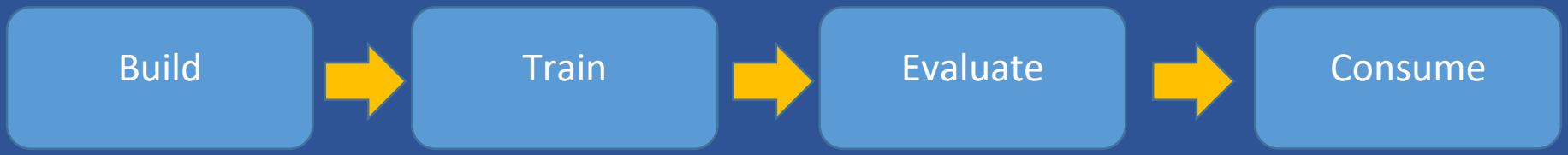
Create AutoML of Diamond prediction

What in this session?

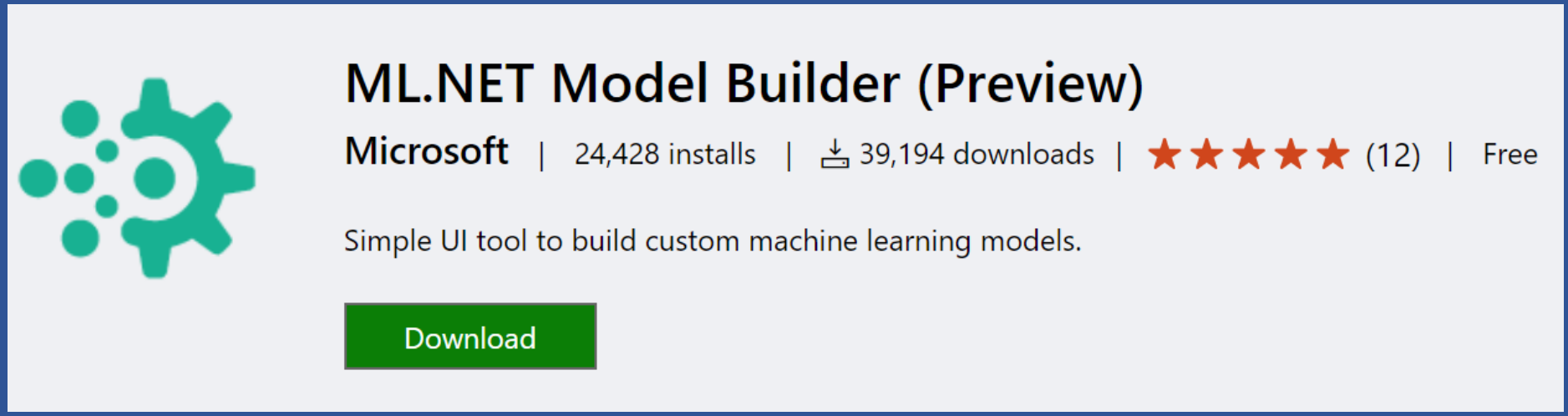
1. Install ML.NET Model Builder
2. Create new .NET CORE console project and add Machine Learning job
3. Pick a Scenario / Price Prediction
4. Set Data File
5. Train 60 seconds
6. Understand Train result
7. Understand evaluation result
8. Generate Code
9. Examine Code

