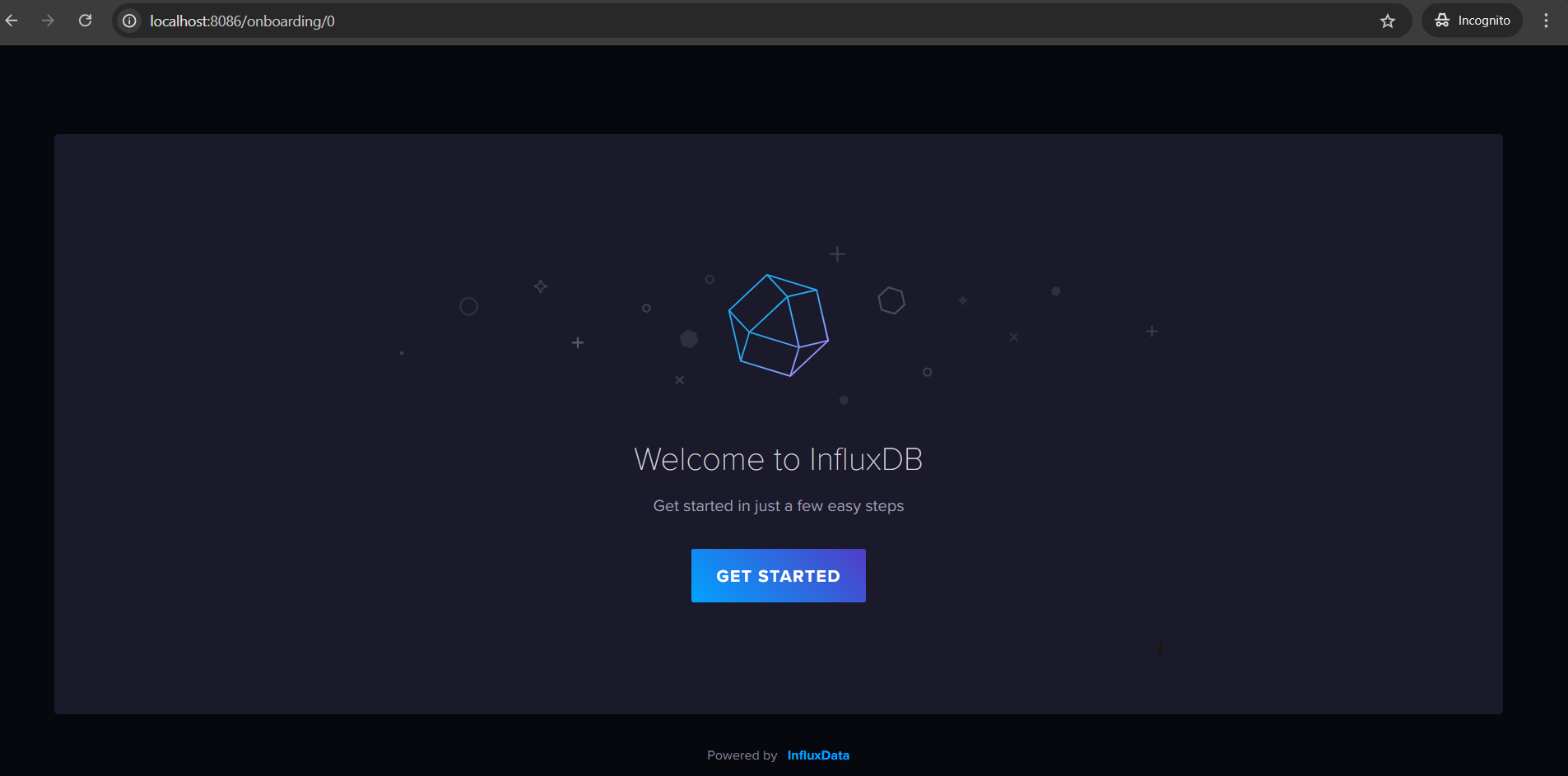
JMeter Integration with InfluxDB(v2) and Grafana for real time performance monitoring

JMeter write the realtime test results into Influx database using backend listener and Grafana will read the data from influxdb and display it on it's dashboard.

**Setup InfluxDB**

1. Download and install InfluxDB <https://docs.influxdata.com/influxdb/v2/install/?t=Windows>
2. Extract the downloaded file
3. Open Powershell and enter command “influxd.exe”
4. Influx.exe is a server that we have to open it while working, do not close it must recommend.
5. Open url <http://localhost:8086/> and click on get started, influx running on port 8086 by default



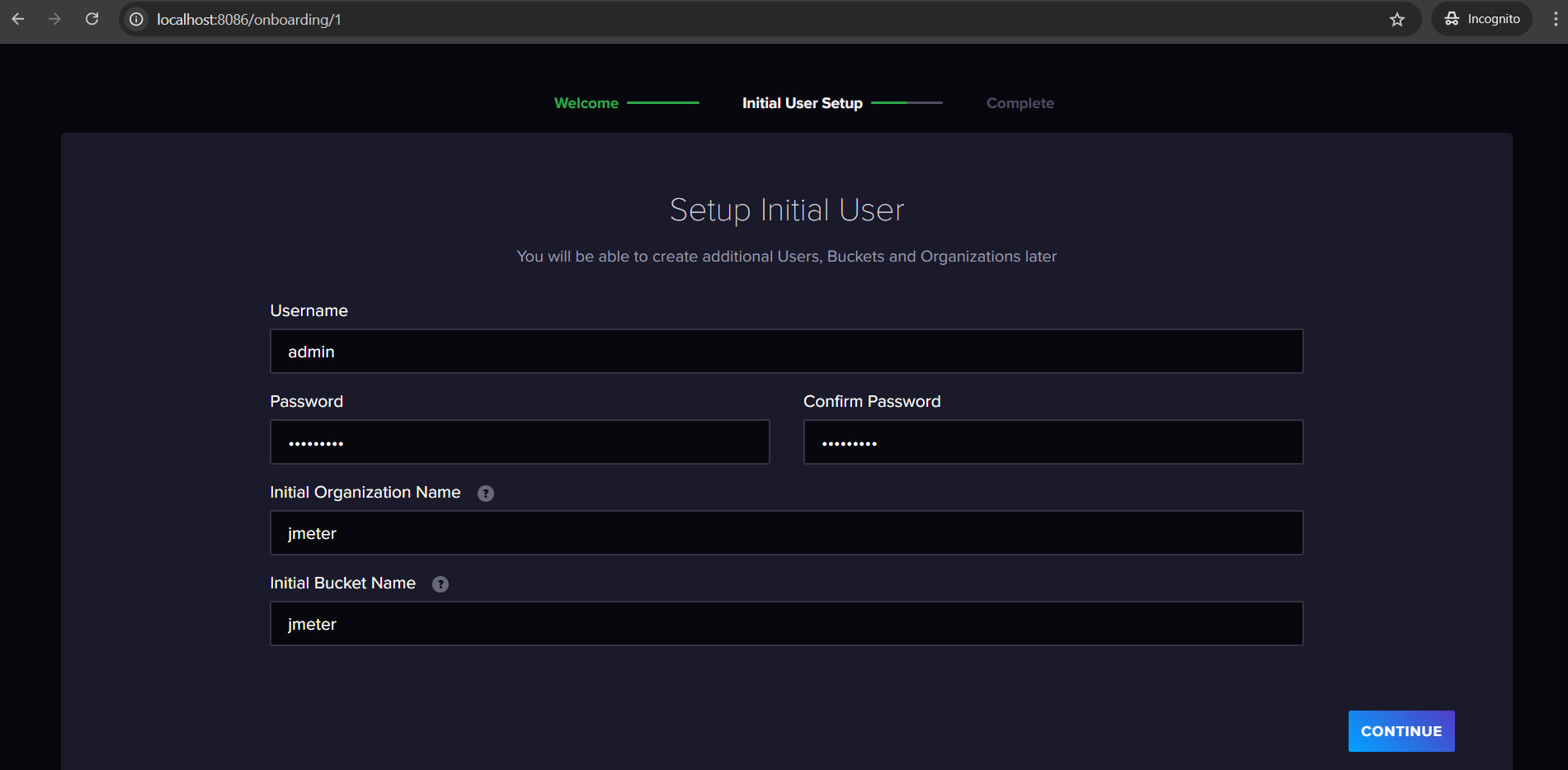
1. Enter all required details and make sure should be correct and remembered it.

