AI Clauset!!

Agam Singh Talwar & Maria Dmytrenko

Why do we need it?

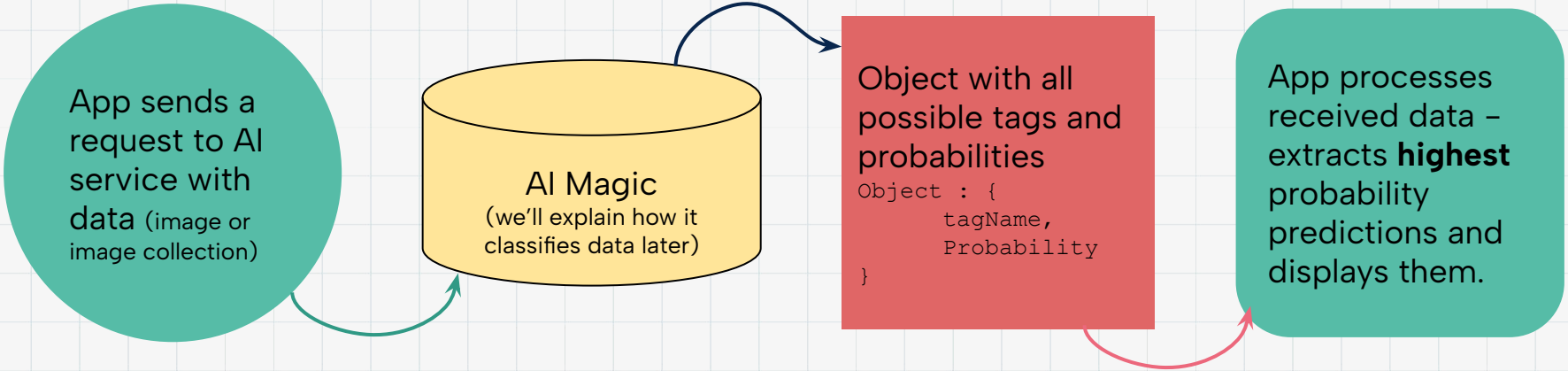
- Considering the current weather conditions, where the temperature varies for more than 10 C everyday.
- We all are tired of checking the weather and deciding what to wear every morning, then going through the decision fatigue early in the morning to decide what to wear as per the weather.

AI + Clothes =

What it does??

- Allow a user to create a virtual closet by uploading images.
- Lets a user set their current location.
- As per the location and the wardrobe, it suggests outfits depending on the weather for that location that day.

App to AI Connection Diagram



How does it work?

Though simple API Requests! 👇

```
const image = request.body;
let upper_lower_prediction = await fetch("https://clothrecog-prediction.cognitiveservices.azure.com/customvision/v3
d/classify/iterations/predict%20upper%20or%20lower/image", {
  'method': 'POST',
  'Prediction-Key': '5f0f9fcd5fe44a9993a61e553aef68de',
  'Content-Type': 'application/octet-stream',
  'body': image
});
```

Example of request for Upper/Lower Tag prediction

```
let color_prediction = await fetch("https://clothrecog-prediction.cognitiveservices.azure.com/customvision/v3.0/Prediction/
335d/classify/iterations/predict%20color/image", {
  'method': 'POST',
  'Prediction-Key': '5f0f9fcd5fe44a9993a61e553aef68de',
  'Content-Type': 'application/octet-stream',
  'body': image
});
```

Example of request for Color Tag prediction

Demonstration

Azure AI services:

01

Custom Vision

02

Automated ML

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01

Custom Vision?

