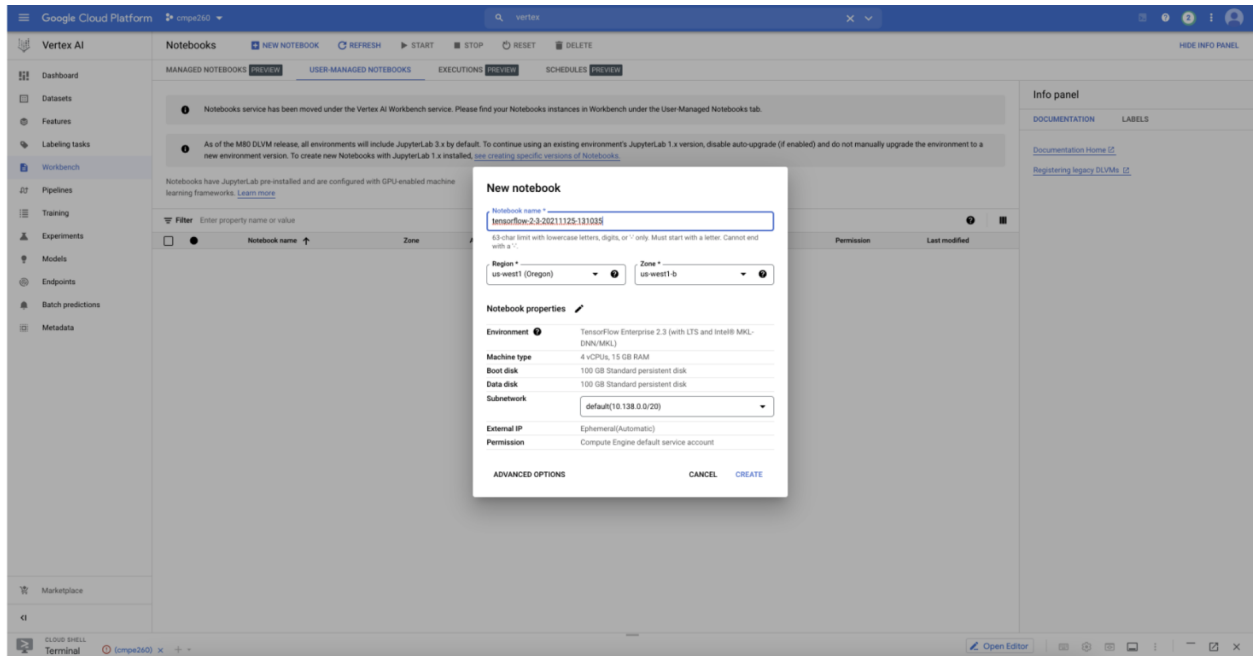


Creating Managed Dataset



console.cloud.google.com/vertex-ai/locations/us-central1/datasets/4192983194477264896/analyze?authuser=3&cloudshell=true&project=cmp260

Google Cloud Platform

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Batch predictions

Metadata

Cloud Shell Terminal (cmp260) x

```
Welcome to Cloud Shell! Type "help" to
view your Cloud Platform project in this
new terminal window.
cmp260@cloudshell:~$
```

Train new model

- Training method
- Model details
- Training options
- Compute and pricing

START TRAINING CANCEL

Feature name	Feature type	Feature value	Feature value	Feature value	Feature value	Feature value	Feature value	Feature value	Feature value
V21	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V22	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V23	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V24	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V25	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V26	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V27	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V28	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V3	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V4	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V5	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V6	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V7	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V8	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-
V9	Automatic	FLOAT	NULLABLE	-	-	-	-	-	-

Rows per page: 50 1 - 31 of 31

Total 31 feature columns are included in the training

Weight column

Select a column

Optimization objective

☐ AUC ROC
Distinguish between classes

☐ Log loss
Keeps prediction probabilities as accurate as possible

☒ AUC PRC
Maximize precision-recall for the less common class

☐ Precision
At recall

☐ Recall
At precision

SHOW LESS

CONTINUE

console.cloud.google.com/vertex-ai/locations/us-central1/datasets/4192983194477264896/analyze?authuser=3&cloudshell=true&project=cmp260