Work Flow

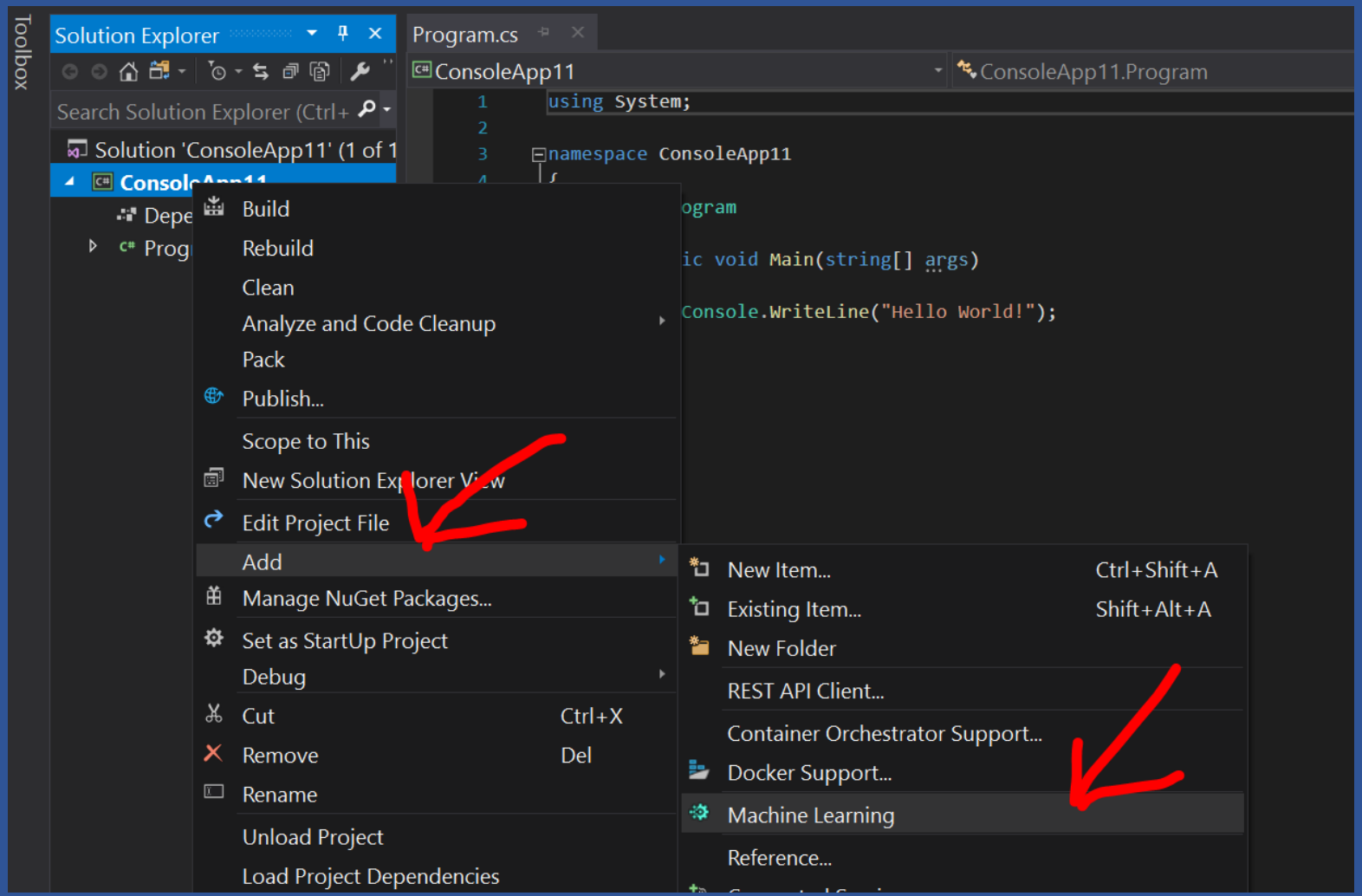


Install ML.NET Model Builder