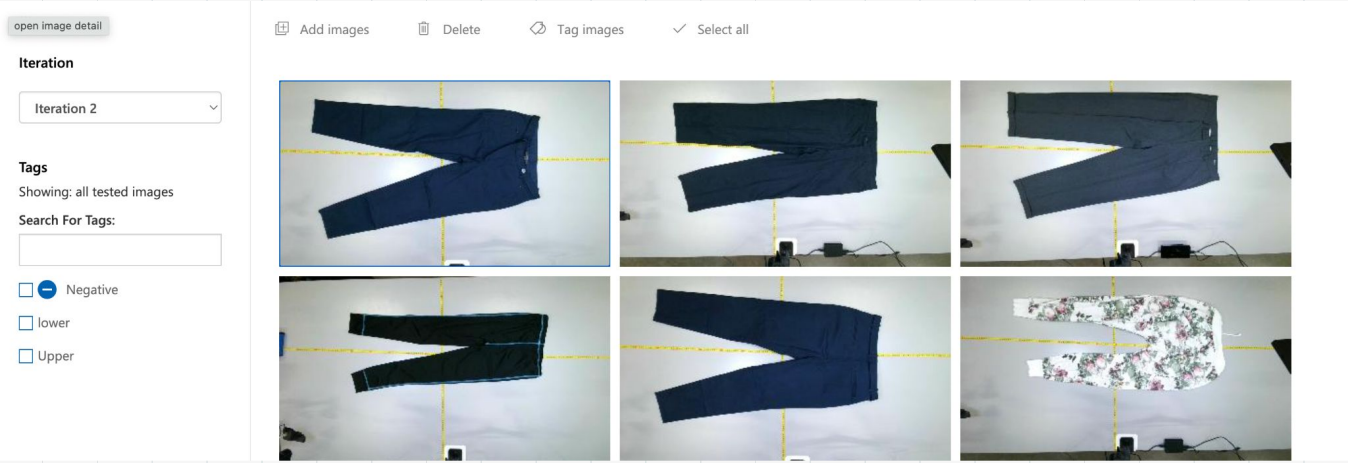
What is Custom Vision?

Build and train your own image classifiers to recognize specific objects, scenes, or concepts in images.

Different from the general-purpose Computer Vision service, which provides pre-trained models for common computer vision tasks.

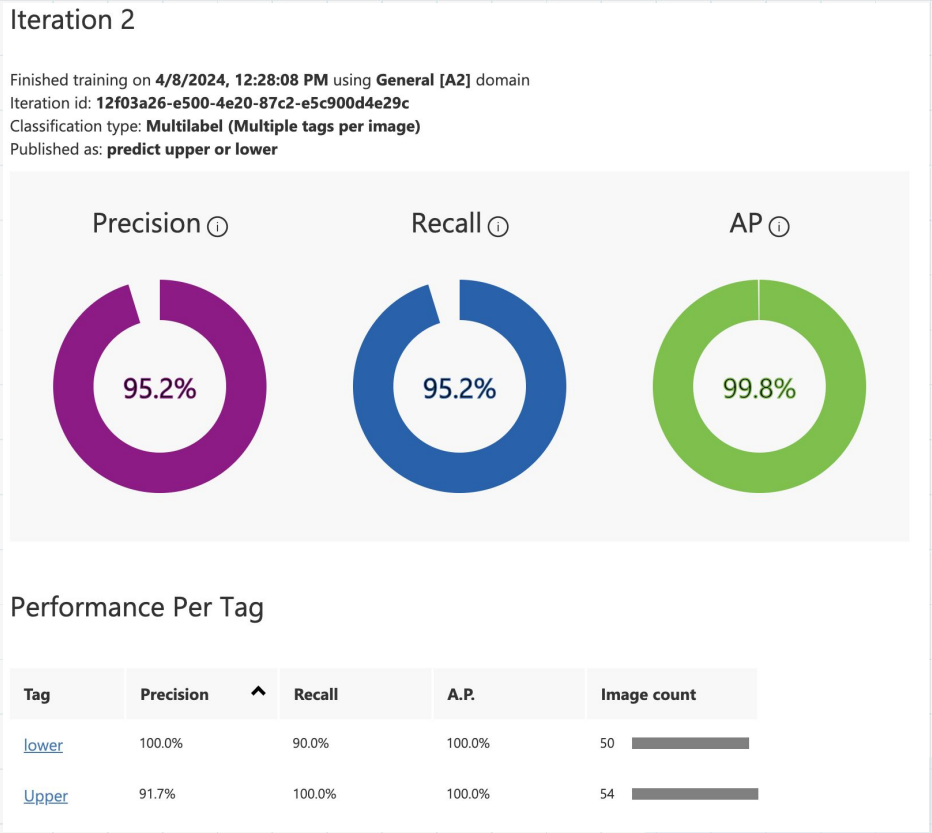
We used to identify various types of clothing items.

