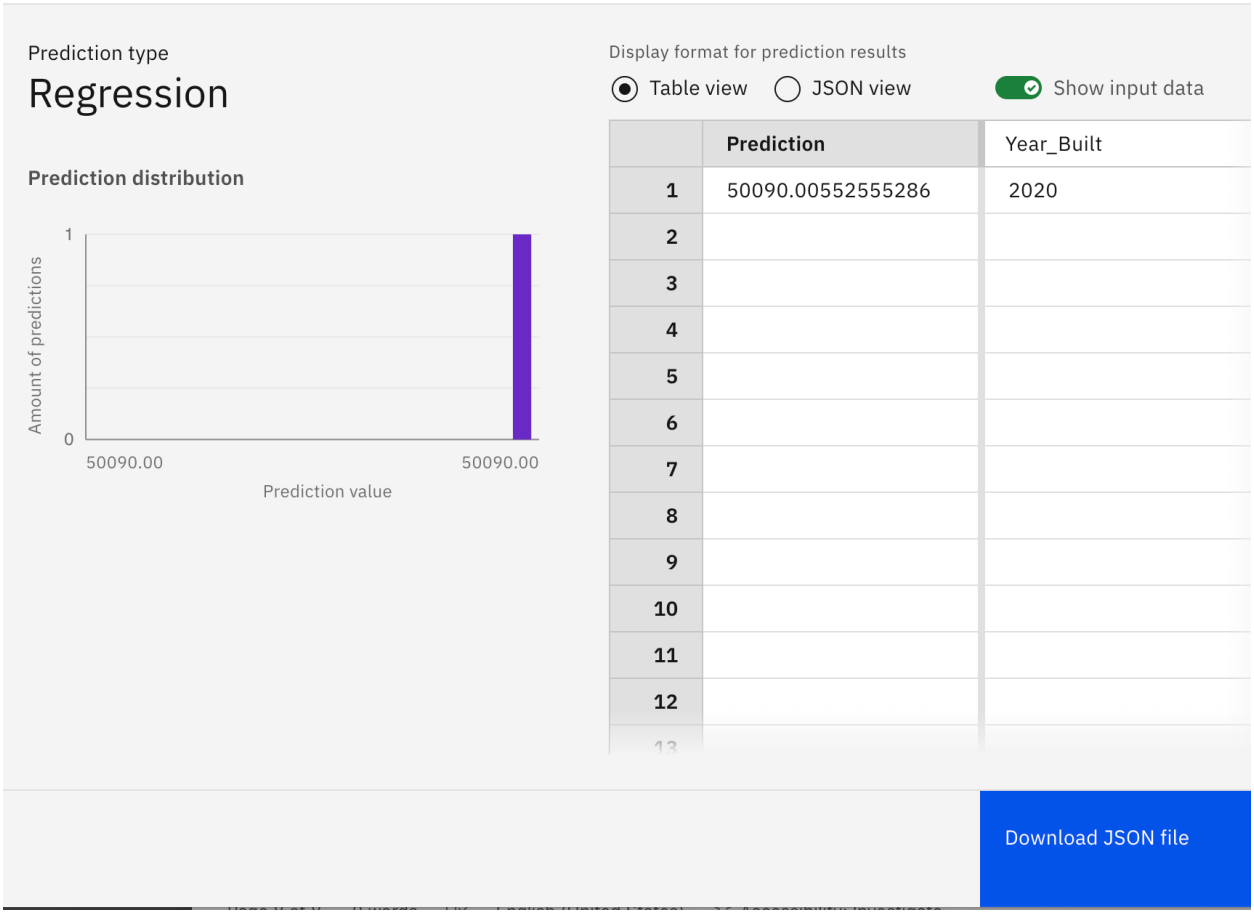
19. Once deployment is created, proceed to testing the model



20. Enter test data in the new deployment


IBM Cloud Pak for Data
Upgrade
1
Deployments / 5360-Deployment-Space / Energy-Prediction - P8 Random F... /
Energy-Prediction
Deployed
Online
API reference
Test
Deployment details
Enter input data
Text
JSON
Enter data manually or use a CSV file to populate the spreadsheet. Max file size is 50 MB.
Download CSV template
Browse local files
Search in space
Clear all
Year_Built (double)
Floors (double)
Area_SQFT (double)
PLEI_1_Quantity (double)
PLEI_3_Quantity (double)
1
2020
1
2000
10
2
2
3
4
5
6
7
1 row, 5 columns
Predict

