Problem Statement

You are given a weather dataset.Build and test a classification model on that dataset and import it in ML studio and create a web service and integrate this model with the stream analytics job with the help of the web service.

Sample Data-Temperature.csv

|  |  |  |
| --- | --- | --- |
| Relative\_Humidity | Temperature | Weather\_type |
| 27 | 30 | Smoke |
| 32 | 28 | Smoke |
| 44 | 24 | Smoke |
| 41 | 24 | Smoke |
| 47 | 23 | Smoke |

**The above Sampled data from the dataset contains 3 columns such as:**

Relative\_Humidity : The humidity recorded by the sensor.

Temperature: The temperature recorded by the sensor.

Weather\_type: The type of weather

Steps:

1. Create a classification model and find its accuracy over the test data
2. After that serialize the model on disk in the special 'outputs' folder and close the folder.
3. Create an experiment Weather Prediction in ML Studio.
4. Upload the Test Dataset in the Studio .
5. Build the Model.
6. Run the Model.
7. Deploy the Web Service(Note the Access URL and the key).
8. Test the web service deployed with the help of a sample record in the Web Service Dashboard.

Create stream analytics service resource using the below details

**Storage Account**-HomeSensor

**Input Container**- WeatherIn

**Output Container**-WeatherOut

**Stream Analytics Job**-WeatherAnalysis

**Function**-predictWeather

1. You have to create a storage account Weather and two containers inside it such as WeatherIn and WeatherOut.
2. Upload the Weather dataset into WeatherIn.
3. Create a stream Analytics Job WeatherAnalysis and configure the inputs and the output.The input should be the WeatherIn and the output should be the WeatherOut.
4. Configure the function predictWeather with the help of previously created Web URl and the key with the help of the deployed web service.
5. Write the Query to get the function output in the form of predicted weatherType in the output storage.