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START TRAINING CANCEL

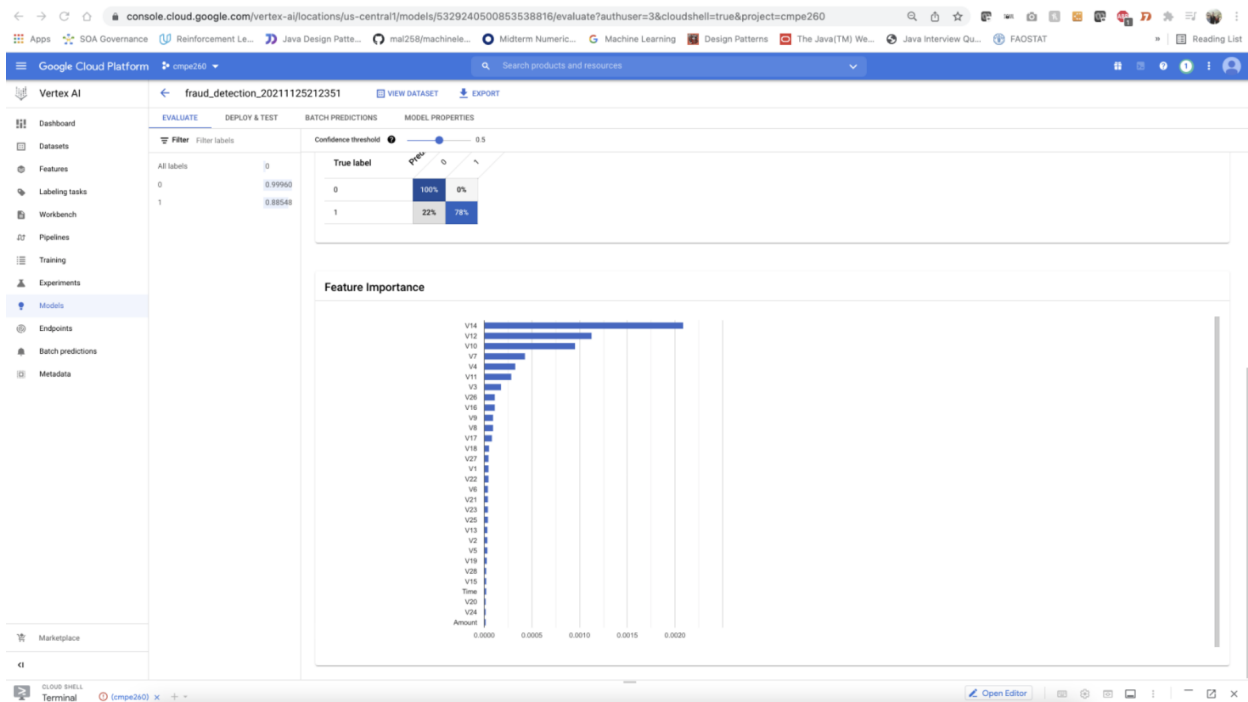
Enter the **maximum** number of node hours you want to spend training your model.

You can train for as little as 1 node hour. You may also be eligible to train with free node hours. [Pricing guide](#)

Budget * 1 Maximum node hours ?

Estimated completion date: Nov 25, 2021 3 PM GMT-8

☒ **Enable early stopping**
Ends model training when no more improvements can be made and refunds leftover training budget. If early stopping is disabled, training continues until the budget is exhausted.



Deploying model and endpoint testing

Deploy to endpoint

Define your endpoint | **Model settings** | Model monitoring

Model settings

Model name: fraud_detection_20211125212351

Traffic split: 100%

Compute resources

Choose how compute resources will serve prediction traffic to your model

- Autoscaling**: If you set a minimum and maximum, compute nodes will scale to meet traffic demand within those boundaries
- No scaling**: If you only set a minimum, then that number of compute nodes will always run regardless of traffic demand (the maximum will be set to minimum)

Once scaling settings are set, they can't be changed unless you redeploy the model. [Pricing guide](#)

Minimum number of compute nodes: 1

Default is 1. If set to 1 or more, then compute resources will continuously run even without traffic demand. This can increase cost but avoid dropped requests due to node initialization.

Maximum number of compute nodes (optional)

Enter a number equal to or greater than the minimum nodes. Can reduce costs but may cause reliability issues for high traffic.

ADVANCED SCALING OPTIONS

Machine type: n1-standard-8, 8 vCPUs, 30 GiB memory

Logging

Logging settings are permanent for this endpoint, and Cloud Logging charges will apply. To change your logging preference in the future, create a new endpoint. [Learn more](#)

