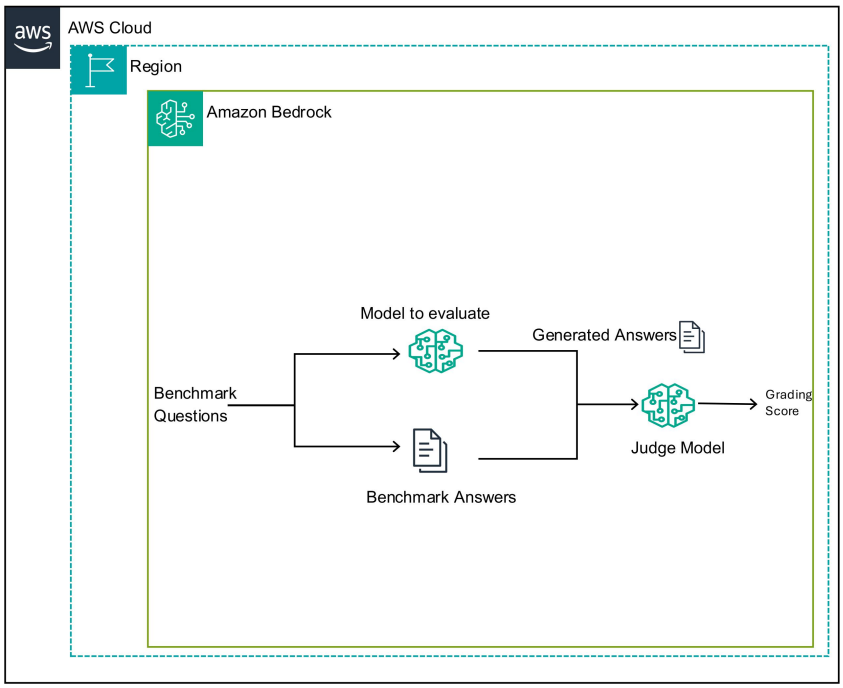
A Step-by-Step Guide to Setting Up and Evaluating Custom Models in Amazon Bedrock



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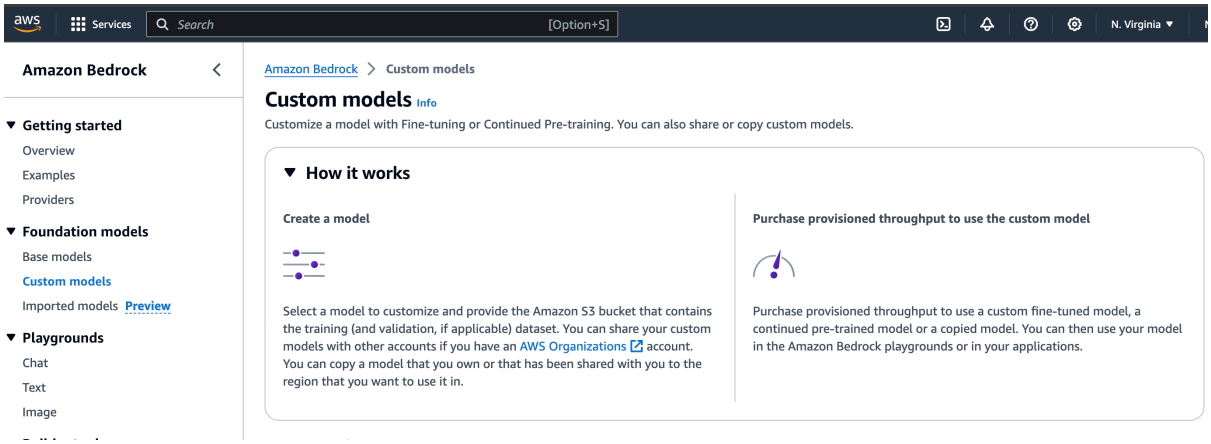
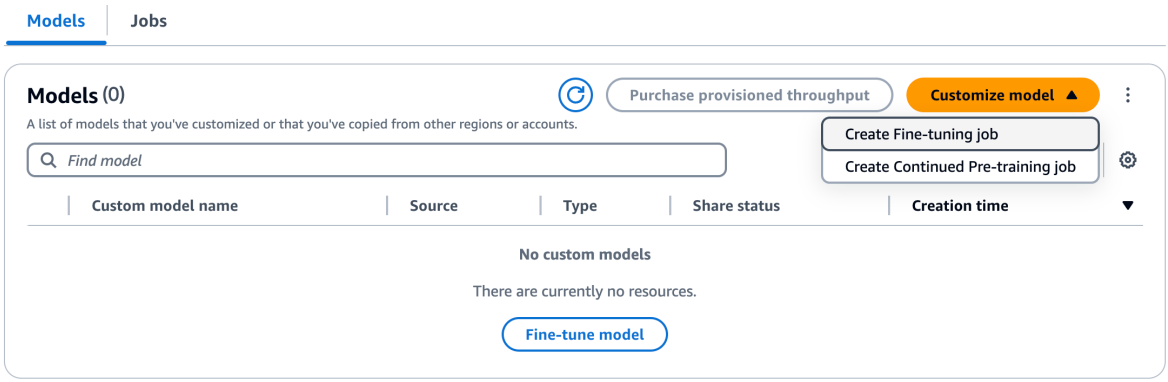
Note: We will not create this custom model due to the HIGH COSTS associated with it. Please do not create one, even if you are practicing. However, we will discuss how to create and evaluate a custom model.