**Username**: provide any suitable username to login to influxdb

**Password**: provide any suitable password to login

**Initial Organization Name:** this field will serve as a workspace name for different users to work on the same.

**Initial Bucket Name**: Bucket is same as database in general, provide a suitable db name in this field

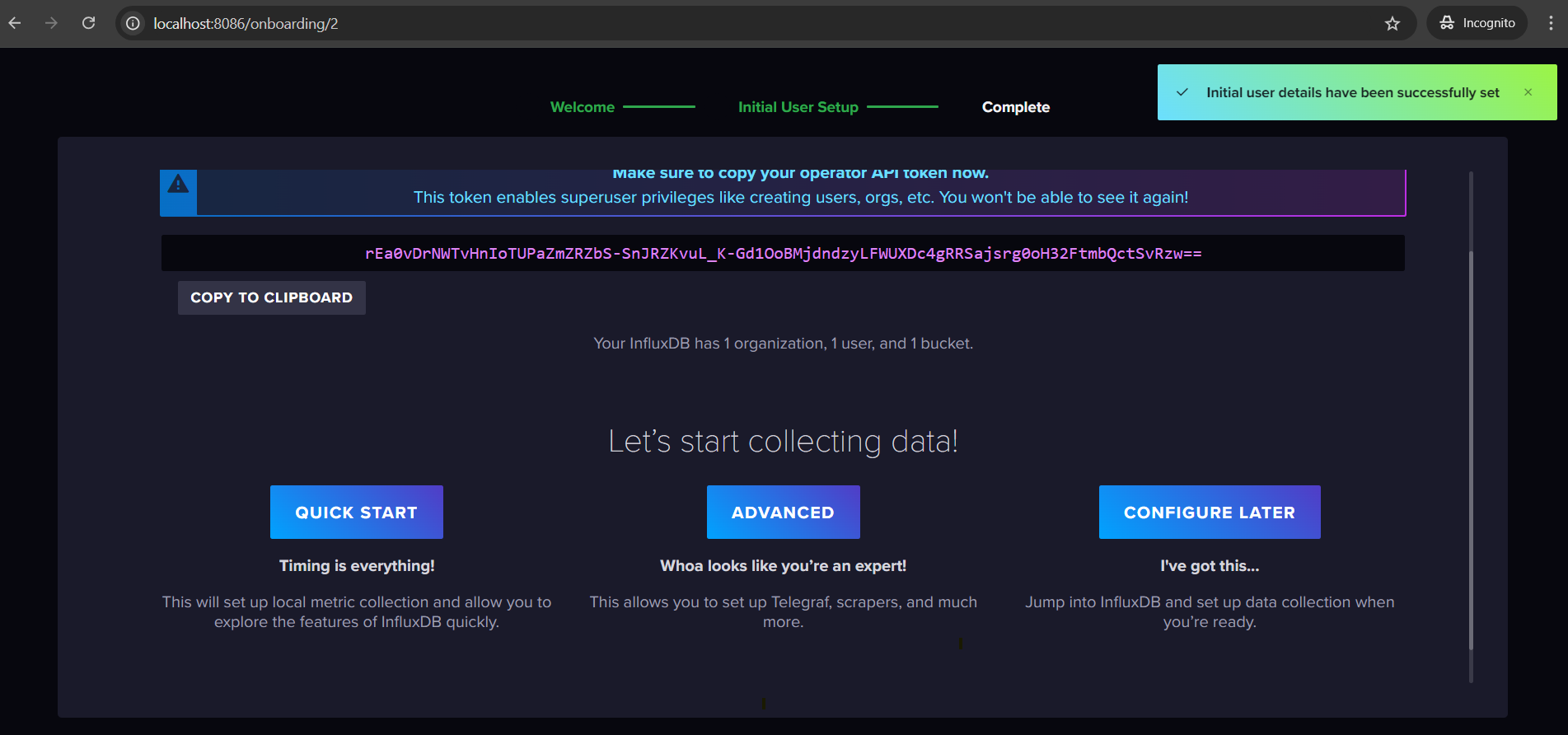


Organization name kept is jmeter

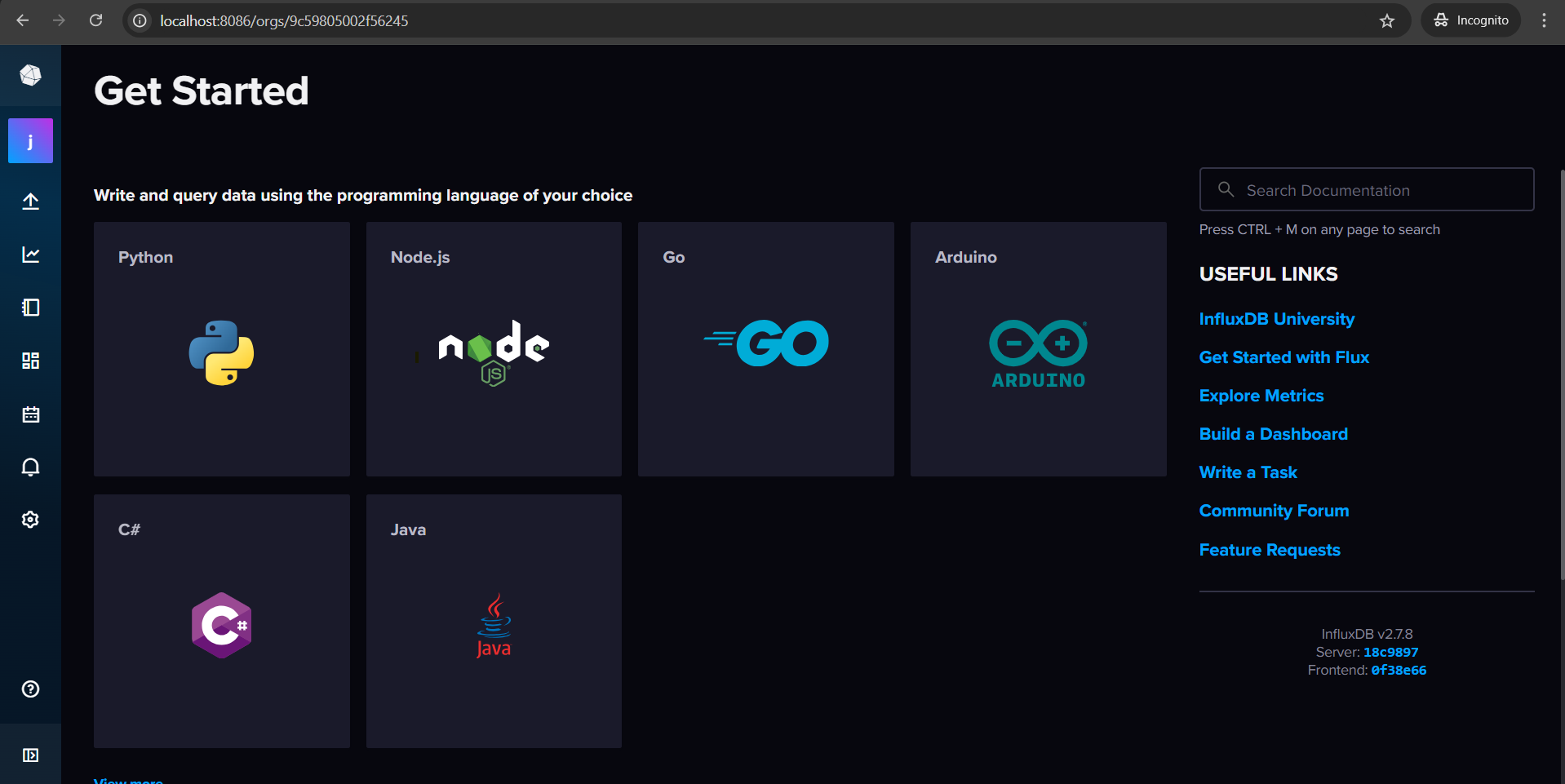
Bucket name kept is “jmeter”, bucket means database name where all data will be store

Note: You can keep any name as per your choice but keep remember

1. Click on submit button
