Lab 37

Classroom Activity: Getting started with Azure ML Designer

What is Azure ML Designer?

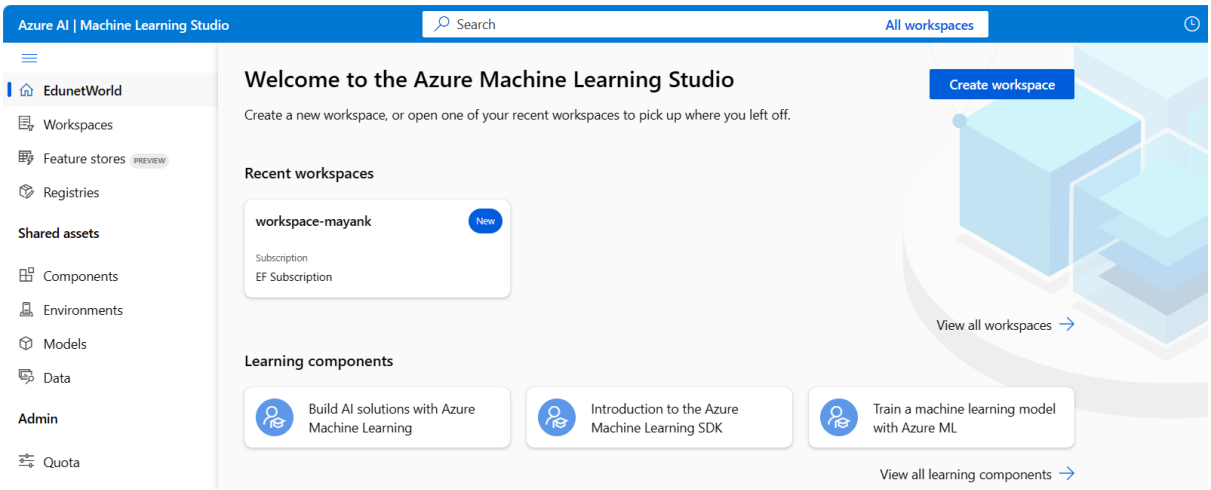
- Azure ML Designer is a visual interface for building, testing, and deploying machine learning models on Azure.
- It's designed for data scientists, analysts, and developers to collaborate and create ML pipelines without writing code.
- With a drag-and-drop interface, it simplifies the ML workflow and accelerates model development.

Key Features

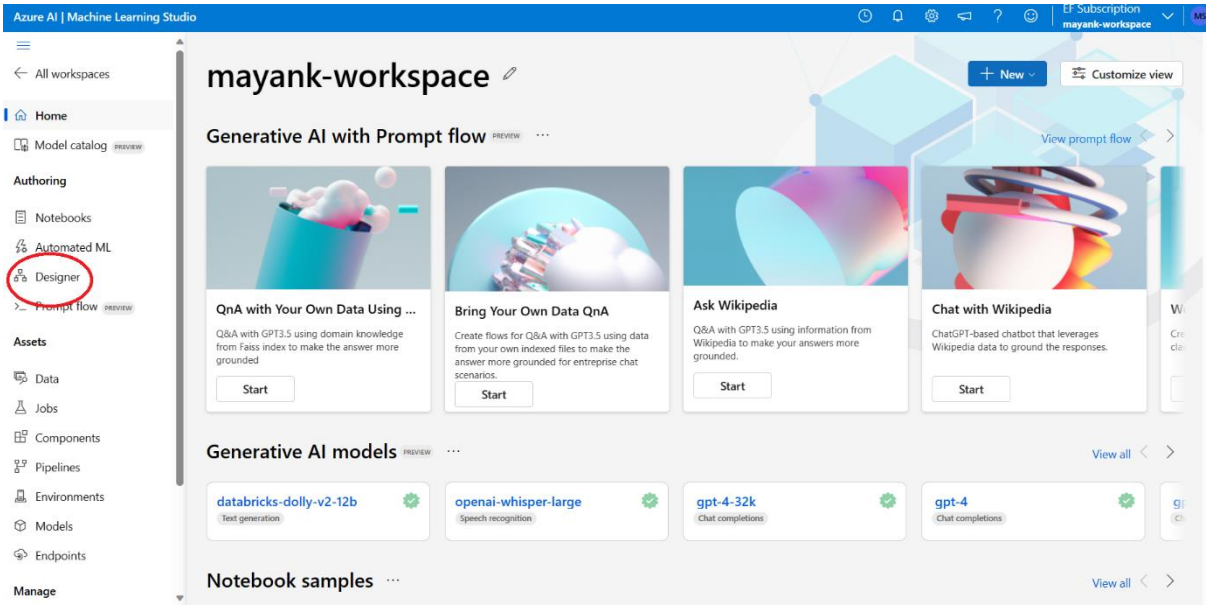
- Drag-and-Drop Interface: Easily connect and configure modules using a visual interface.
- Data Integration: Connect to various data sources, preprocess data, and explore it.
- Model Building: Build, train, and evaluate machine learning models.