1.Creating Custom Foundation Models

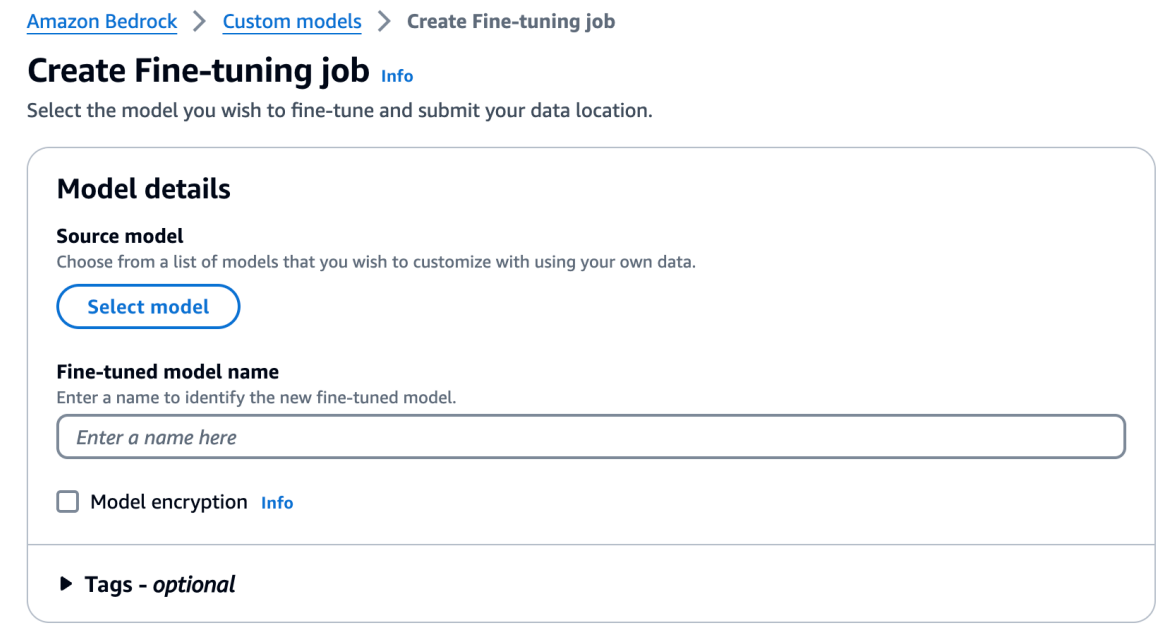
Go to Amazon Bedrock and click on **Custom Models**



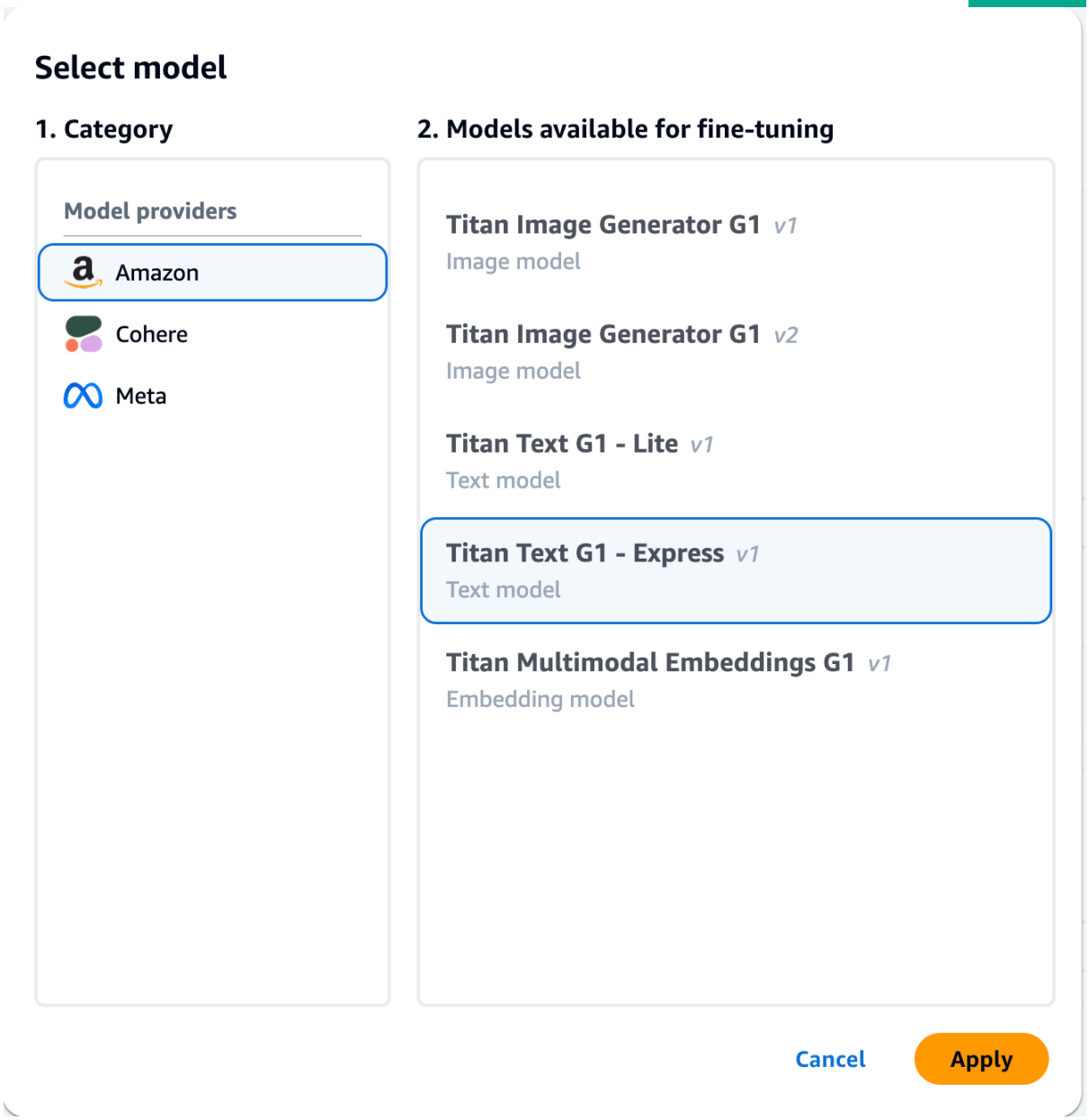
Choose **Create Fine-tuning Job** for a one-time job under **Customize Model**