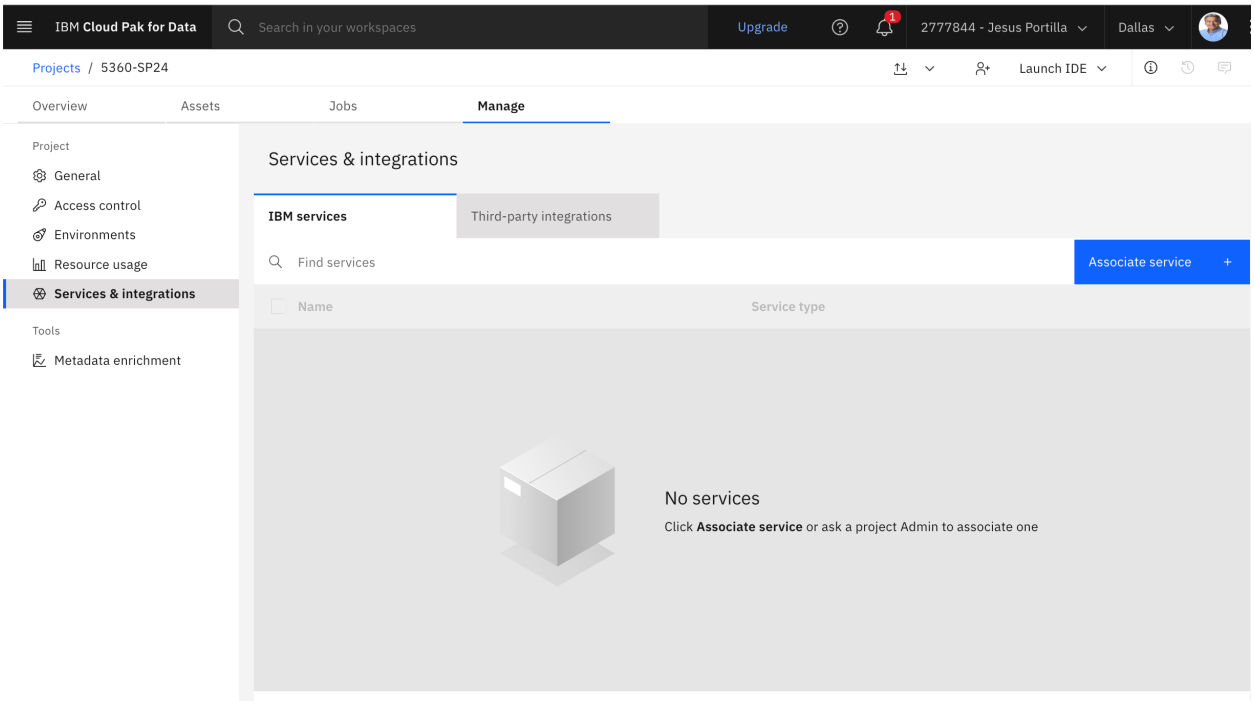
Prediction results




```
{
        "fields": [
                "prediction"
        ],
        "values": [
                [
                        50090.00552555286
                ]
        ]
}
```


Configuration:

Make sure to associate a Watson Machine Learning instance to your Watson Studio instance



Associate service

Choose an existing or add a new service to associate with your project.

1 Default
2 Locations

Find services

New service

Name	Type	Plan	Location	Status	Group
Watson Assistant-CU-class	watsonx Assistant	Trial	Dallas	Not associated	Default
Watson Assistant-k-12-ai	watsonx Assistant	Lite	Dallas	Not associated	Default
IBM Cognos Dashboard Embedded-im	IBM Cognos Dashboard Embedded	Lite	Dallas	Not associated	Default
Language Translator-5360	Language Translator	Lite	Dallas	Not associated	Default
Natural Language Understanding-Fall21	Natural Language Understanding	Lite	Dallas	Not associated	Default
WML-Leeds	Watson Machine Learning	Lite	Dallas	Not associated	Default
Speech to Text-Pay-5360	Speech to Text	Plus - NEW!	Dallas	Not associated	Default
Speech to Text-vf	Speech to Text	Lite	Dallas	Not associated	Default

Cancel

Associate