Steps

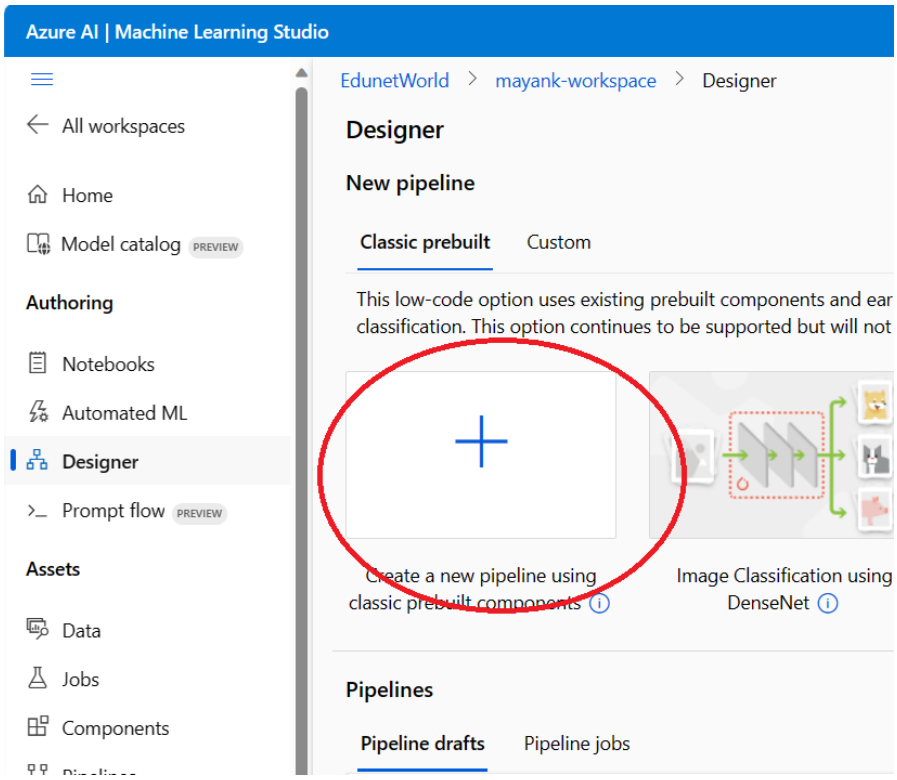
- **Step 1: Access Azure ML Studio**: Log in ml.azure.com
- **Step 2: Create a New Workspace**: Create an Azure Machine Learning workspace by clicking on **Create workspace**.



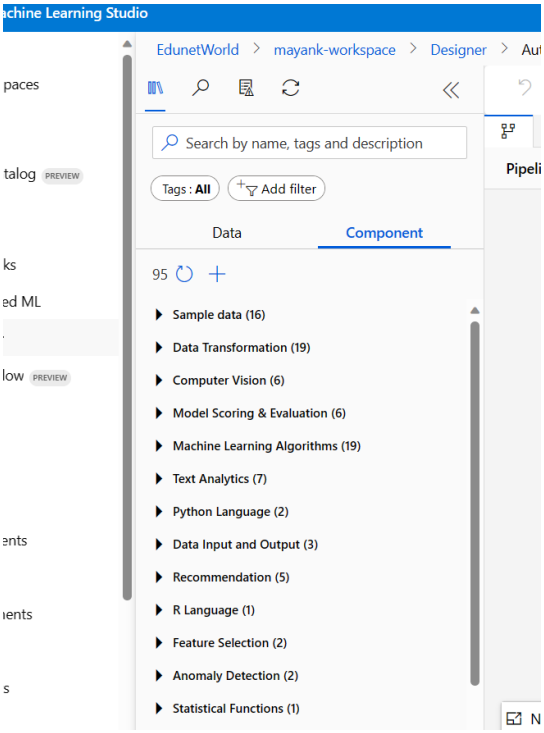
- **Step 3: Open Azure ML Designer**: In your workspace, navigate to Azure ML Designer from the left pane.



- **Step 4: Create a New Pipeline**: Start building your ML pipeline.

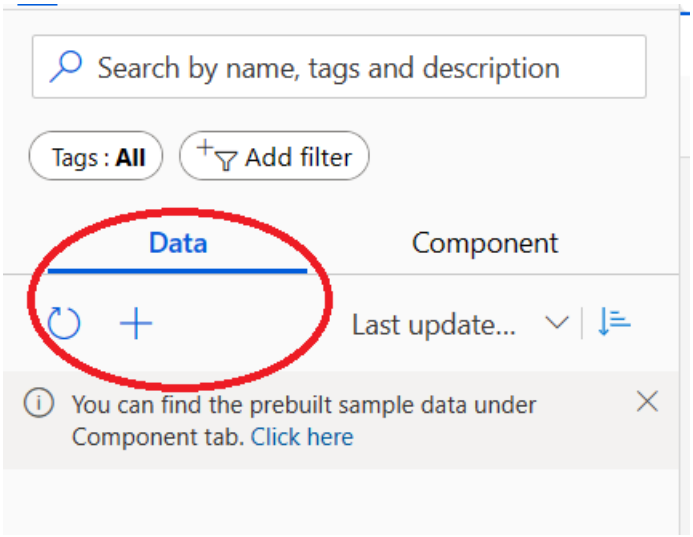


- **Step 5: Create a Classification model using prebuilt components**:

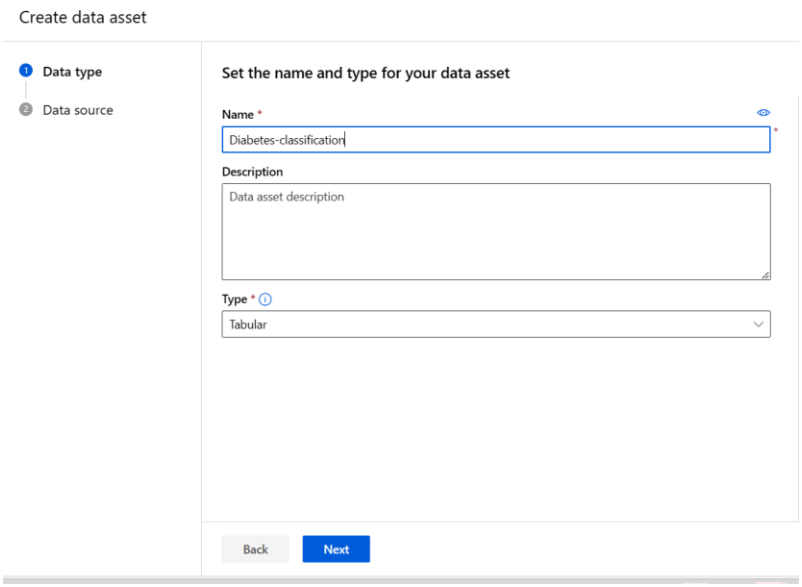


- **Step 6: Upload your dataset or use an existing dataset.**

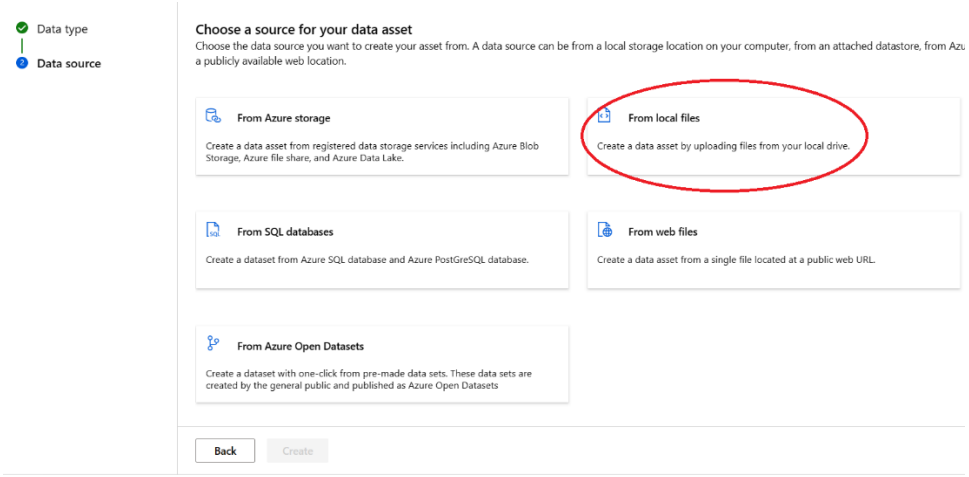
  To upload a local dataset, click on Data Tab and then +.



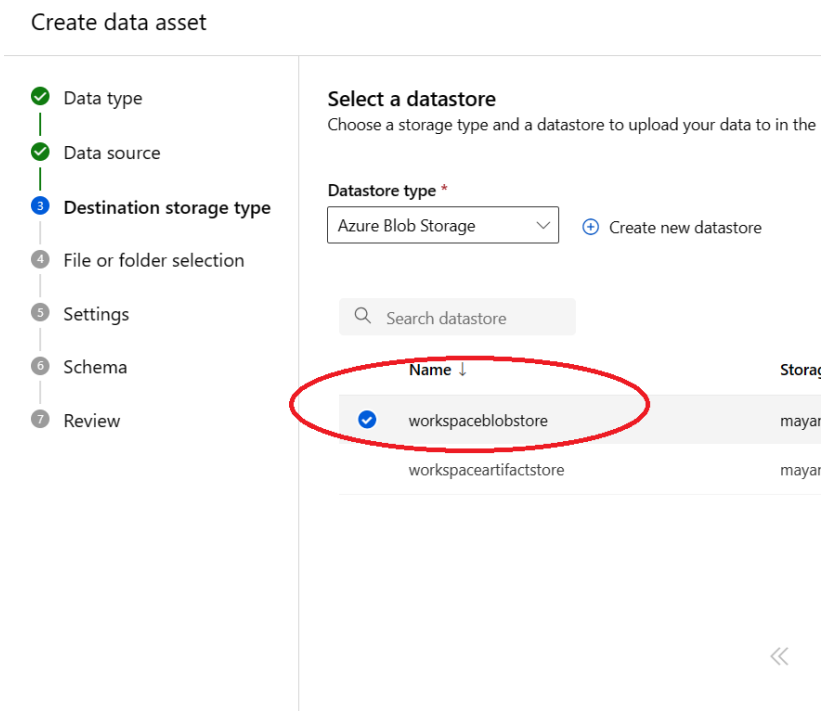
  Provide the respective details. Click on next.