2. After submit you get API token and make sure copy the API Token now, you would not able to see it again! API token is highlighted



1. Click on Quick Start
2. Now, Influx DB Setup is ready , we have to configure with jmeter

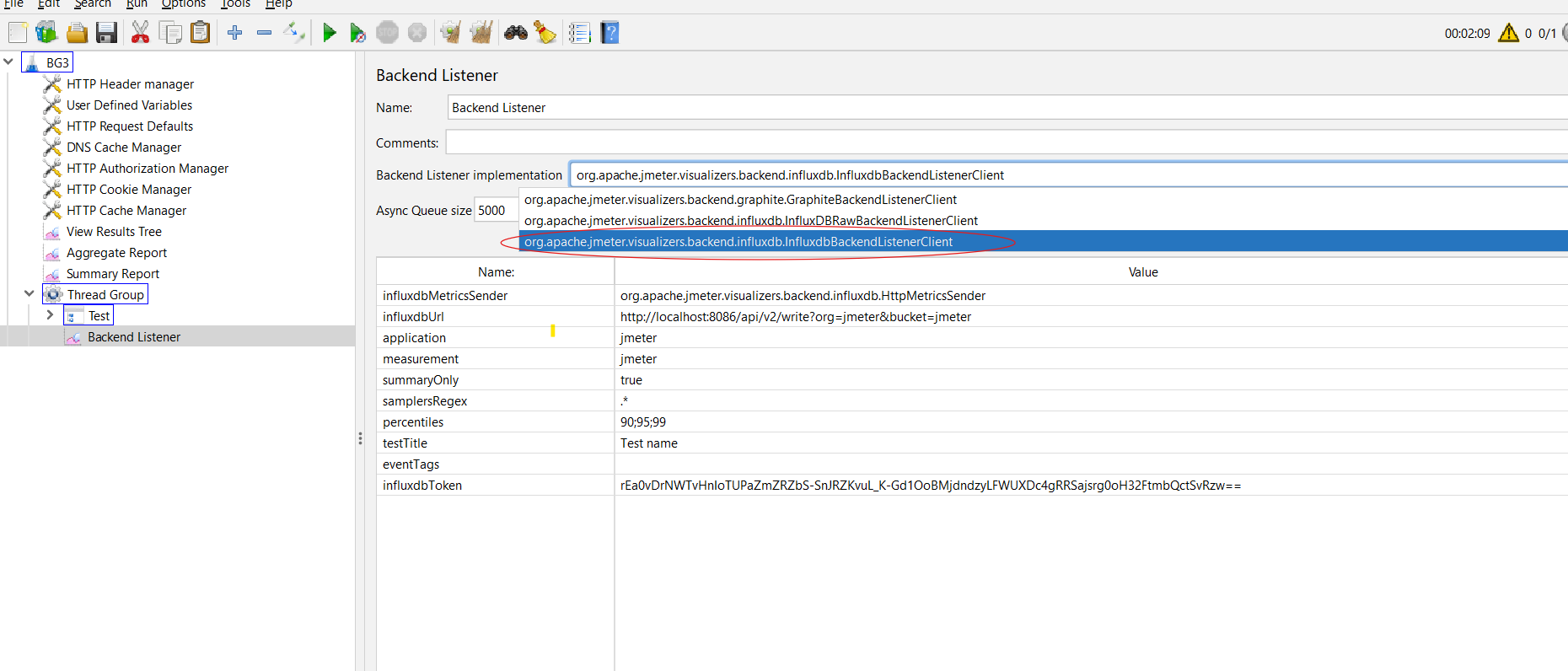


**Setup (Backend Listener) in JMeter**

1. Now we have to work on JMeter, our JMX script should be ready without any failure error
2. In JMeter, we have to use backend Listener under Listener

Add a new backend listener to the thread group. Right Click on a Thread Group -> Add -> Listener -> Backend Listener

1. In the Backend Listener Implementation dropdown *select***org.apache.jmeter.visualizers.backend.influxdb.InfluxdbBackendListenerClient**