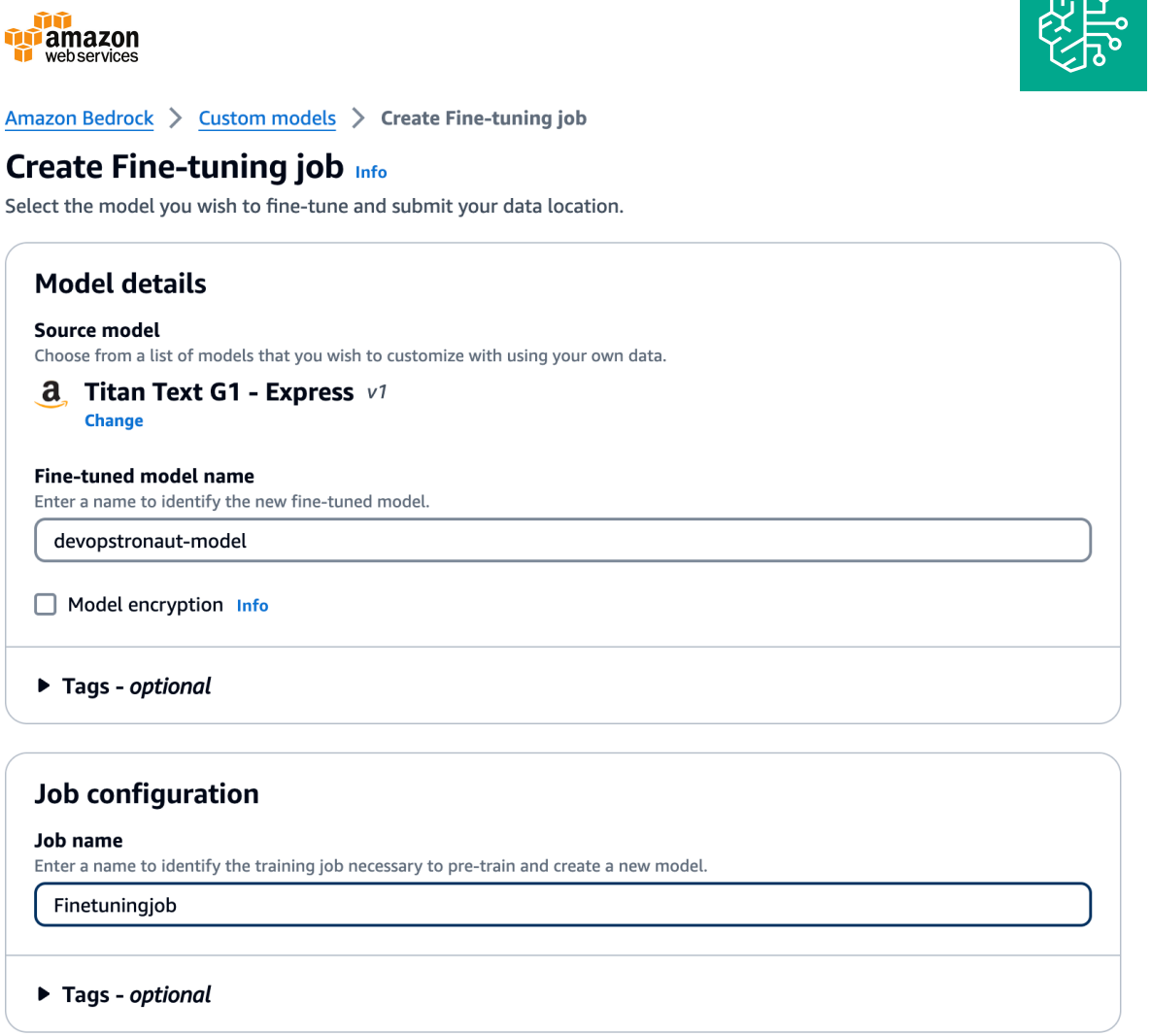
Click **Select Model** under **Source Model**



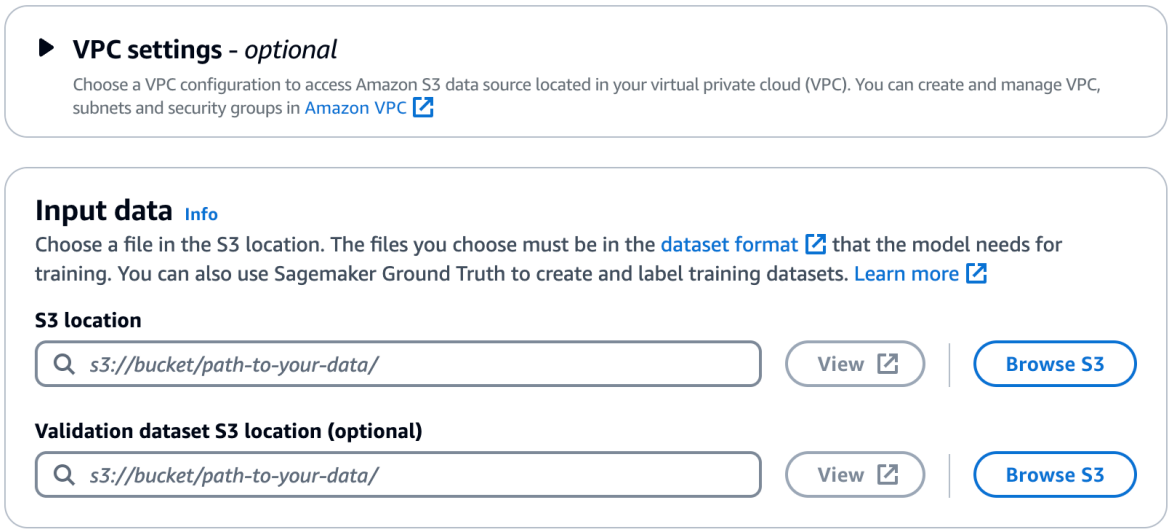
Choose the models available for fine-tuning and click **Apply**