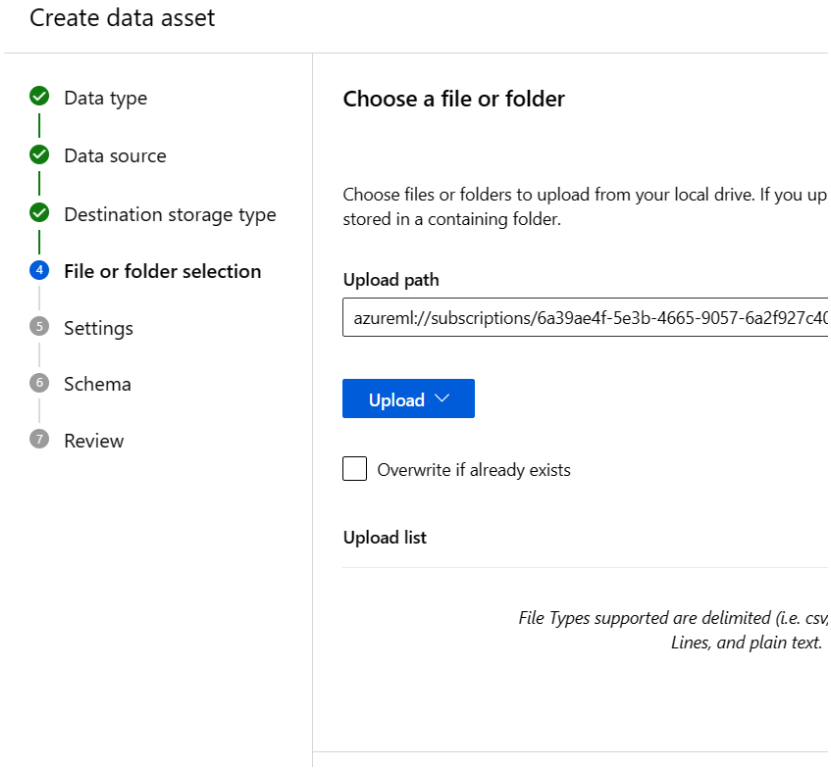
Select **From local files**. Click **Next**.



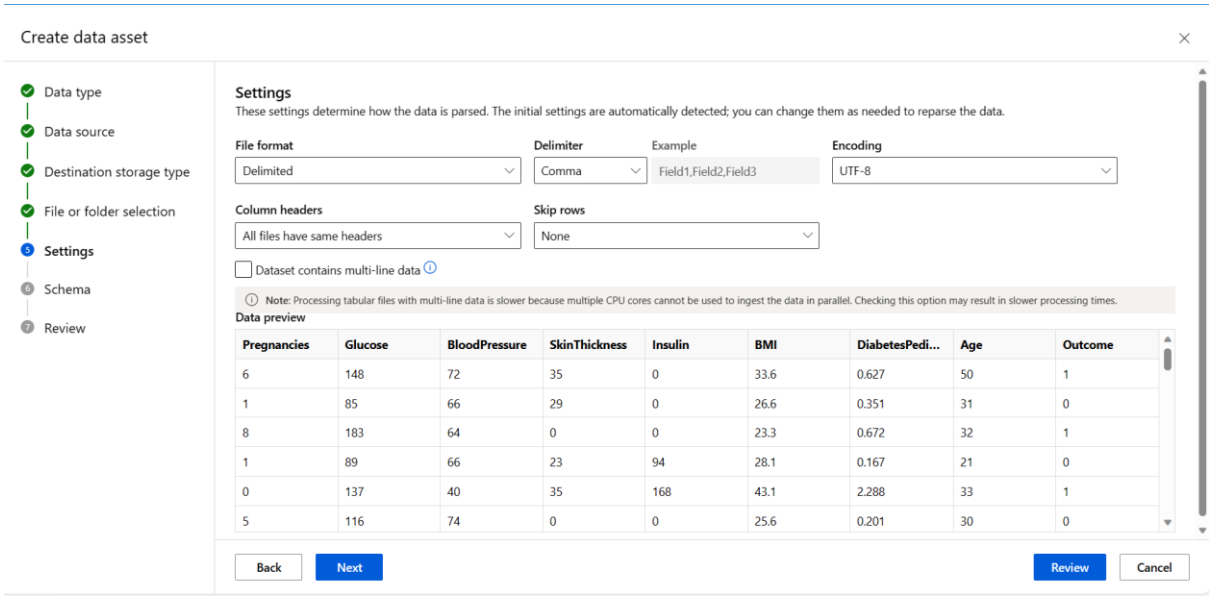
Select default **workspaceblobstore**.