1) Start by labelling images

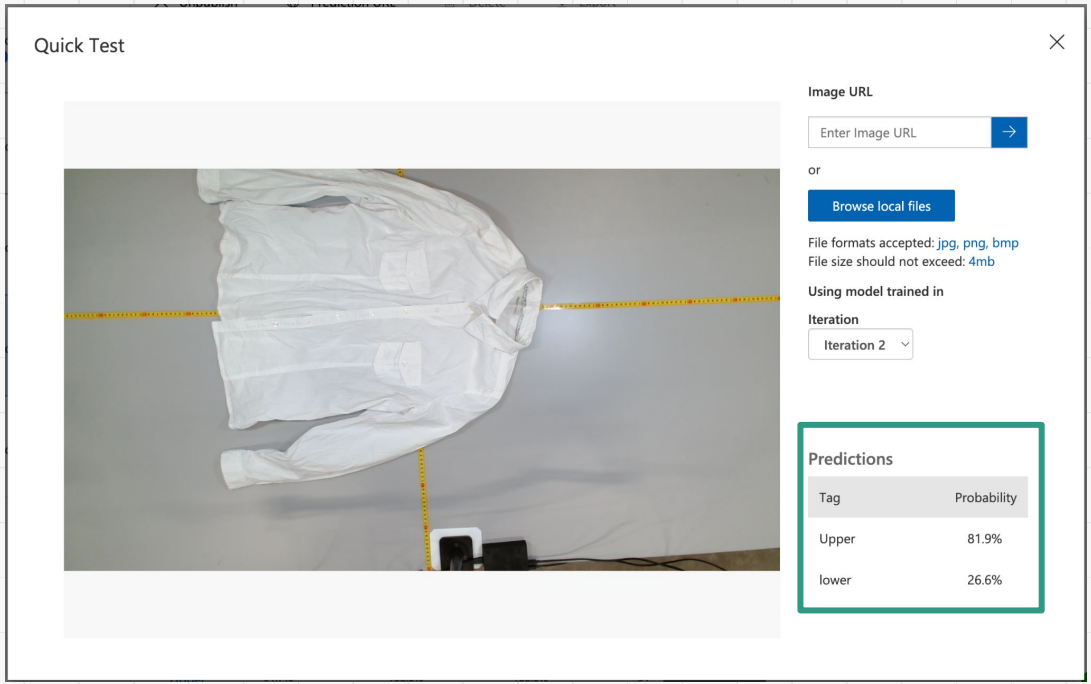


2) Choose the training type

3) Wait for it to finish!



4) Quick test!


Quick Test
Image URL
Enter Image URL
or
Browse local files
File formats accepted: jpg, png, bmp
File size should not exceed: 4mb
Using model trained in
Iteration
Iteration 2
Predictions
Tag
Probability
Upper
81.9%
lower
26.6%

02

Automated ML

What is automated ML?

Service that automates the complex and repetitive tasks involved in building and deploying machine learning models:

AutoML can be used to train regression models that predict numerical output values based on input features.

AutoML can also be used to train classification models that predict categorical output values based on input features.