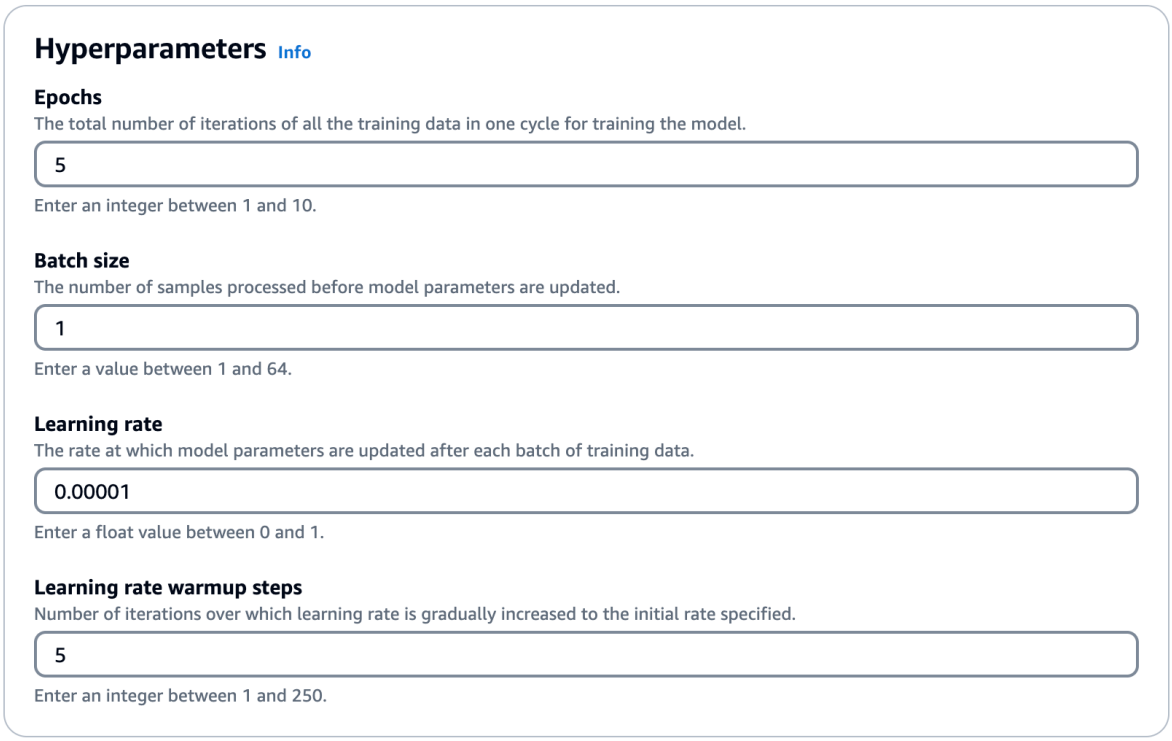
Provide the **Fine-tuned Model Name** and the **Job Name**



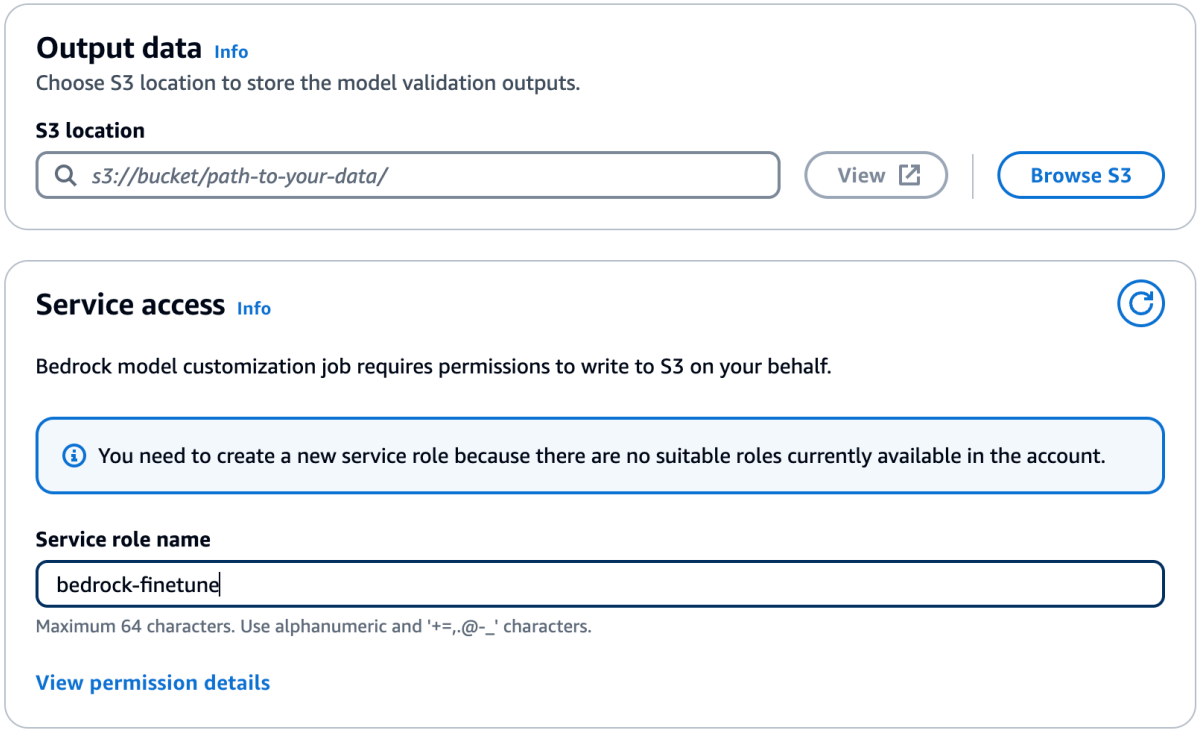
To fine-tune the model, we need input data, which should be provided via Amazon S3