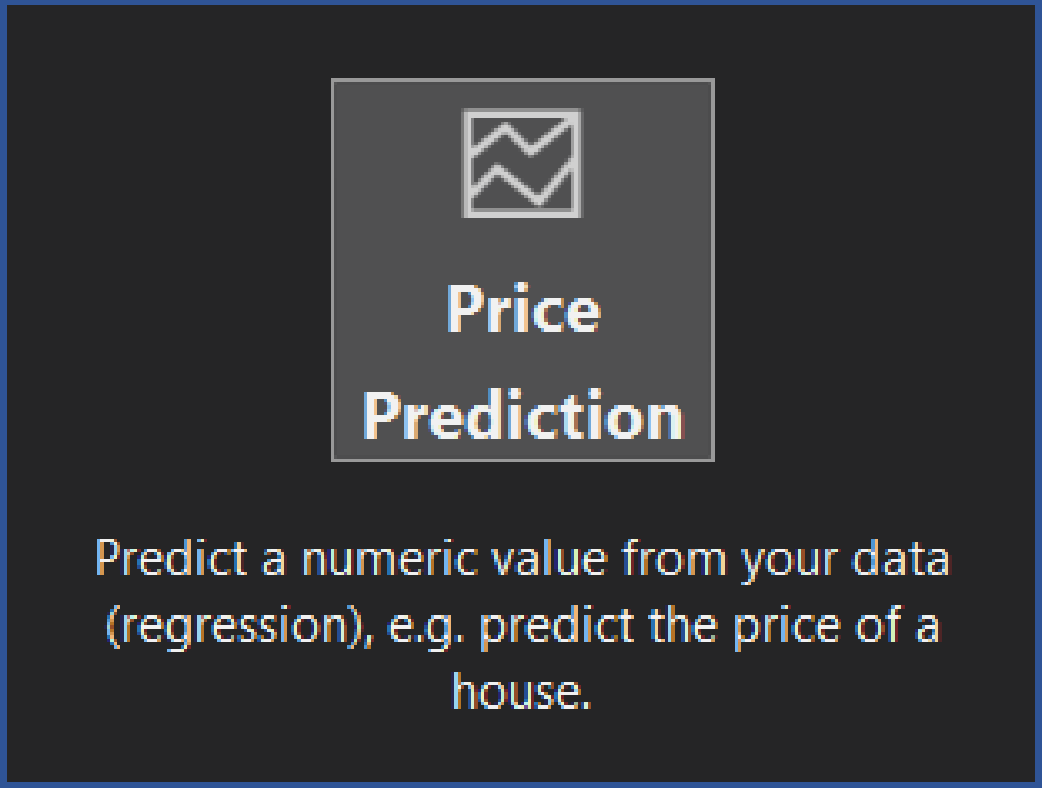
https://marketplace.visualstudio.com/items?itemName=MLNET.07