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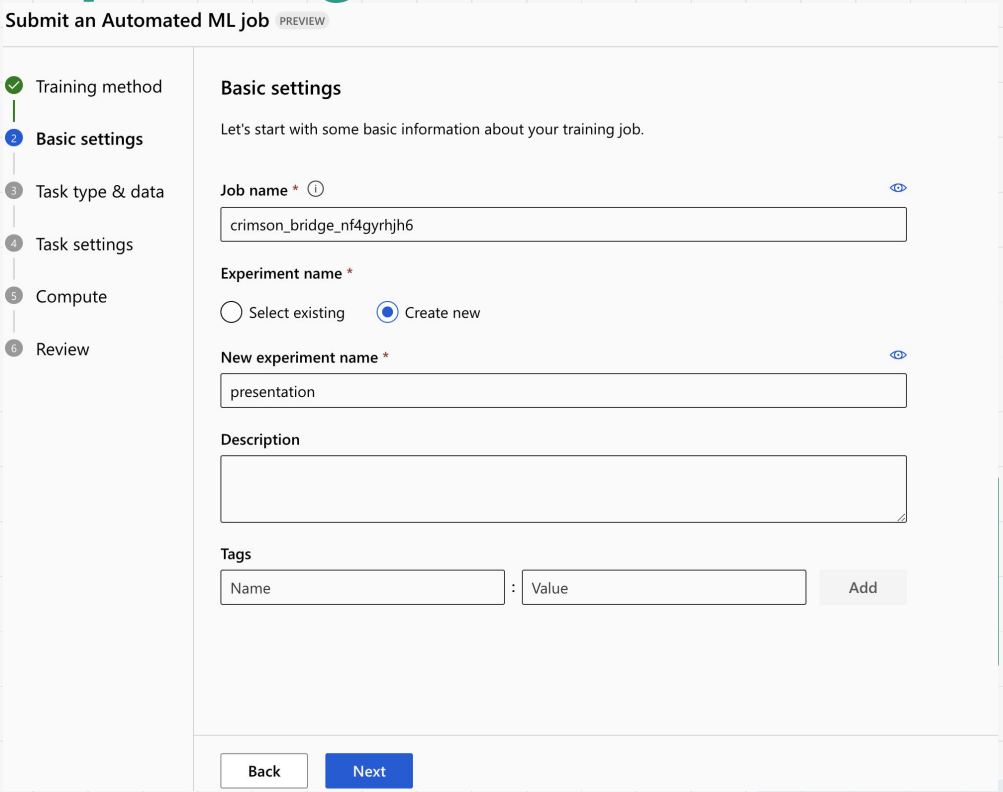
How did we use it?

- Train classification models to suggest clothing items as per the given weather conditions.