We can leave the hyperparameters as default because this is a machine learning training job



Provide the S3 bucket location for the output data and also specify the service role name for the new role



Click **View Permission Details** to see the permissions

Permission details

Bedrock fine-tuning job requires the following permissions to write to S3 on your behalf.

Trusted entity
bedrock.amazonaws.com

Permissions

Permission policy

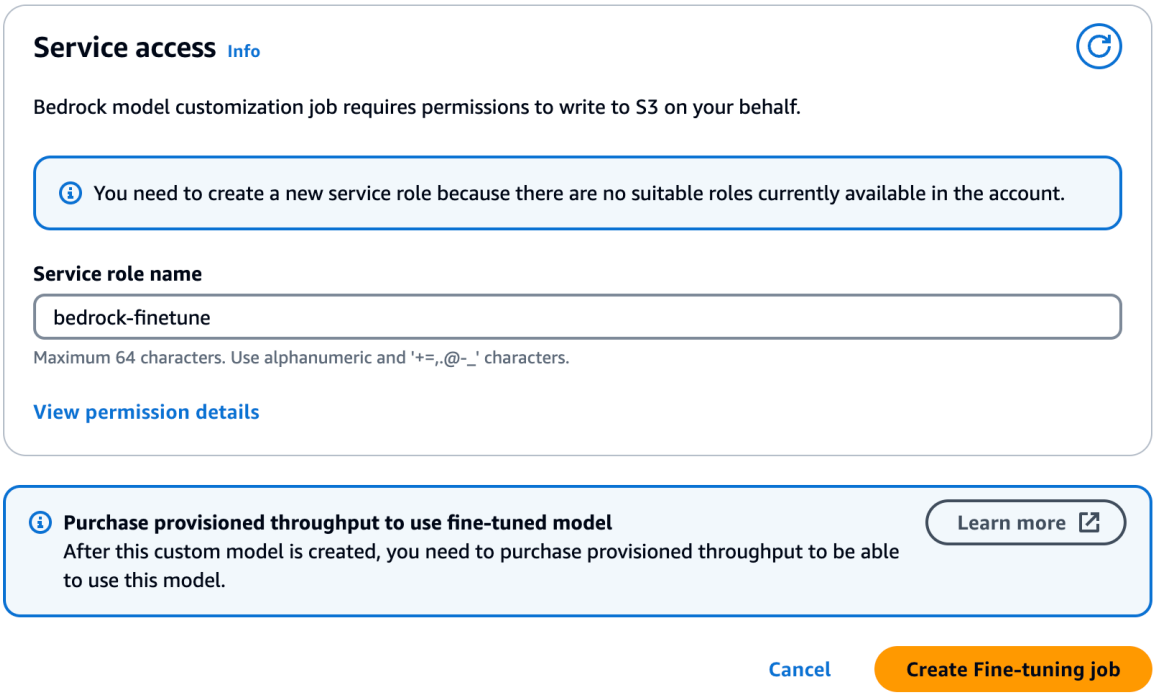
```
{
  "Version": "2012-10-17",
  "Statement": []
}
```

Trust relationship for new service role

Trust relationship

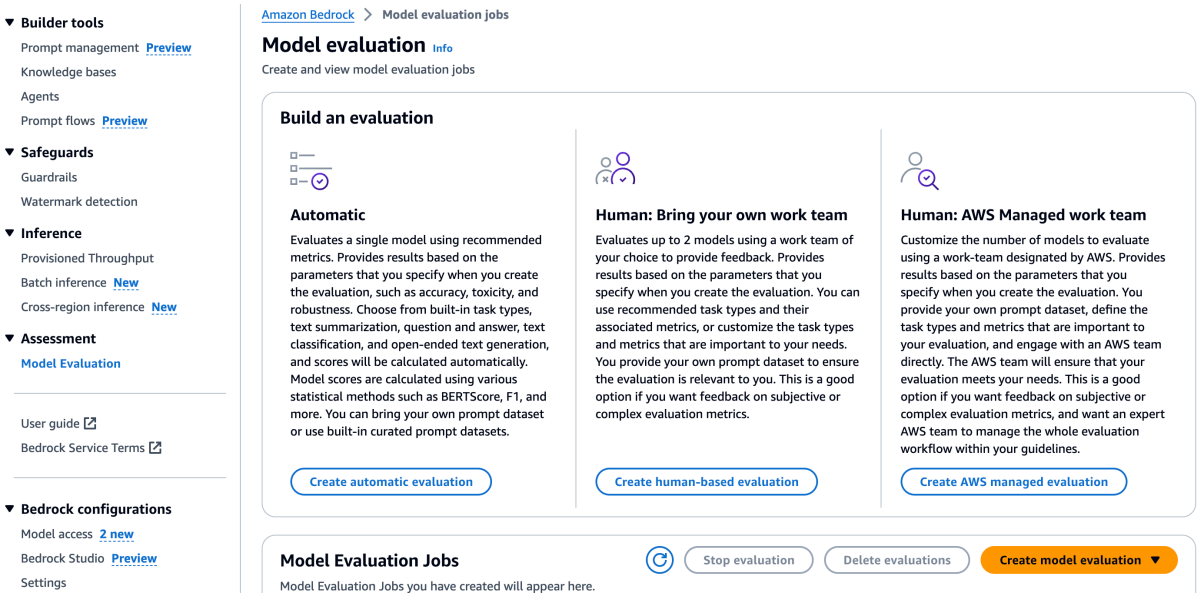
```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "Service": "bedrock.amazonaws.com"
      },
      "Action": "sts:AssumeRole",
      "Condition": {
        "StringEquals": {
          "aws:SourceAccount": "851725583489"
        },
        "ArnEquals": {
          "aws:SourceArn": "arn:aws:bedrock:us-east-1:851725583489:model-customization-job/*"
        }
      }
    }
  ]
}
```