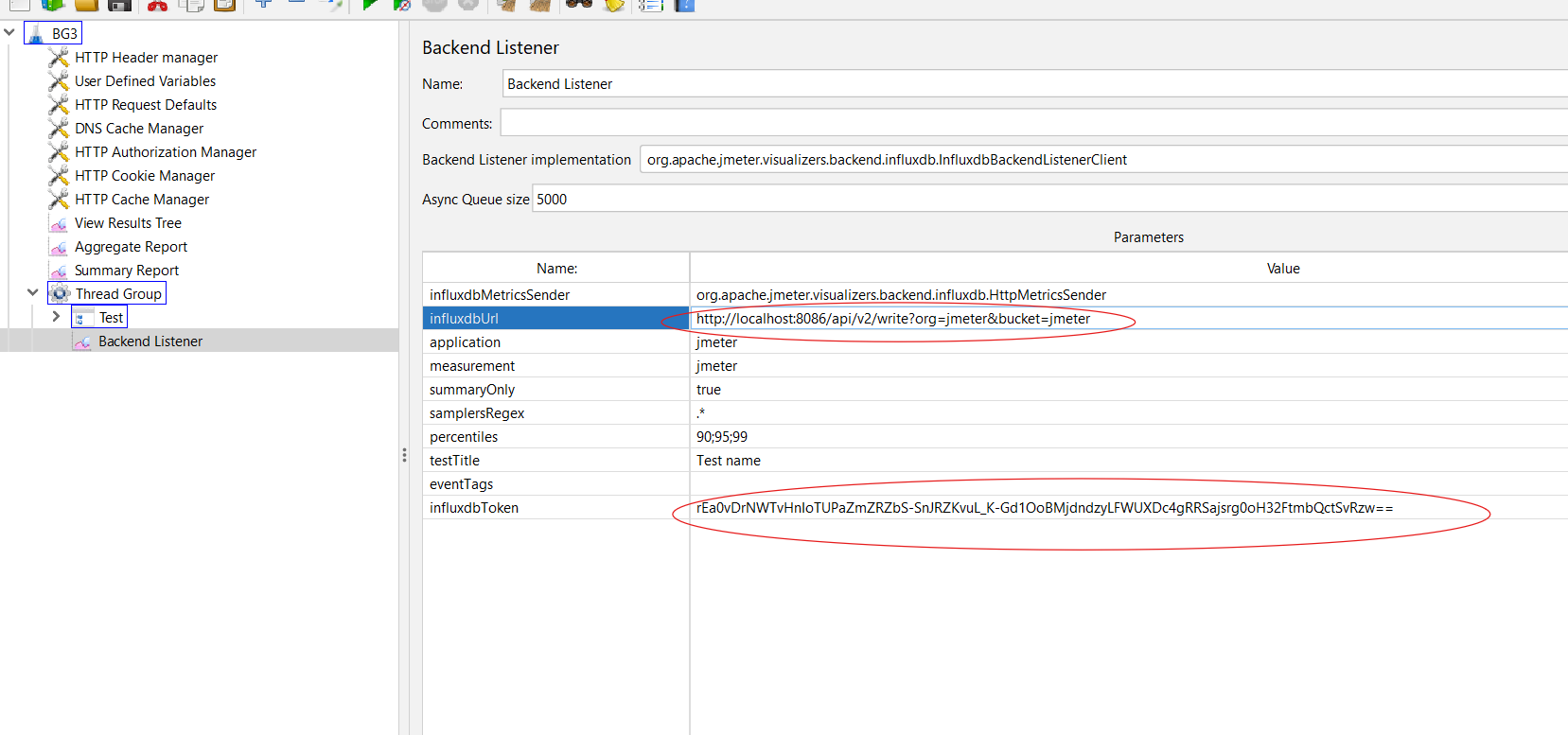


1. Enter influxdbUrl and influxdbToken, make sure it’s should be correct, we got influx db details and token at the time of creating setup earlier. Now we have to put it same as in backend listener in JMeter
2. org name is “jmeter” & bucket name also is “jmeter”

influxdbUrl = <http://localhost:8086/api/v2/write?org=jmeter&bucket=jmeter>

influxdbToken = rEa0vDrNWTvHnIoTUPaZmZRZbS-SnJRZKvuL\_K-Gd1OoBMjdndzyLFWUXDc4gRRSajsrg0oH32FtmbQctSvRzw==

we have to make sure that orgination name, bucket name and token should be correct



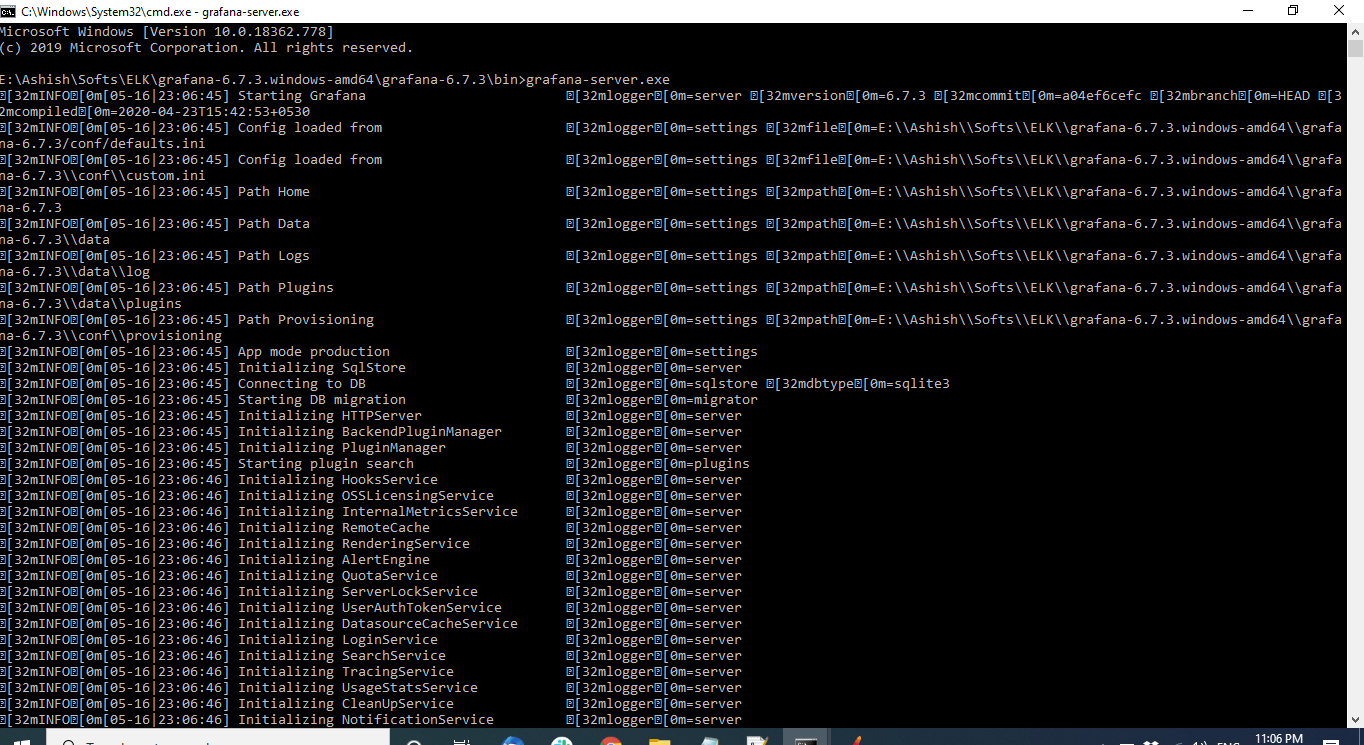
1. Jmeter work is done now, at the time of execution of script, jmeter push all data to influxdb and then influx db capture all data in database and then we have to integrate influx db to Grafana, Grafana use to visualize the data in the form of charts and graphs.