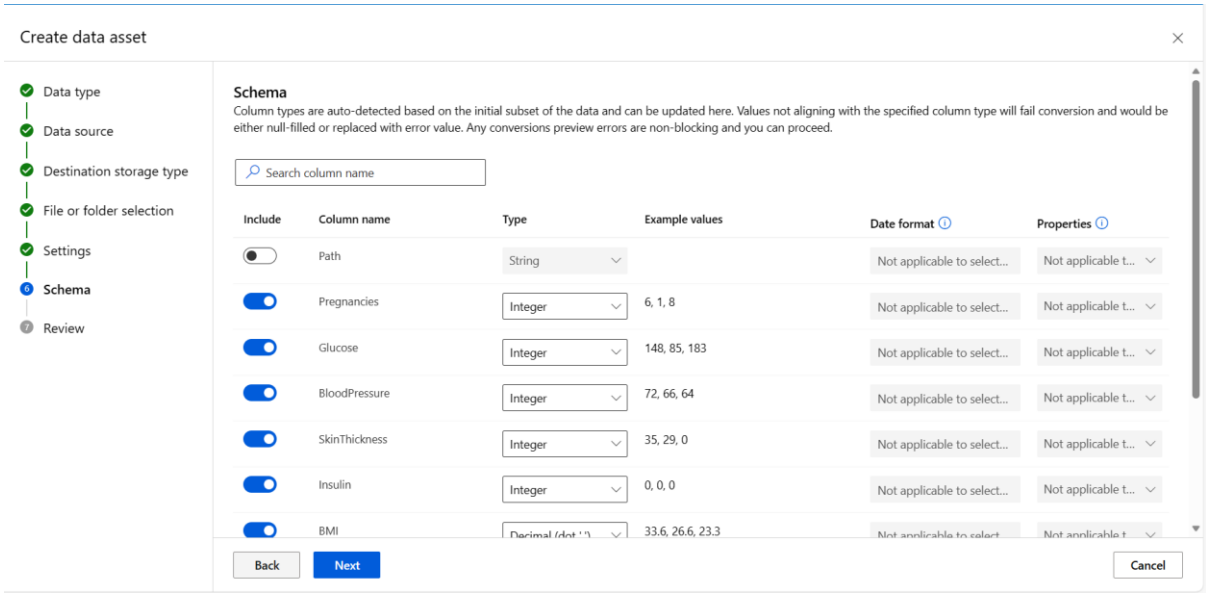
Click on **Upload**. Select your file and click next.



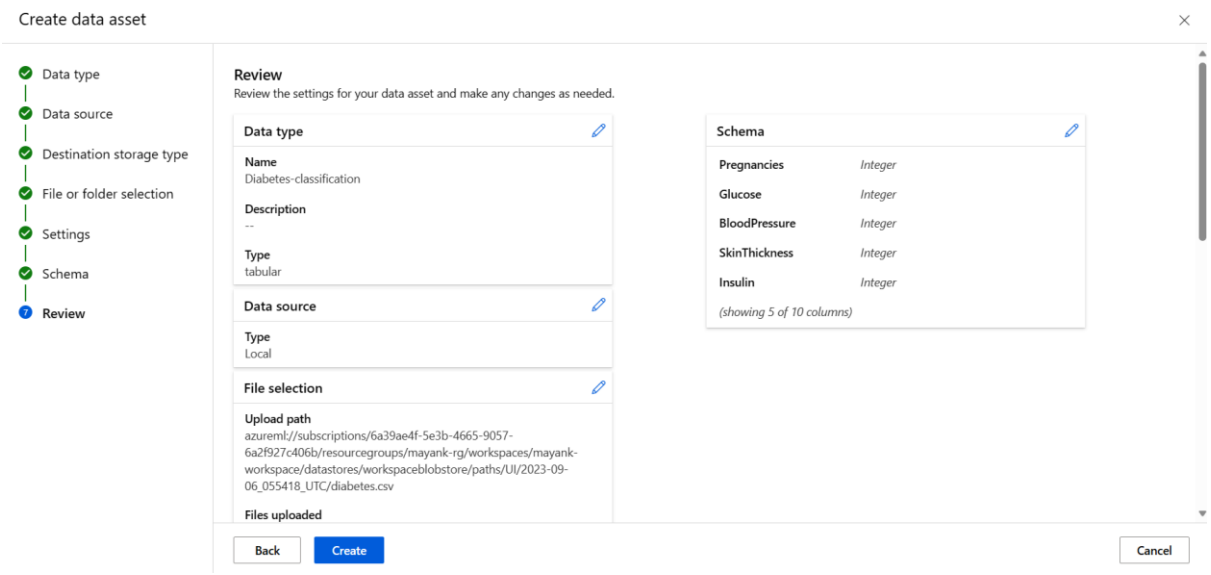
After Uploading the file next screen looks like this.



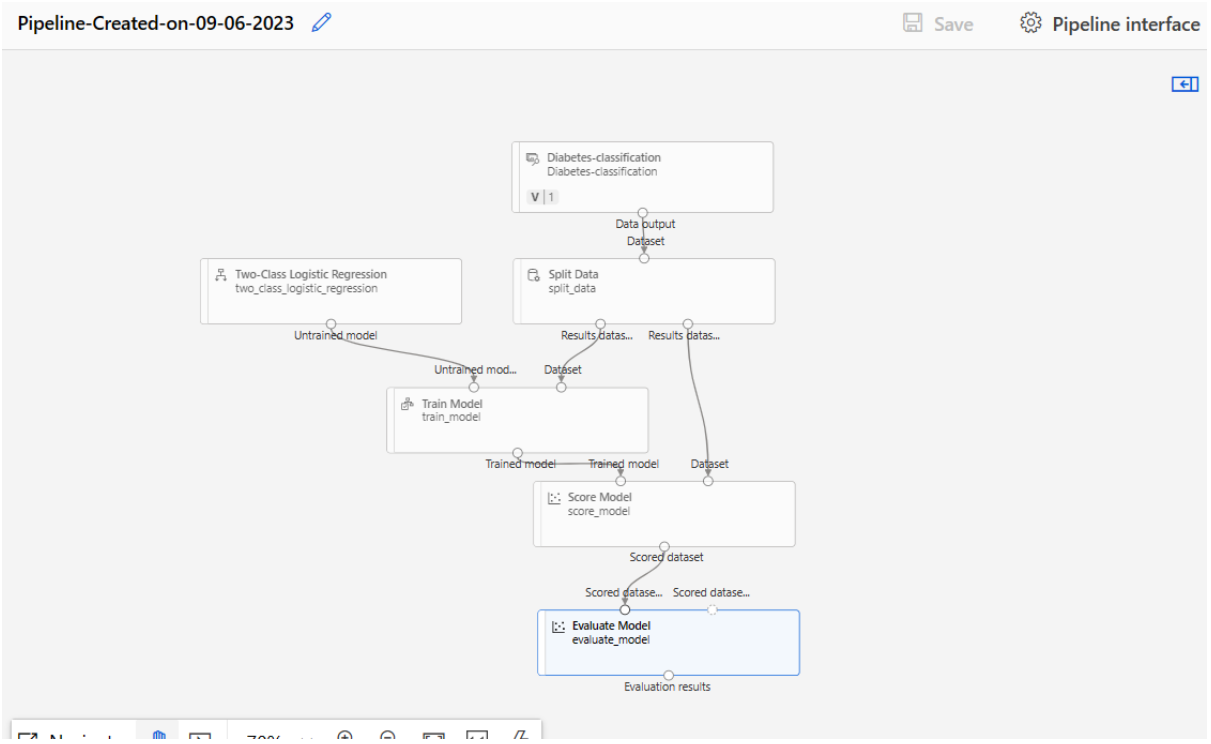
Select usable columns. Click **Next**.