Don’t create this, as we need to purchase provisioned throughput to use the custom model, which incurs hourly-based costs that can be high

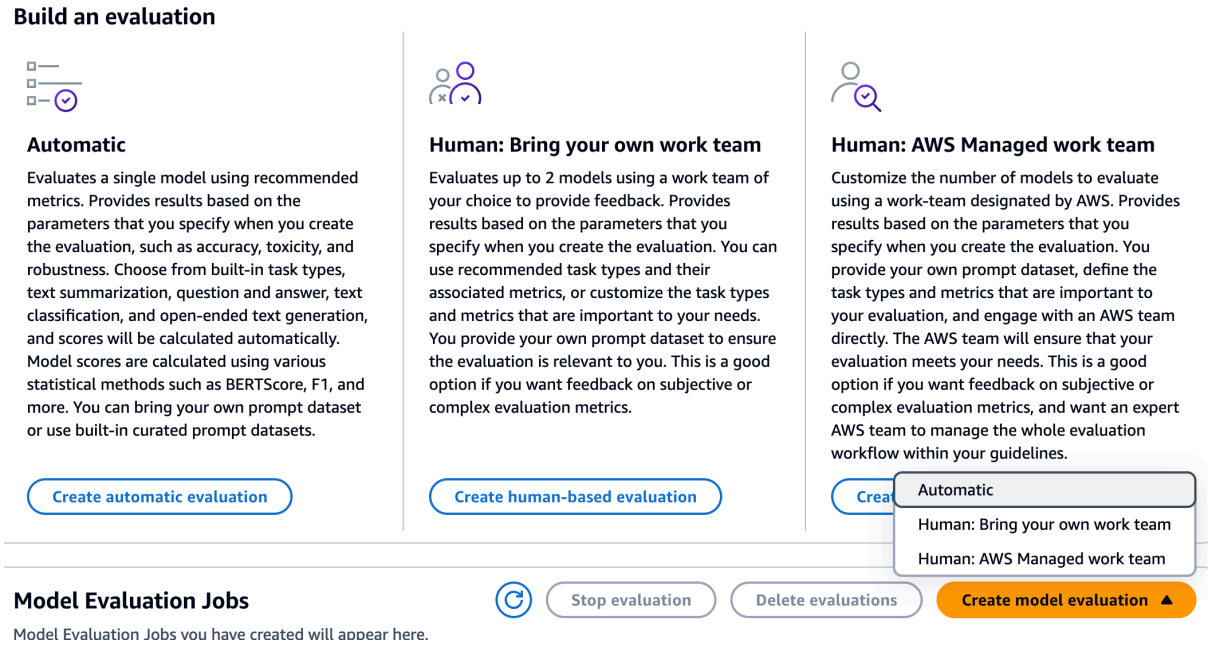


2.Foundation Model Evaluation

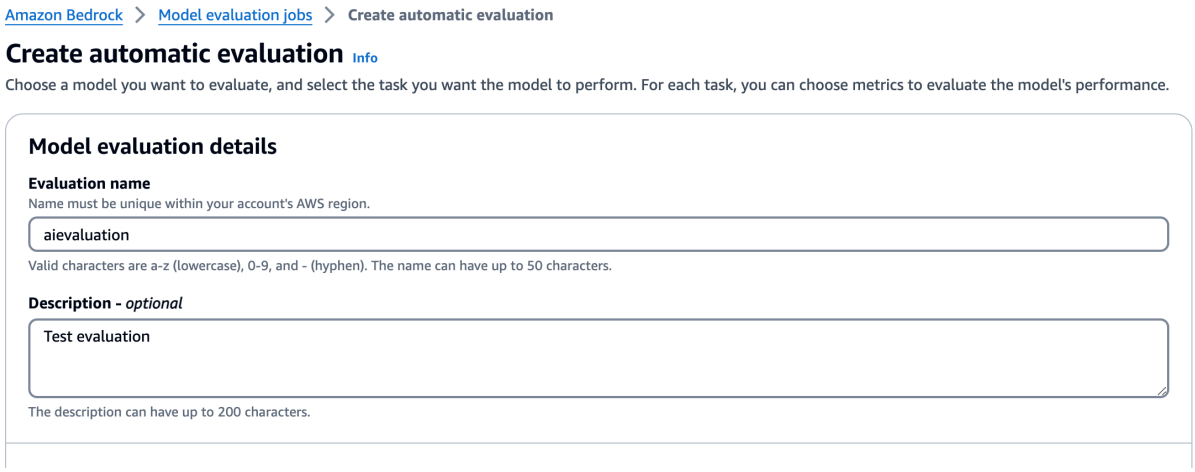
To evaluate the foundation models, click **Create Model Evaluation**