JMeter write the real-time test results into Influx database using backend listener and Grafana will read the data from InfluxDB and display it on its dashboard.

**Download and Setup Grafana**

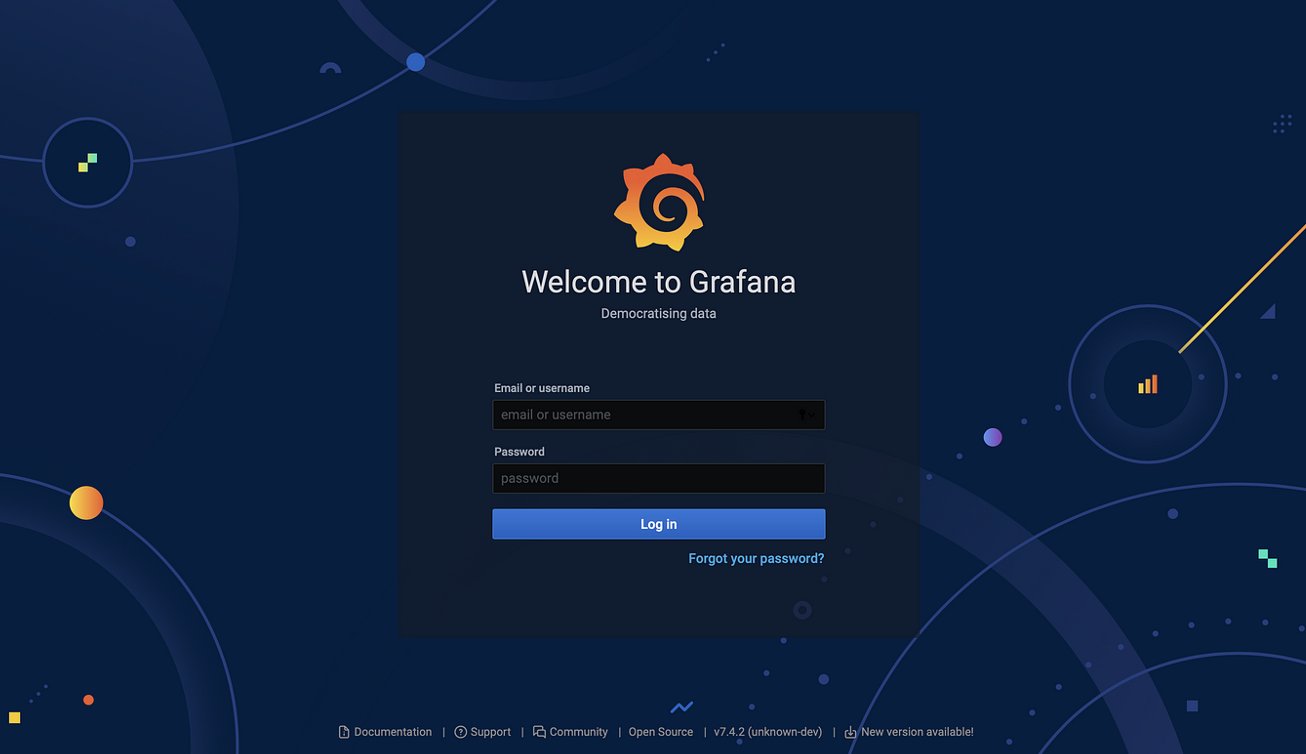
1. Download and install Grafana <https://grafana.com/grafana/download?edition=oss&platform=windows>
2. Extract downloaded Grafana Zip file
3. **Start Grafana**

To start Grafana navigate to /bin directory and run **grafana-server.exe.**It should look something like this:

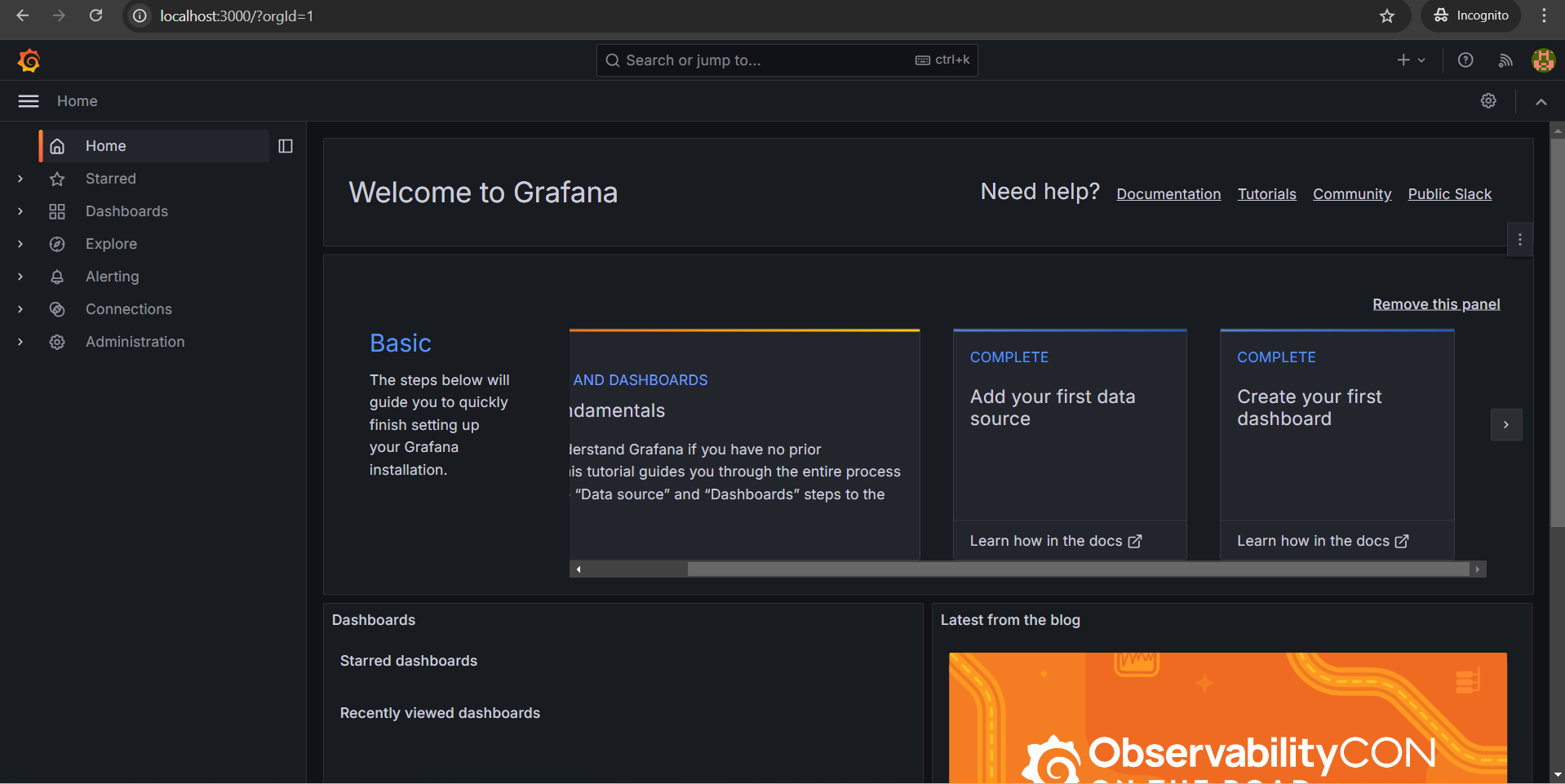


1. After that, Grafana should be available on [http://localhost:3000](http://localhost:3000/)

Use ‘admin’ both as a default username and password to log in.