Create new .NET CORE console project and add Machine Learning

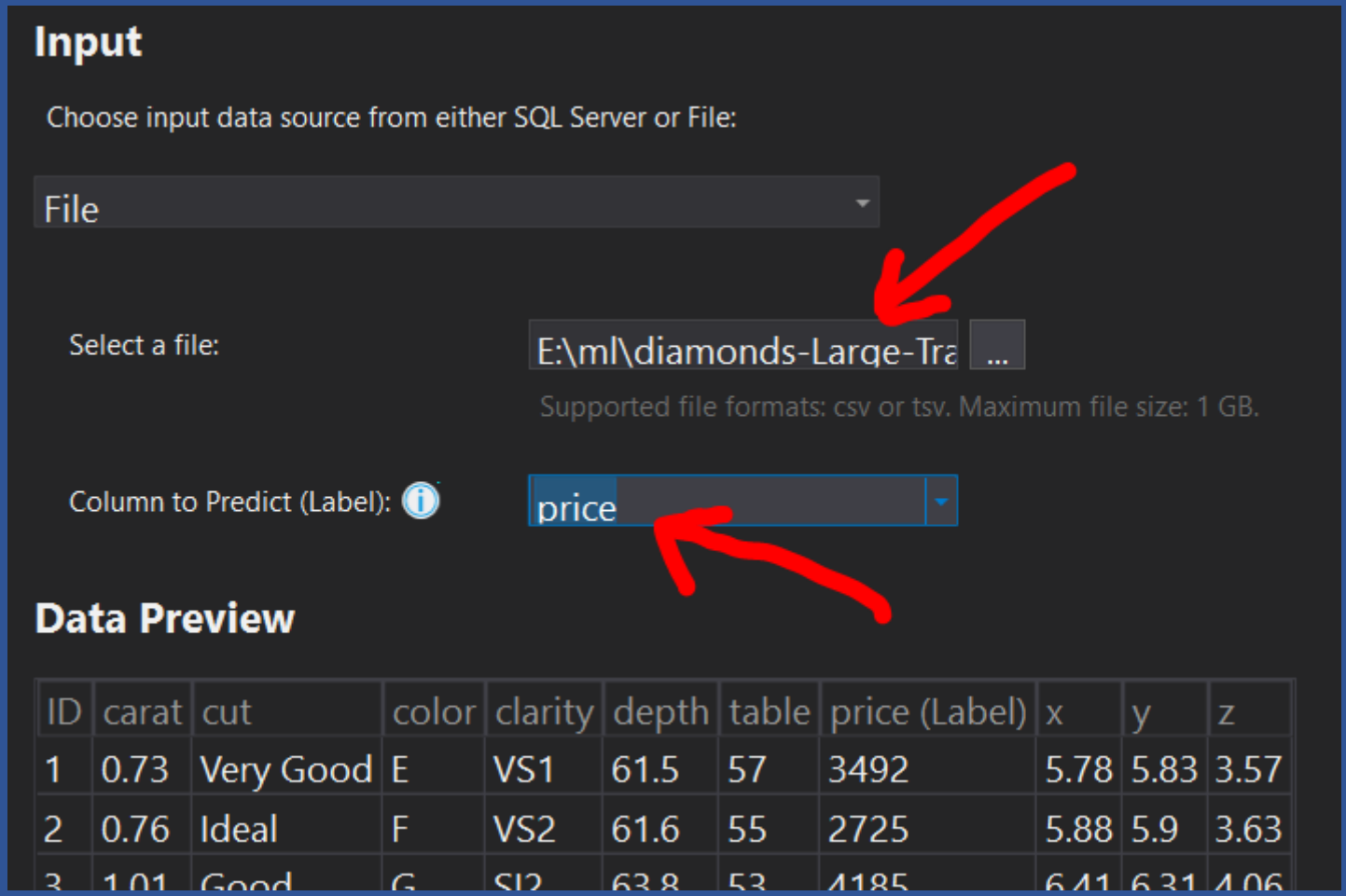


Pick a Scenario / Price Prediction