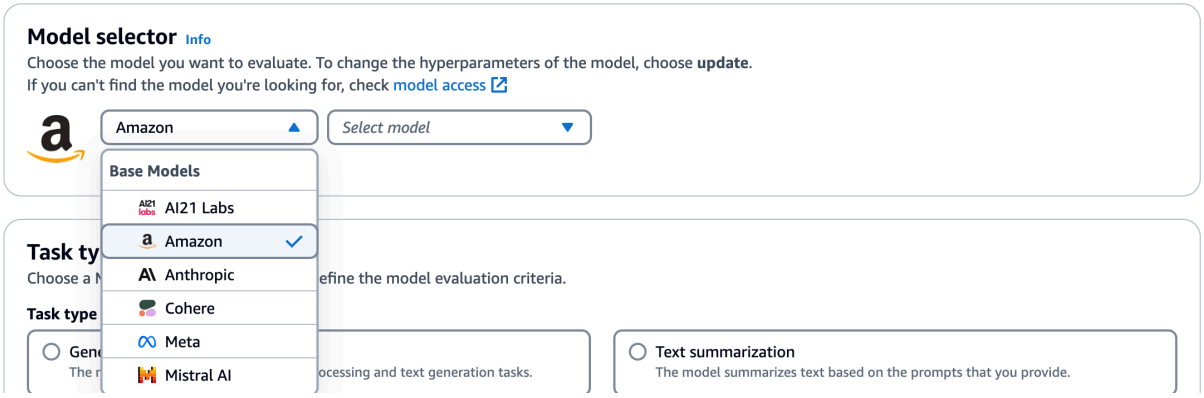
Choose **Automatic** in **Create Model Evaluation**



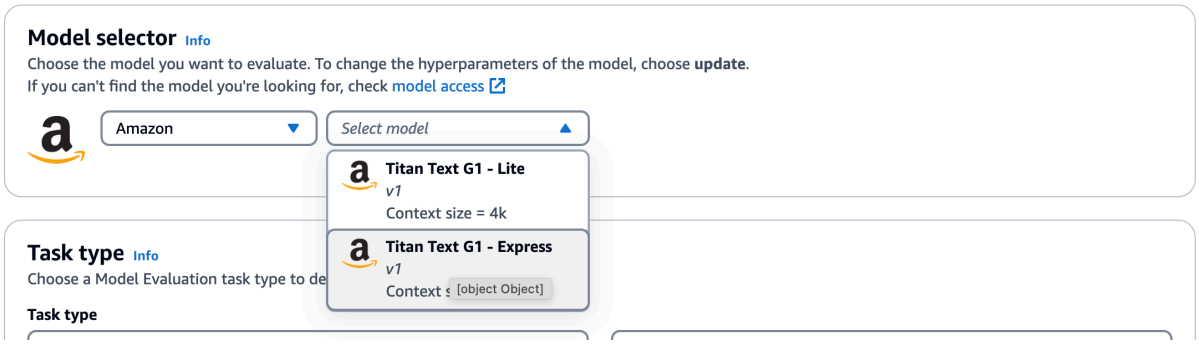
Provide the **Evaluation Name** and a description