1. Once logged in you will be presented with the Home Dashboard. From here you can create data sources, manage users, create report dashboards etc.

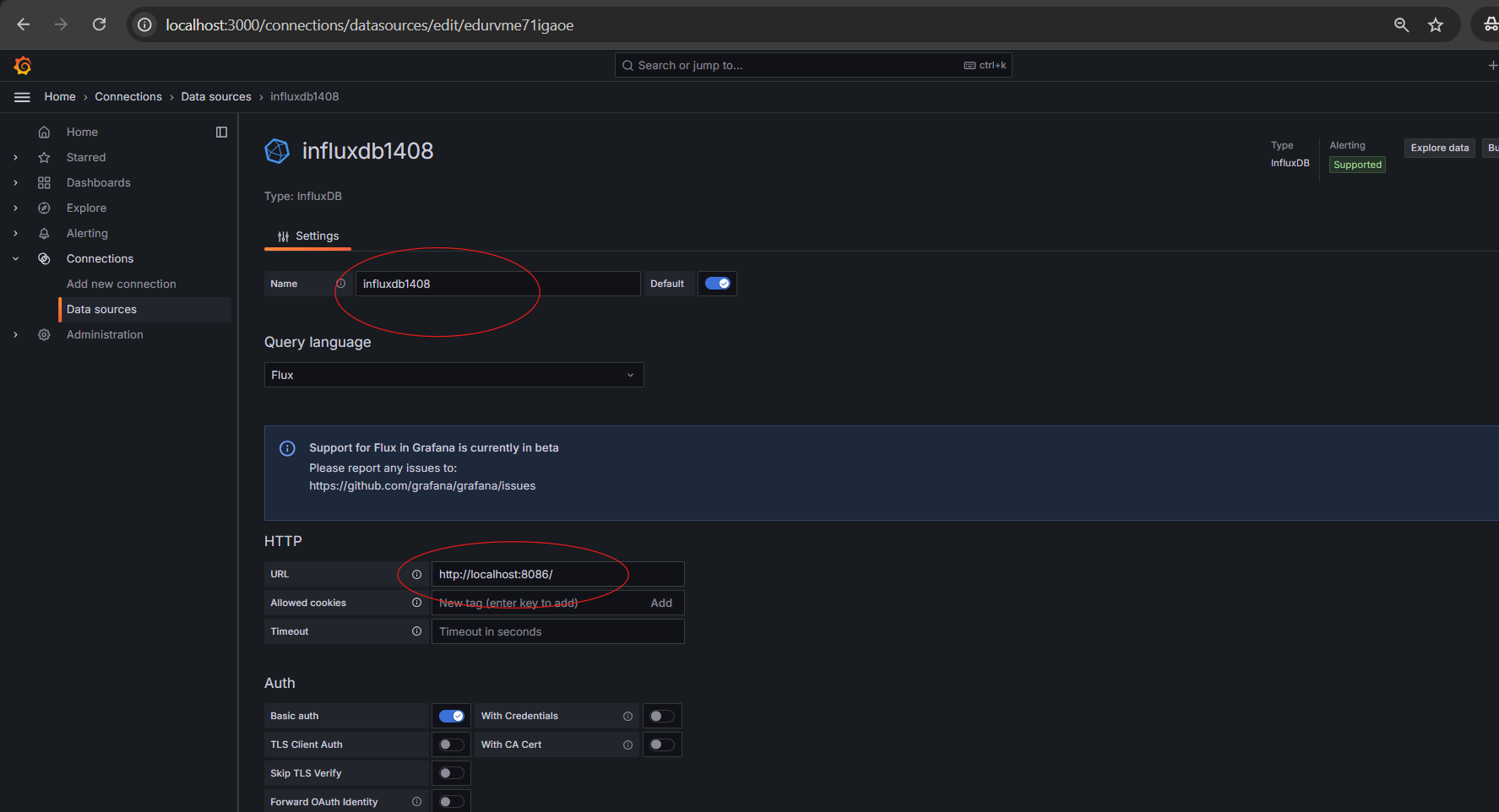


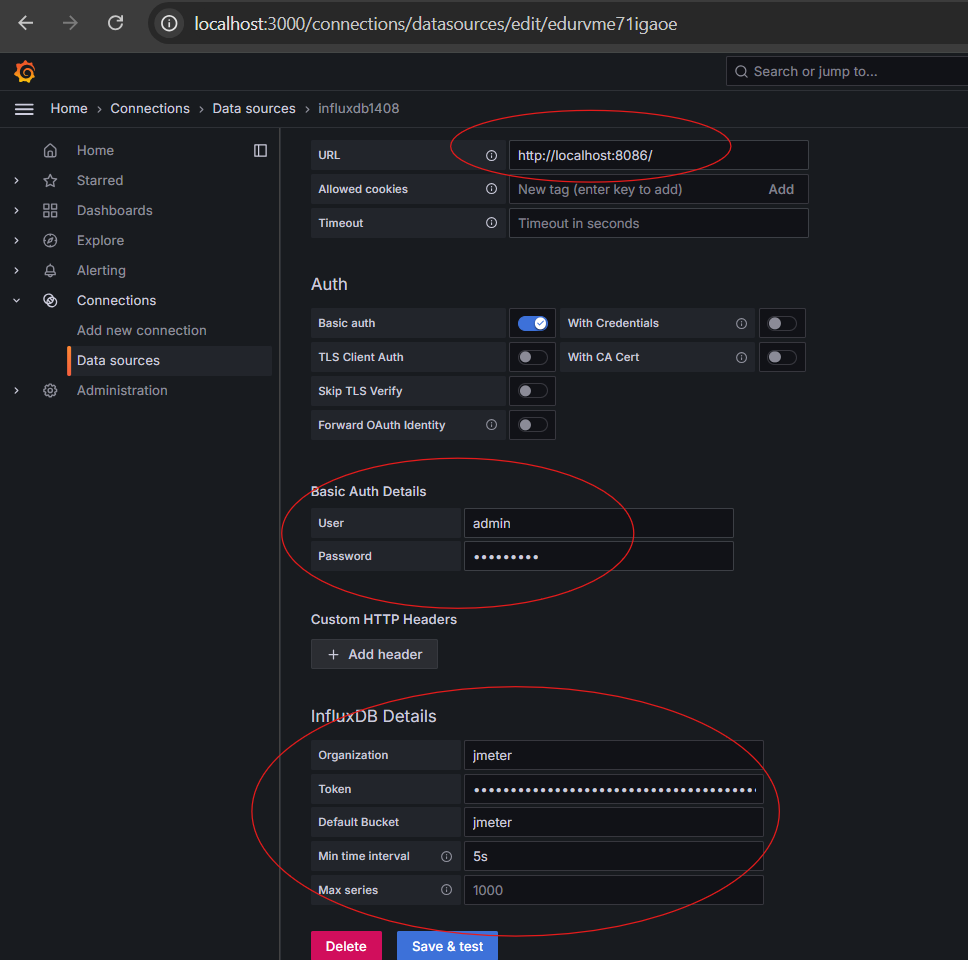
1. Click on Add Data Source and then click on influxdb