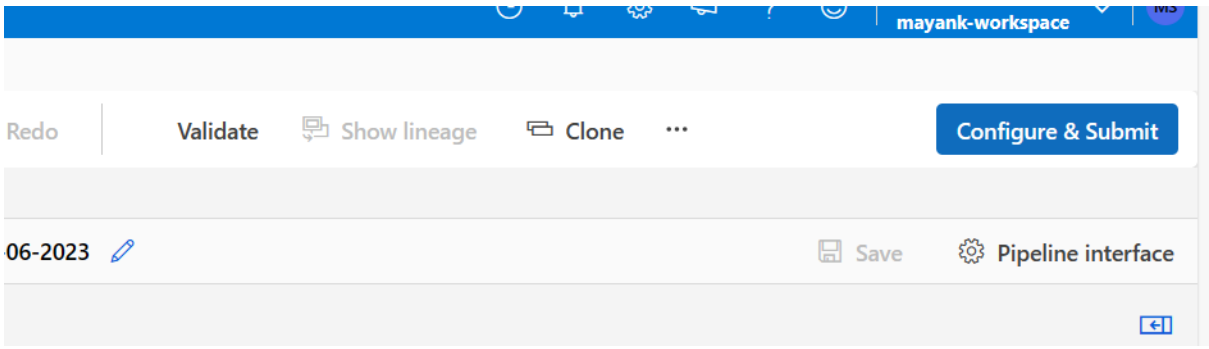
Review and click on **Create**.



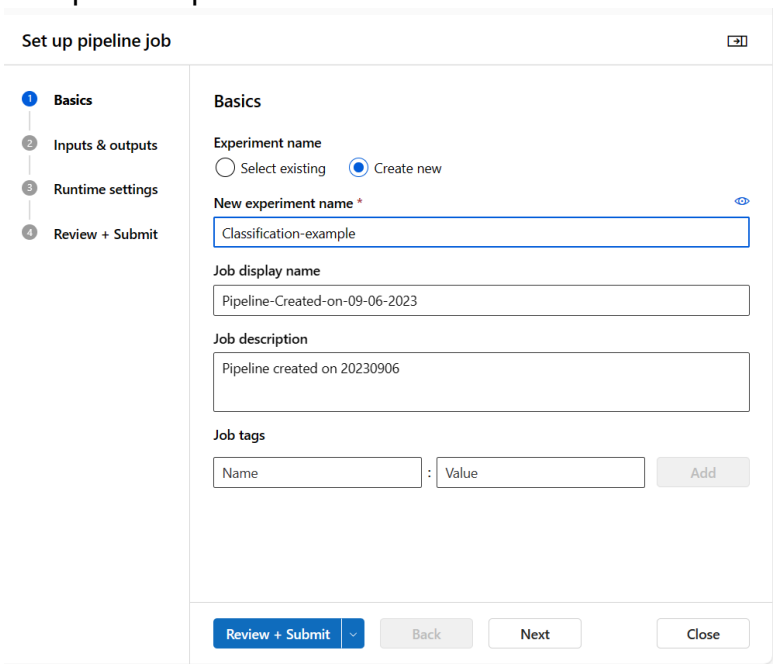
- **Step 7: Search components from search bar and develop a model as follows**:



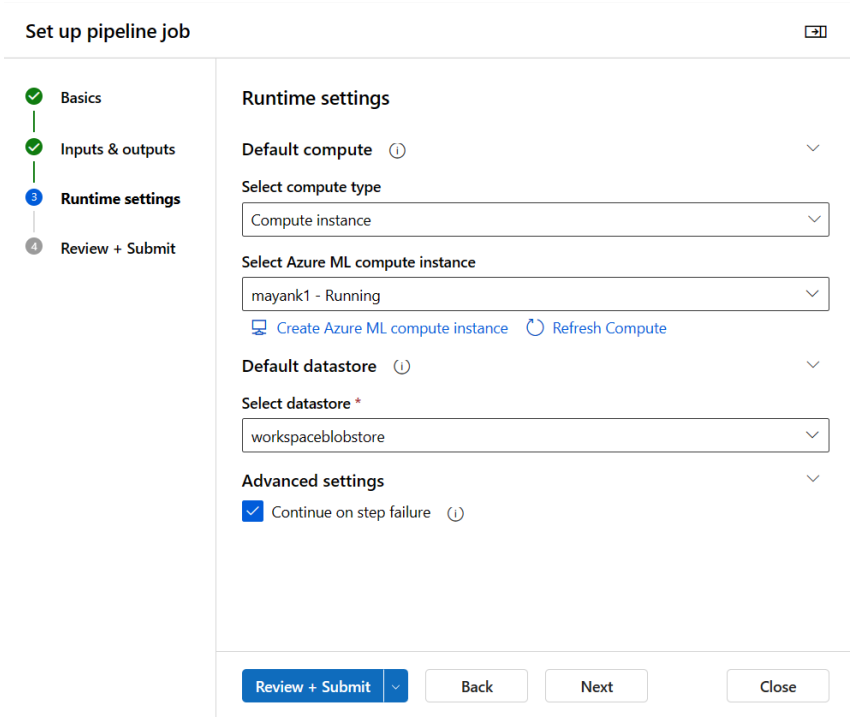
- **Step 8: Click on Configure & Submit.**



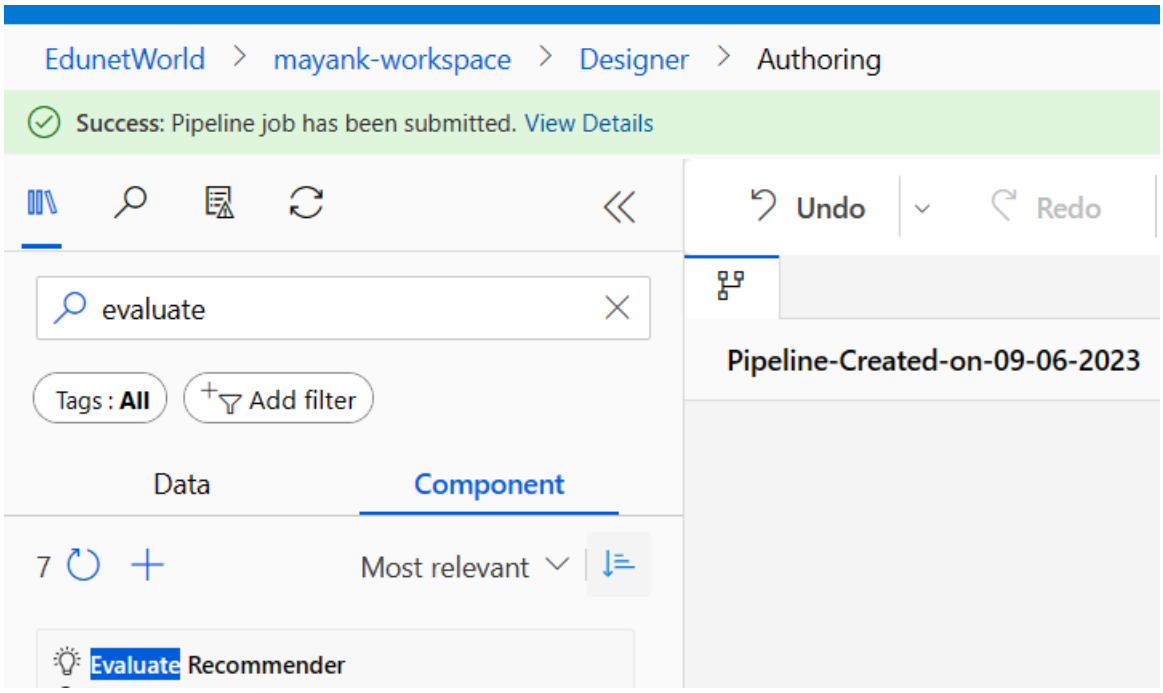
Fill up the required details.



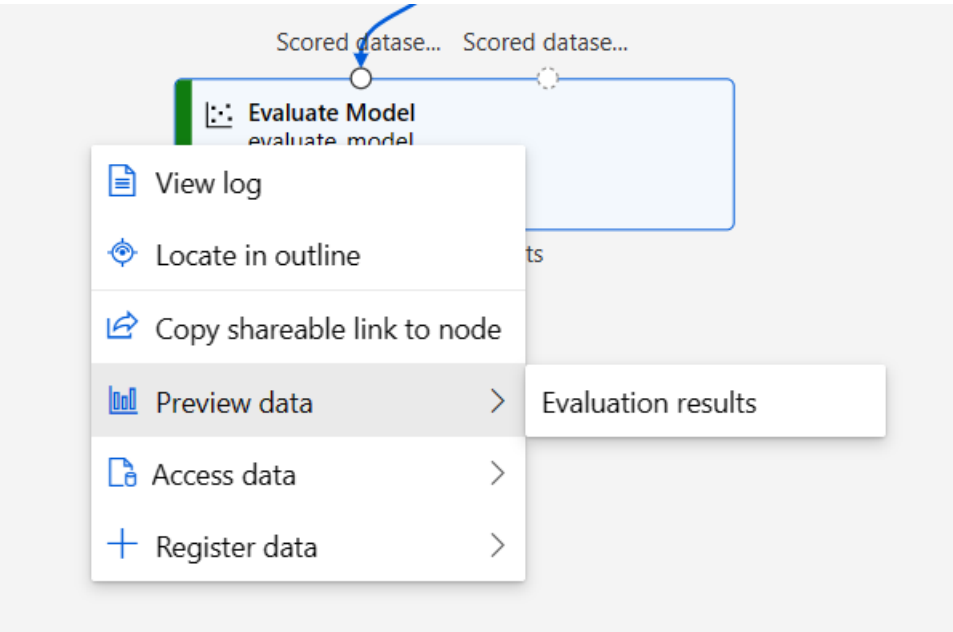
In the Runtime settings. Fill up the required details. Click on **Review + submit** and then **Submit**. If you don't have any Compute instance then create one. Steps are provided in the last.