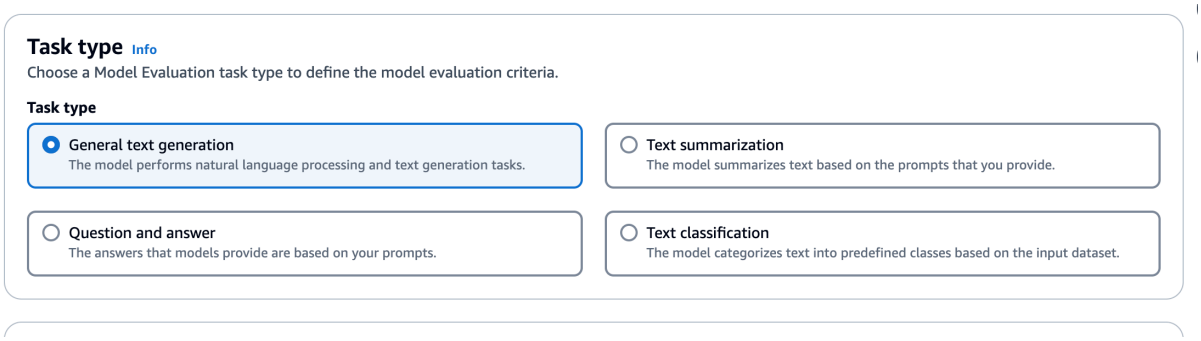
Select **Base Model** as **Amazon**



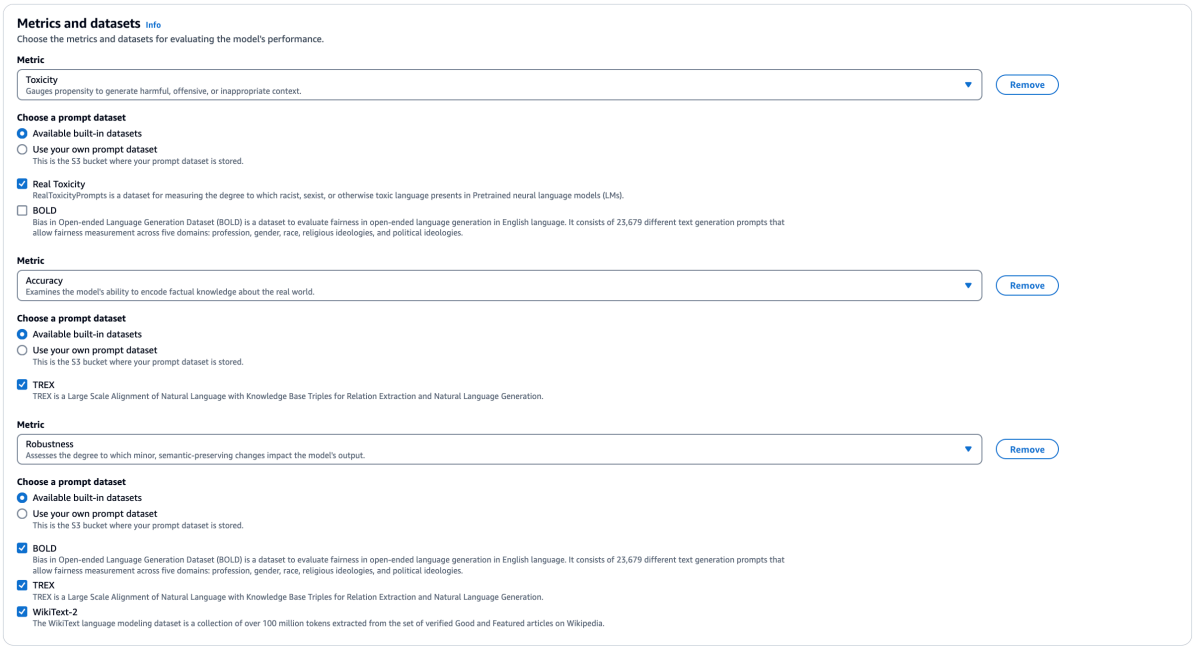
Select **Model**



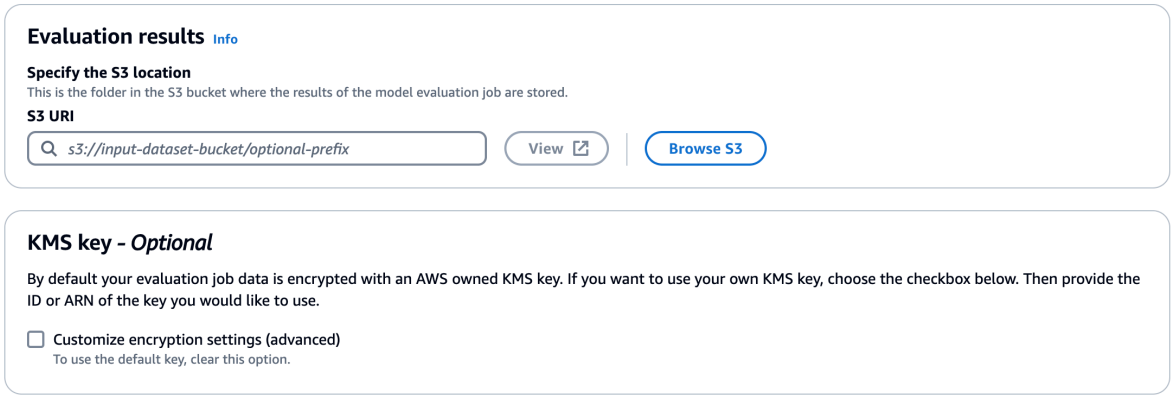
Choose **Task Type** as **General Text Generation**



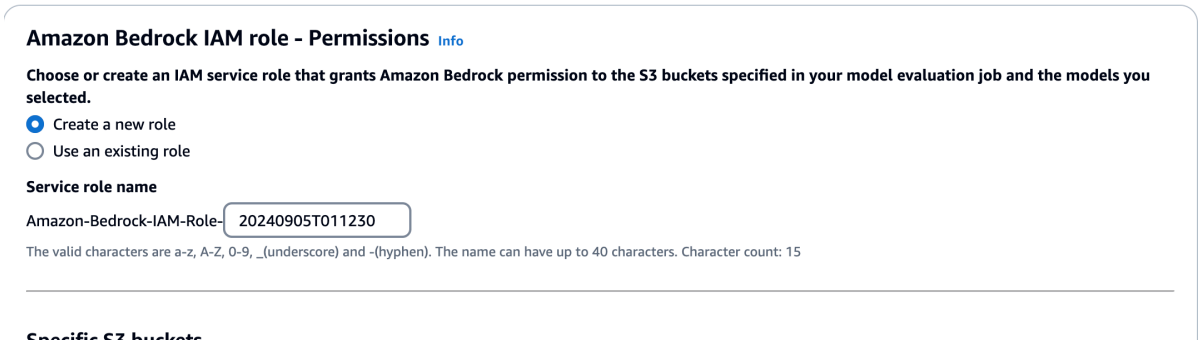
Choose **Metrics** and **Prompt Dataset** as **Available Built-in Datasets**



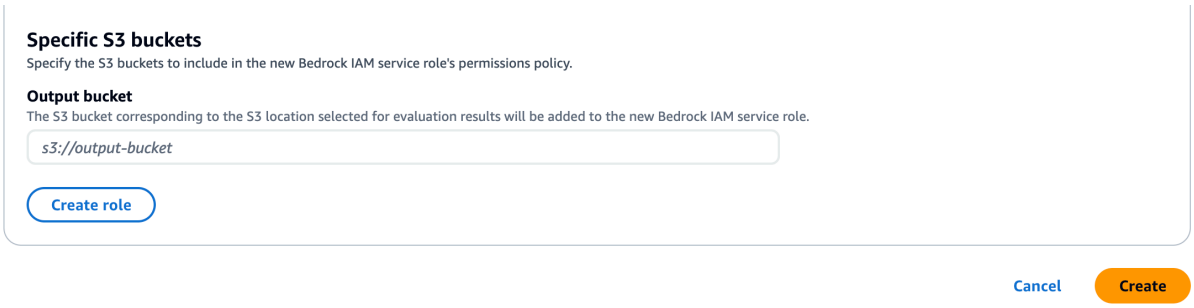
Provide the S3 bucket location to store the evaluation results



Choose **Create a New Role** that grants Amazon Bedrock the necessary permissions to access S3 buckets. If the IAM role doesn't have the required permissions



Provide the S3 bucket for output, and don’t click Create, as it will incur high costs



Keep Learning, Keep A!!!

Feel free to reach out to me, if you have any other queries or suggestions

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