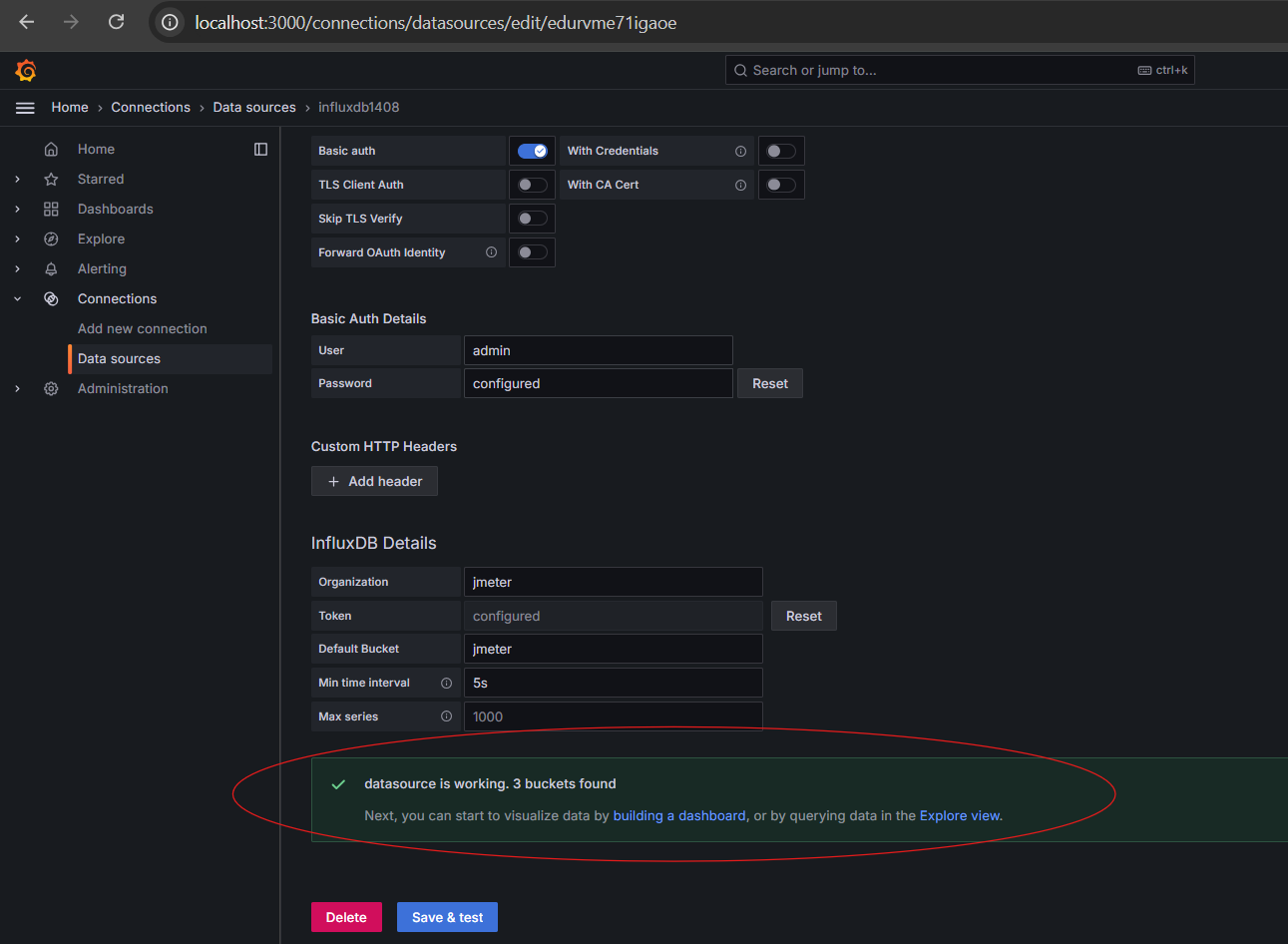
**Add Data Source**

The first thing we need to do is create a data source to pull data from our InfluxDB.

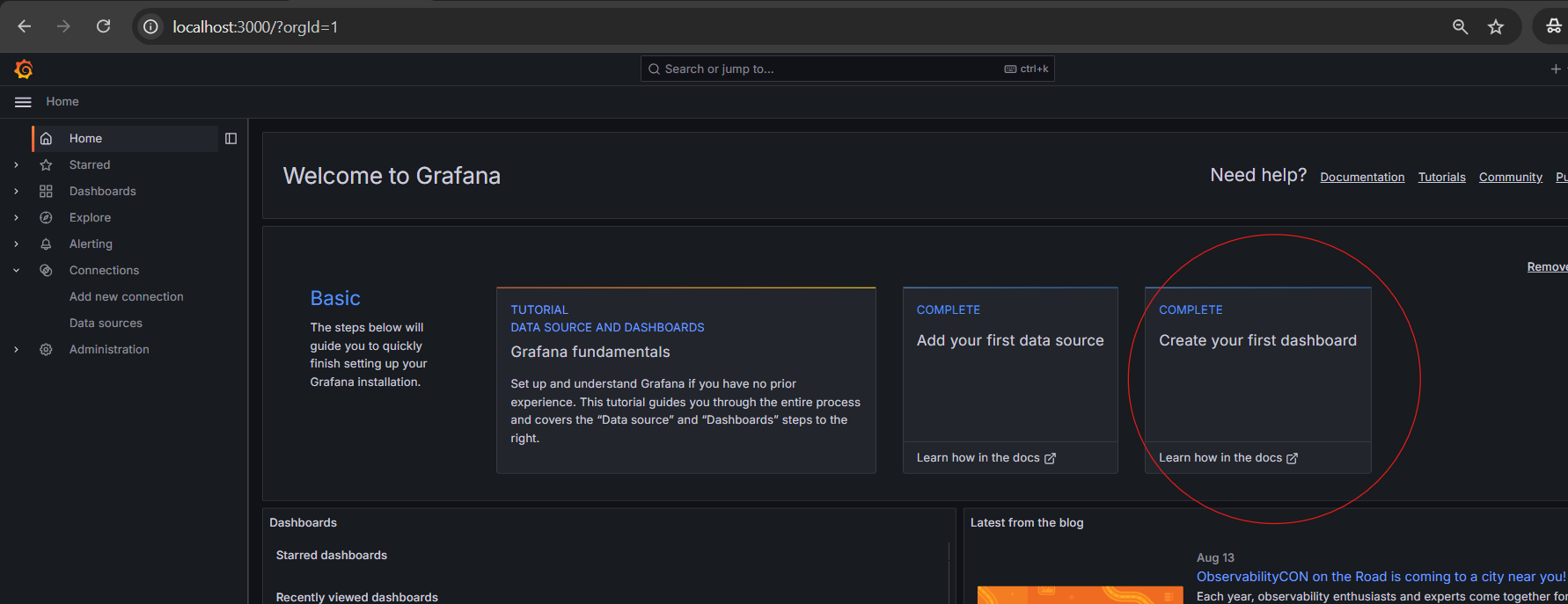
* Click *Add Data Source* and choose InfluxDB as the data source type.
* Enter Name of Grafana data source name
* Select Query Language as **FLUX**
* Specify the url: [http://localhost:8086](http://localhost:8086/)
* Enter User and Password under basic auth details
* Enter all details under InfluxDB Details
* Enter Organization name
* Enter Token
* Enter Default Bucket
* Configure minInterval time as 5s. You can also configure other settings for authentication.
* Click *Save & Test*hopefully you should see the Data source is working.