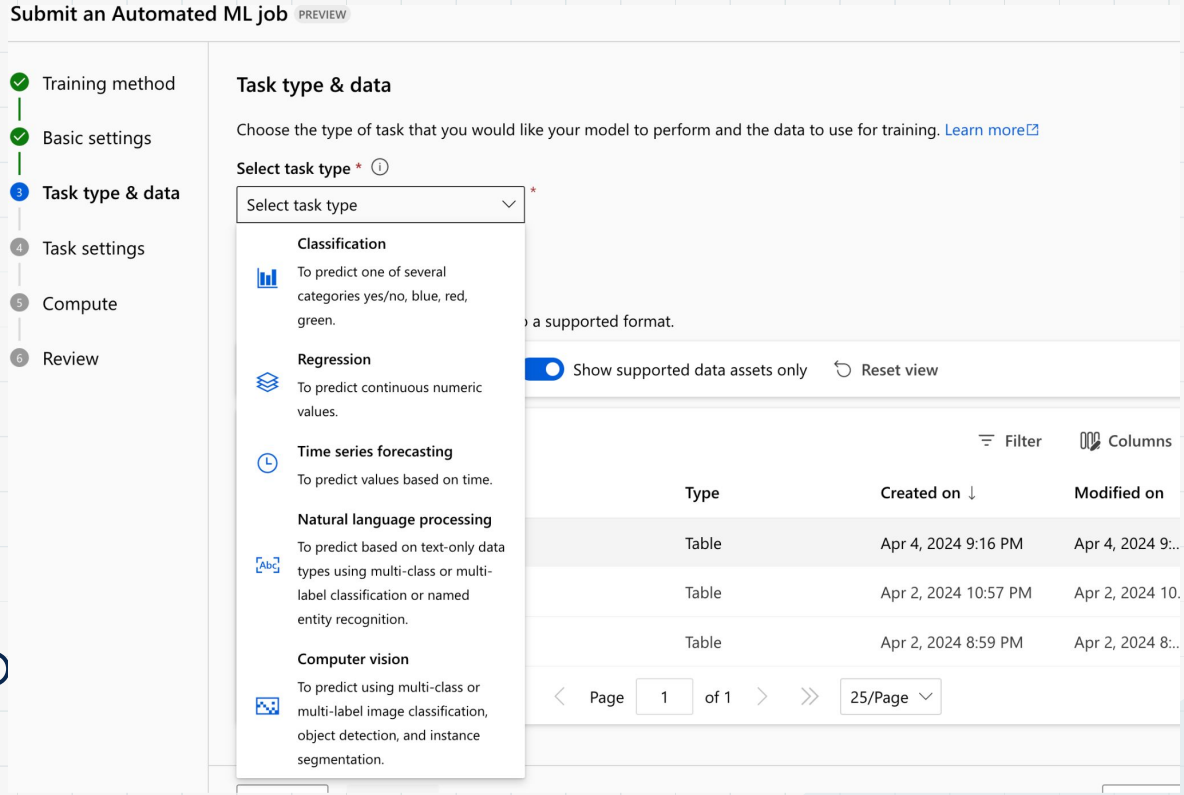
Problems we faced?

- It returns the clothing items based on what it has been trained on.
