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## **MLFoundry - ML Monitoring & Experiment Tracking solution**

### **Overview**

The development of any ML model consists of multiple experiments to get promising results. Imagine taking months to develop the perfect solution but eventually forgetting to save all the necessary information for each run or experiment. Running all the experiments again is not always an apt solution. A handy solution to track all the information is provided via ML Monitoring and Experiment Tracking.

- MLFoundry is TrueFoundry's ML Monitoring & Experiment Tracking solution built on top of the amazing open-source solutions such as MLFlow, EvidentlyAI, Whylabs, Streamlit. It allows you to track your experiments, and monitor your model performance & data drift.
- It is a client-side library that allows users to log their experiments, models, metrics, data & features. This data is fed to TrueFoundry's monitoring systems to generate informative dashboards and insights.
- You get a complete dashboard to monitor your data, features, models and compare experiments.

### **Installation**

TrueFoundry's monitoring solution depends on two libraries (mlfoundry & mlfoundry-ui) which can be installed via pip. As mlfoundry depends on many different libraries, we recommend working within virtual environments, as and when the dependencies issues were to happen, they are easy to contain.

Follow the steps to create a virtual environment using Anaconda Prompt

#### **For windows**

##### **Step 1: path to the folder where the notebook is present**

```
cd <folder-of-your-project>
```

##### **Step 2: Creating and activating a virtual environment**

```
pip install virtualenv
```

```
virtualenv venv
```

```
venv\Scripts\activate #for windows
```

(source venv/bin/activate #for Mac on linux)

### **Step 3: installing all required libraries**

pip install -r requirements.txt

### **Step 4: Installing mlfoundry library**

pip install mlfoundry

### **Step 5: To open the jupyter notebook**

jupyter notebook

### **Step 6: To get out of the virtual environment**

Deactivate

### **Get API Access**

You need API access to run the MLFoundry library. You will be asked to enter the API key after executing the code `mlf.login()`

To get the API Key please signup on to - <https://app.truefoundry.com> and create an API token from settings (<https://app.truefoundry.com/settings>)

You can now paste this API key in the Jupyter notebook when asked. This is a one-time process only.

### **Results Dashboard**

After you have trained your model, mlfoundry will make the dashboard of the results of the model on the website and you can see your dashboard (<https://app.truefoundry.com/mlfoundry>).