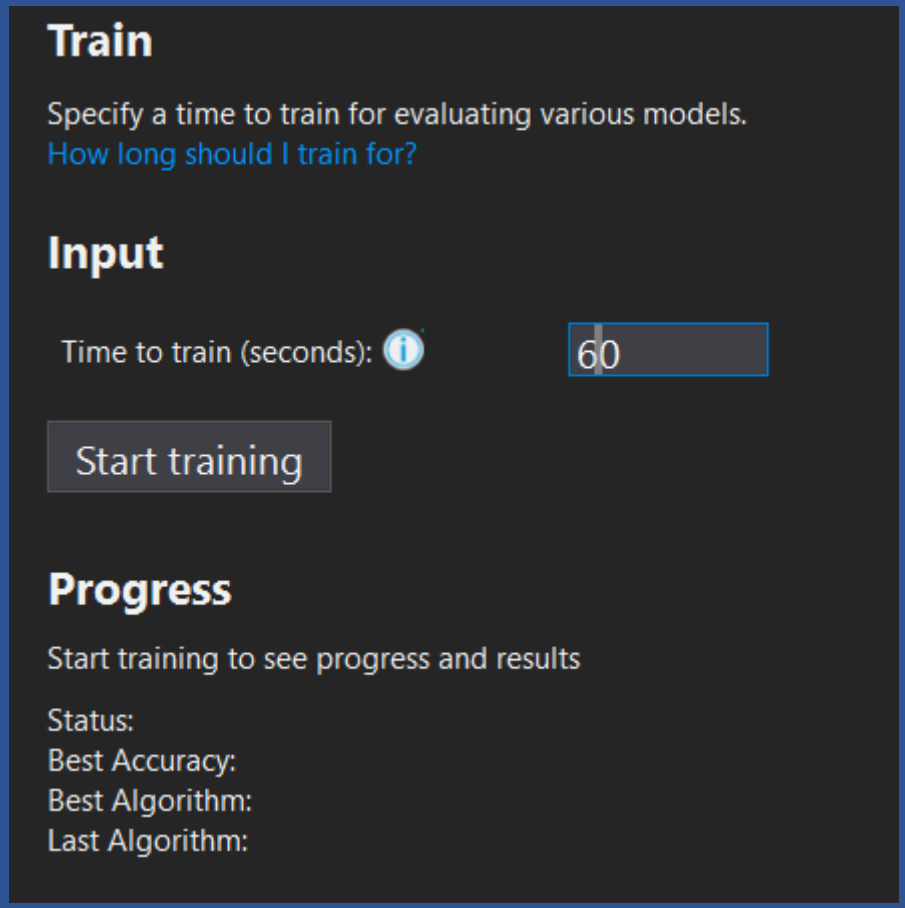


Set Data File

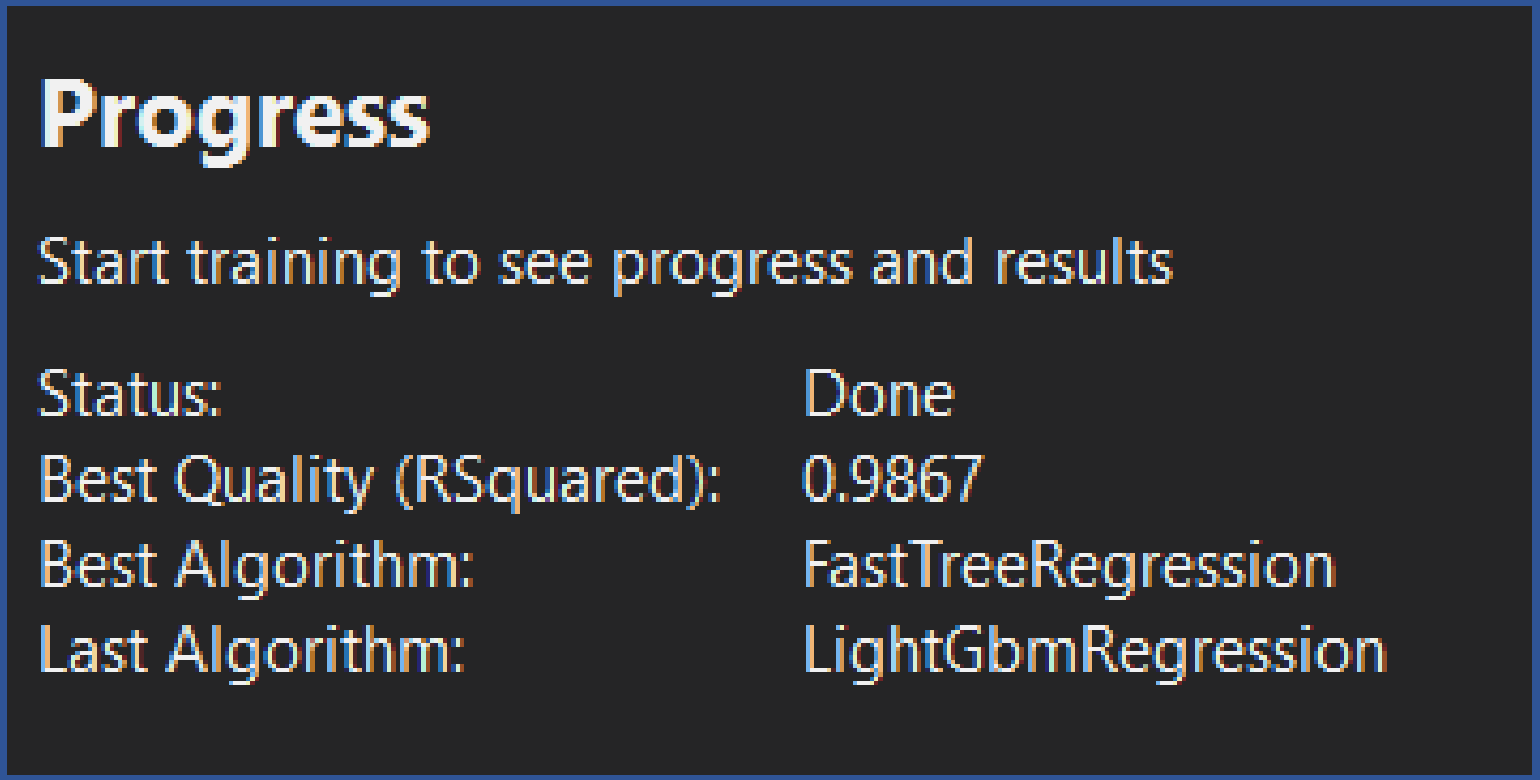
Data / File / diamonds-Large-Train.csv
Label = price