☒ Enable access logging for this endpoint

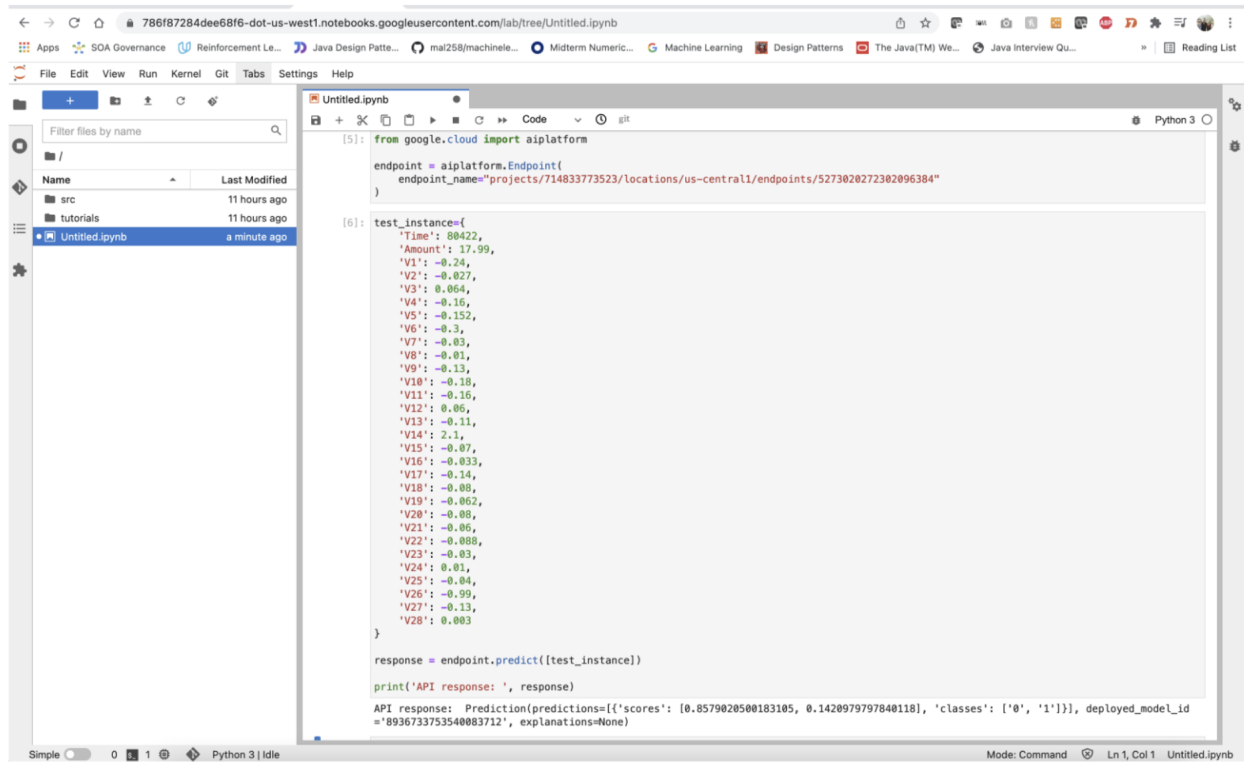
☐ Disable container logging for this endpoint

Explainability options

☒ Enable feature attributions for this model

This feature is enabled because this model was imported with explainability settings. Explainability will incur additional costs. To disable, you will need to [import a new model and specify "None" as the feature attributions method.](#)

Model Predictions with the Vertex AI API



The screenshot shows a Google Colab notebook titled "Untitled.ipynb" in the Python 3 environment. The notebook is open in "Simple" mode. The left sidebar shows a file explorer with a directory structure: "/" (root), "src" (11 hours ago), "tutorials" (11 hours ago), and "Untitled.ipynb" (a minute ago). The main code area contains the following Python code:

```
[5]: from google.cloud import aiplatform

endpoint = aiplatform.Endpoint(
    endpoint_name="projects/714833773523/locations/us-central1/endpoints/5273020272302096384"
)

[6]: test_instance={
    'Time': 80422,
    'Amount': 17.99,
    'V1': -0.24,
    'V2': -0.027,
    'V3': 0.064,
    'V4': -0.16,
    'V5': -0.152,
    'V6': -0.3,
    'V7': -0.03,
    'V8': -0.01,
    'V9': -0.13,
    'V10': -0.18,
    'V11': -0.16,
    'V12': 0.06,
    'V13': -0.11,
    'V14': 2.1,
    'V15': -0.07,
    'V16': -0.033,
    'V17': -0.14,
    'V18': -0.00,
    'V19': -0.002,
    'V20': -0.08,
    'V21': -0.06,
    'V22': -0.088,
    'V23': -0.03,
    'V24': 0.01,
    'V25': -0.04,
    'V26': -0.99,
    'V27': -0.13,
    'V28': 0.003
}

response = endpoint.predict([test_instance])

print('API response: ', response)

API response: Prediction(predictions=[{'scores': [0.8579020500183105, 0.14209797978401181], 'classes': ['0', '1']}], deployed_model_id="8936733753540083712", explanations=None)
```

The output of the code is displayed at the bottom of the notebook, showing the API response as a Prediction object with scores and classes.