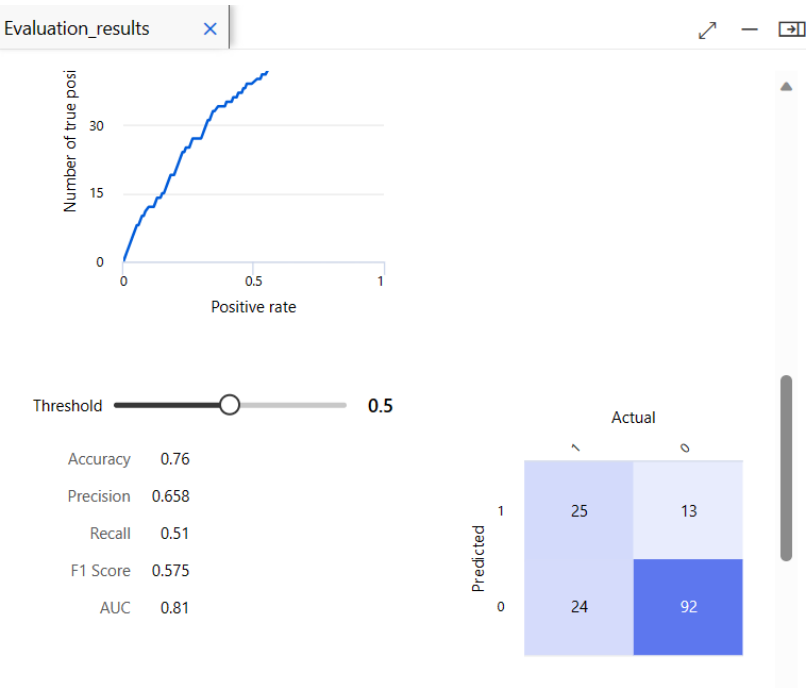
After successful submission. Pipeline job will be submitted. Click on **View Details.**



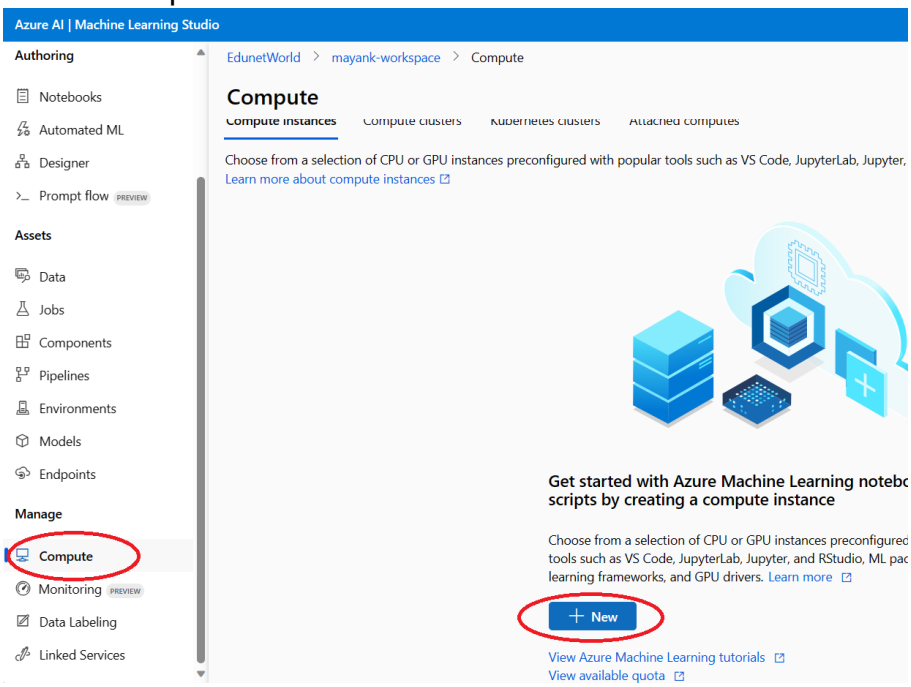
Once the run is successful, you can see the evaluation results by right-click on **Evaluate Model -> Preview Data -> Evaluation Results**.



Evaluation Results will be shown.



To create a compute instance.
Select Compute.



Select appropriate details. For our implementation, we will use a Memory optimized CPU : **Standard_E4ds_v4 4 cores, 32GB RAM, 150GB storage**

Click on **Create.**
Now, provision will take a couple of minutes.