- We want it to return clothing item from a user’s virtual wardrobe.

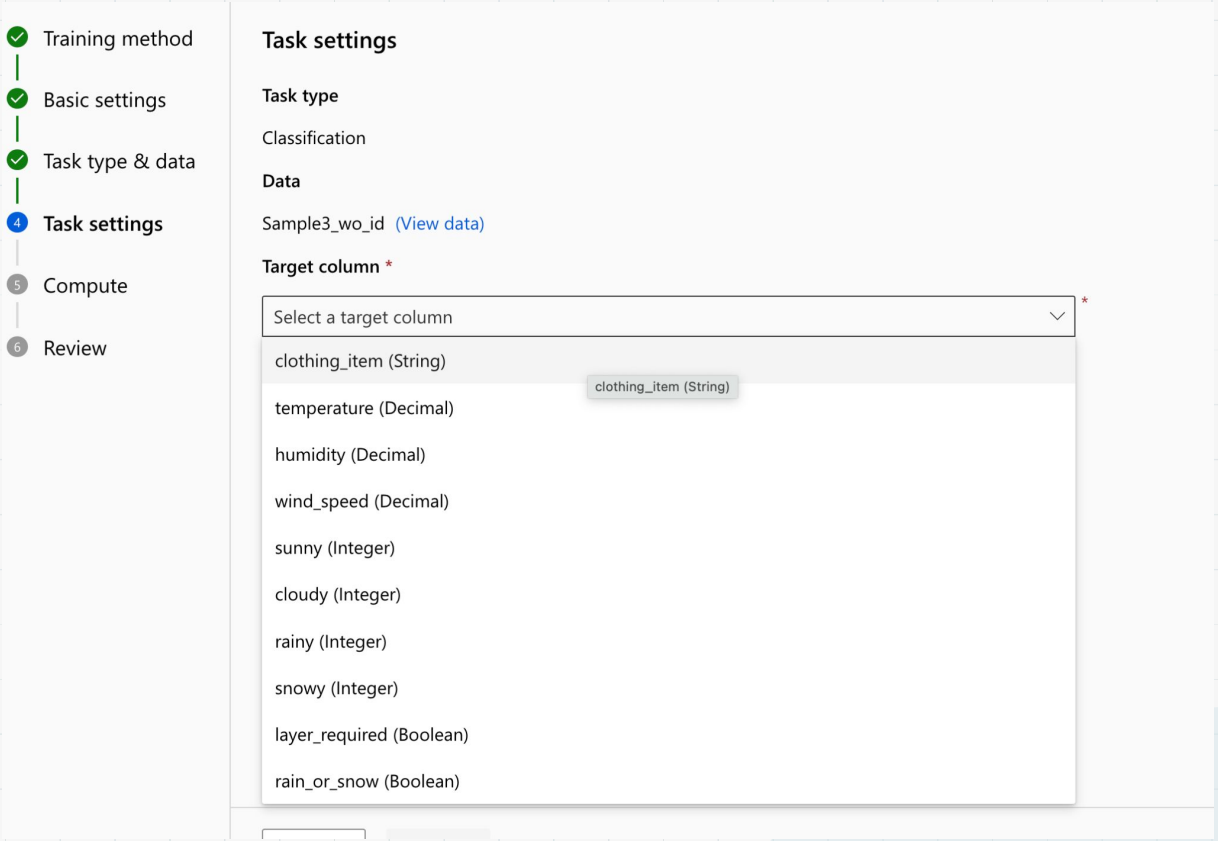
1) Start by filling the basic info.