Train 60 seconds



Understand Train result



Understand evaluation result

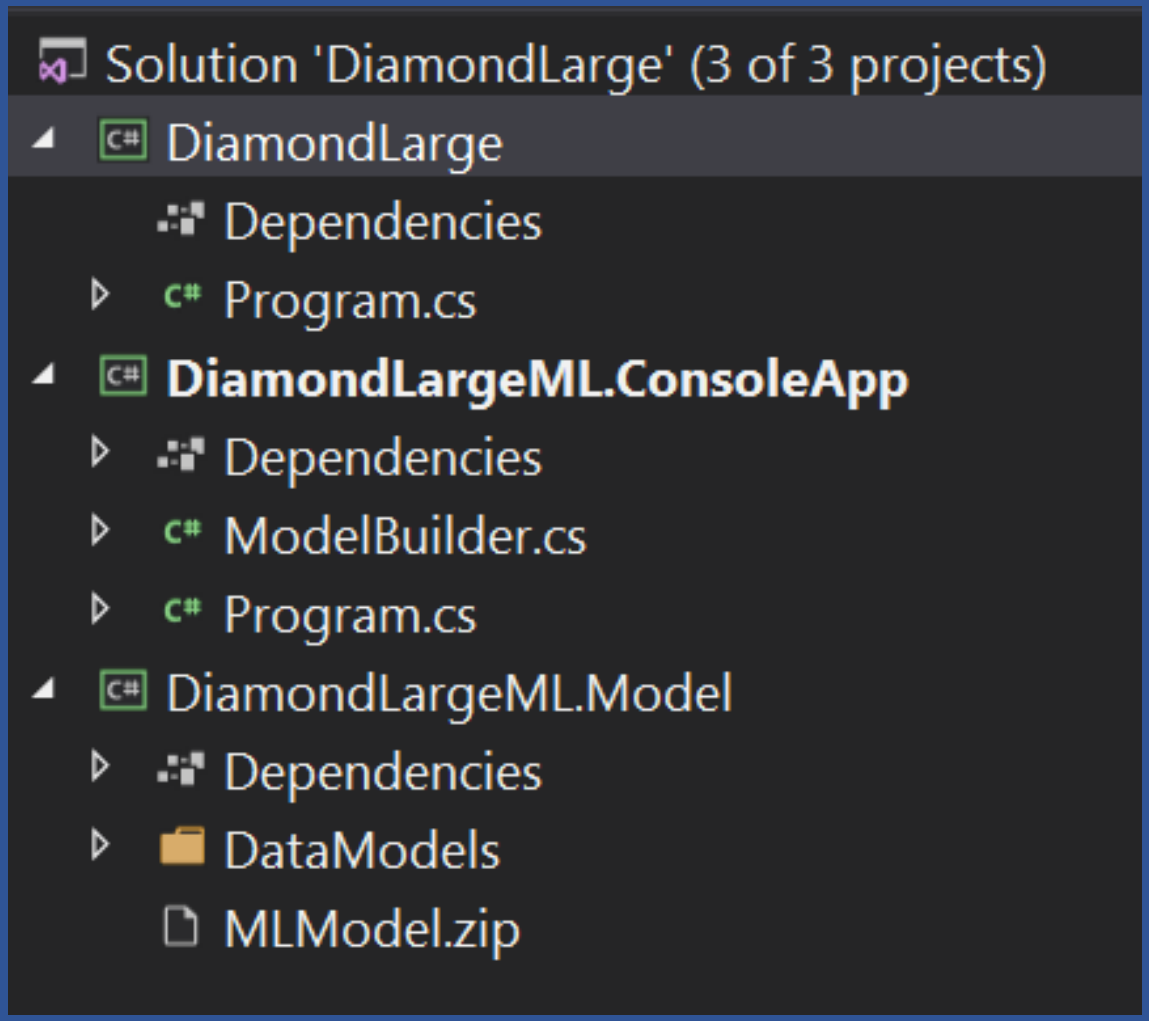
Output

ML Task:	regression
Dataset:	diamonds-Large-Train.csv
Column to Predict (Label):	price
Best Model:	FastTreeRegression
Best Model Quality (RSquared):	0.9867
Training Time:	60.79 seconds
Models Explored (Total):	69

Top 5 models explored

Rank	Trainer	RSquared	Absolute-loss	Squared-loss	RMS-loss	Duration
1	FastTreeRegression	0.9867	228.93	218072.62	466.98	2.6
2	LightGbmRegression	0.9864	242.93	223121.36	472.36	1.3
3	FastTreeRegression	0.9863	249.17	224136.38	473.43	0.7
4	FastTreeTweedieRegression	0.9859	241.03	231117.13	480.75	1.8
5	LightGbmRegression	0.9859	254.49	231287.38	480.92	0.9

Examine Code



Next Step

Write Code to build, train, evaluate, and use ML model