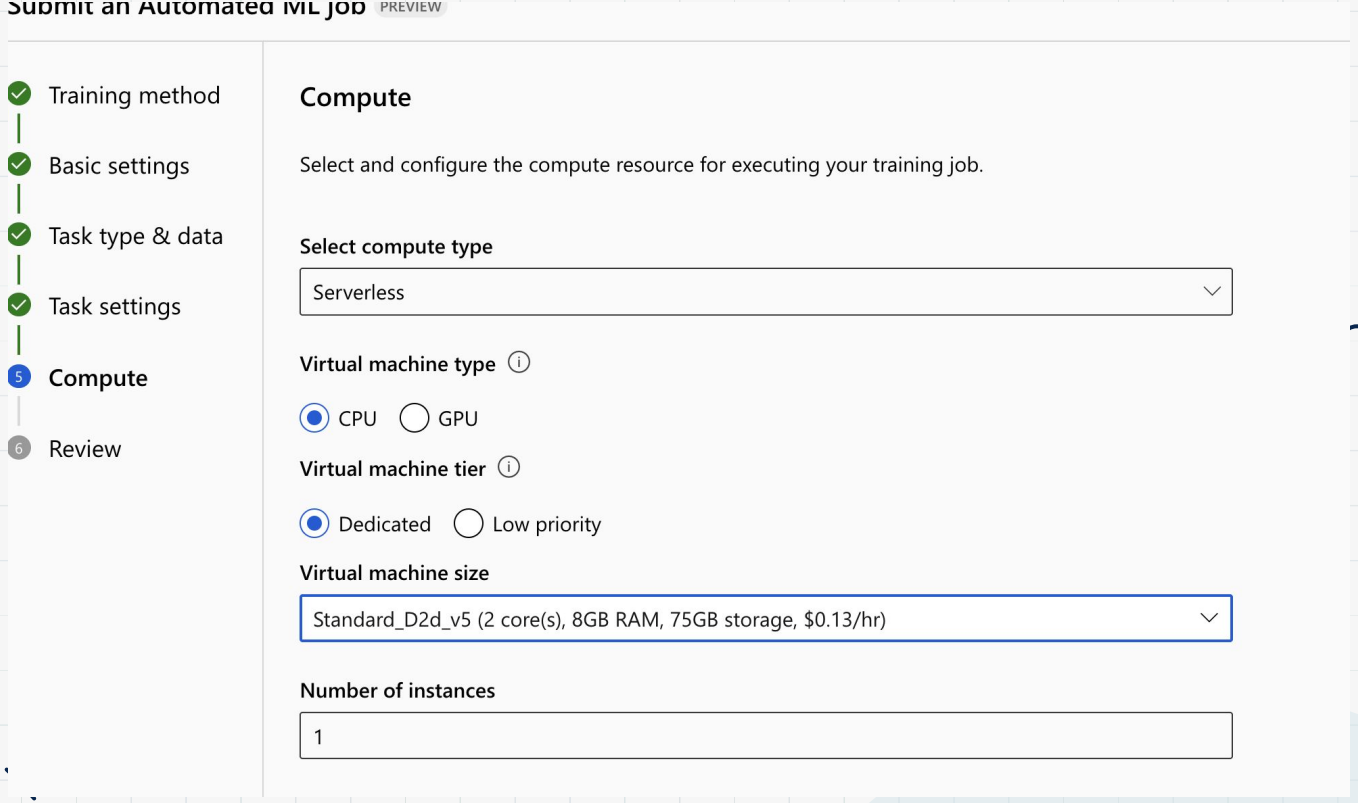
2) Choose the dataset & the task



3) Choose the target column that should be returned



4) Choose the machine



Algorithms used!!!

MaxAbsScaler processes the data to get it to a comparable state.

LightGBM classifies the data by creating labels, then uses those labels to classify more data and keeps on updating them.

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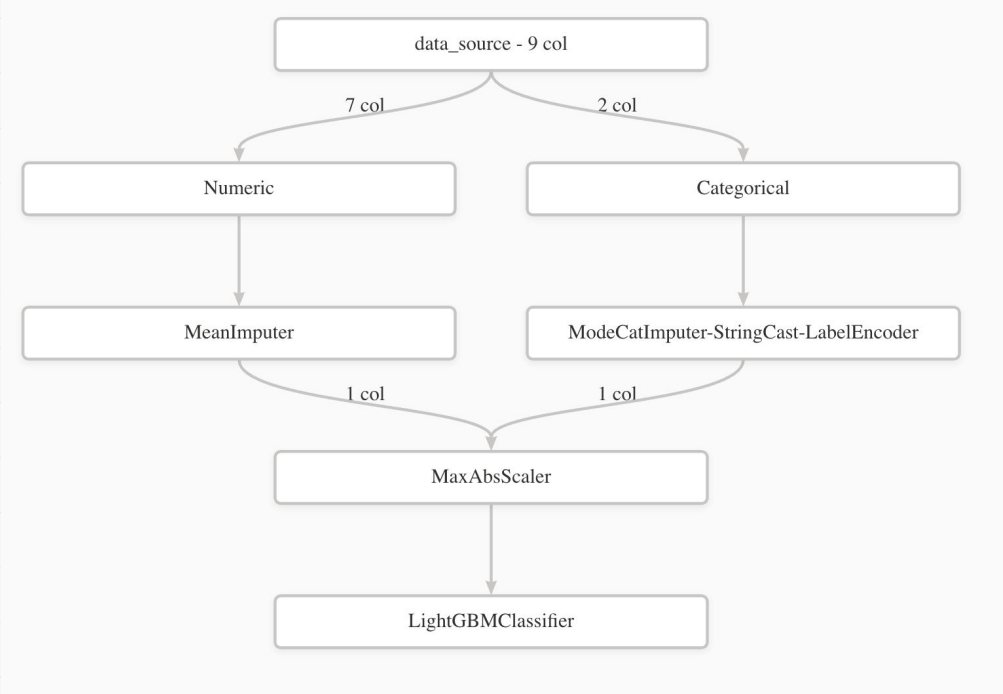
Data Processing!



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Thank you!