1. Click on create your first Dashboard

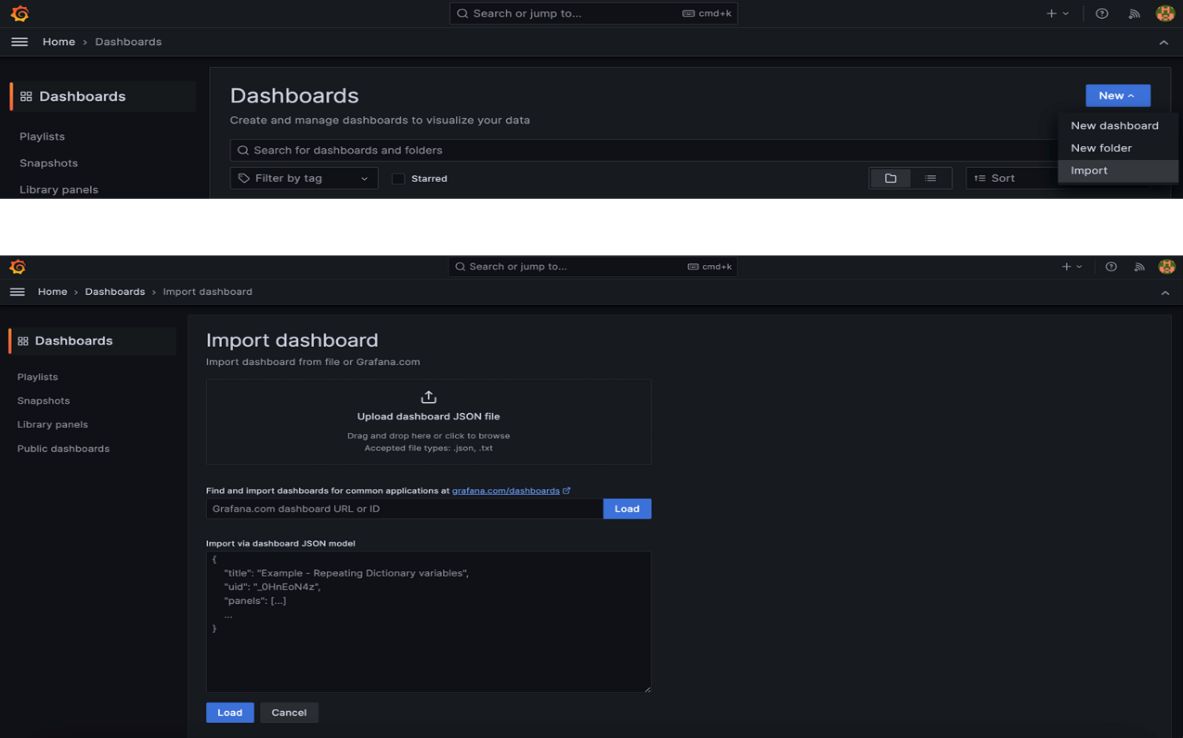


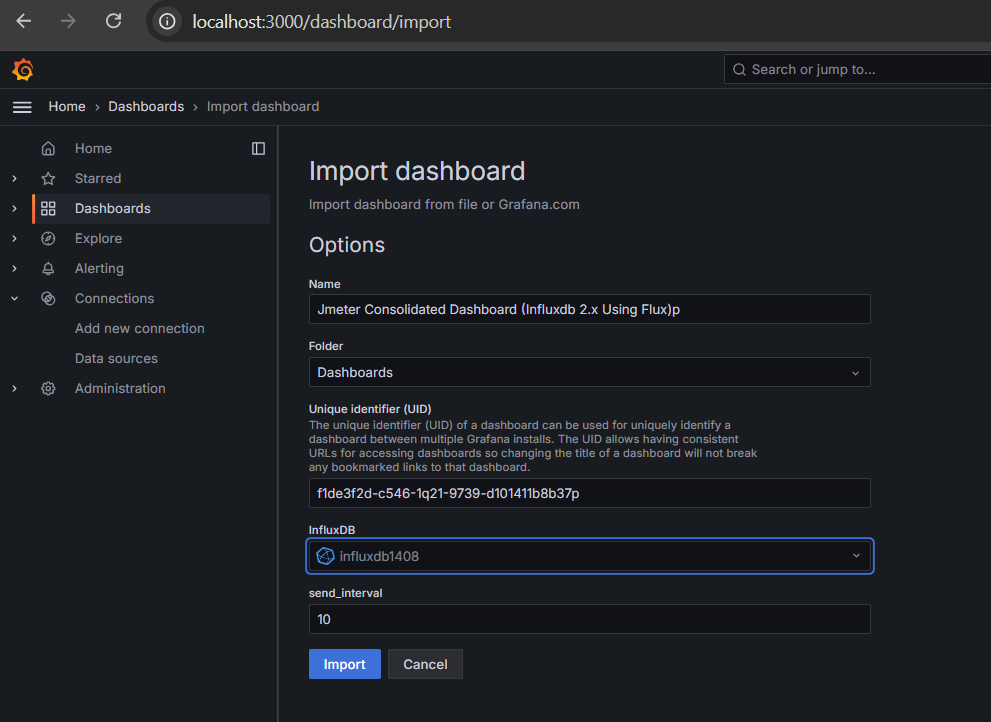
1. Instead of creating a fresh Dashboard in Grafana, we will use existing dashboard template (this is just a sample template, we can use any template as per the requirement 

Or

you can download Jmeter Grafana dashboard using flux from below Grafana website <https://grafana.com/grafana/dashboards/19950-jmeter-consolidated-dashboard-influxdb-2-x-using-flux/>

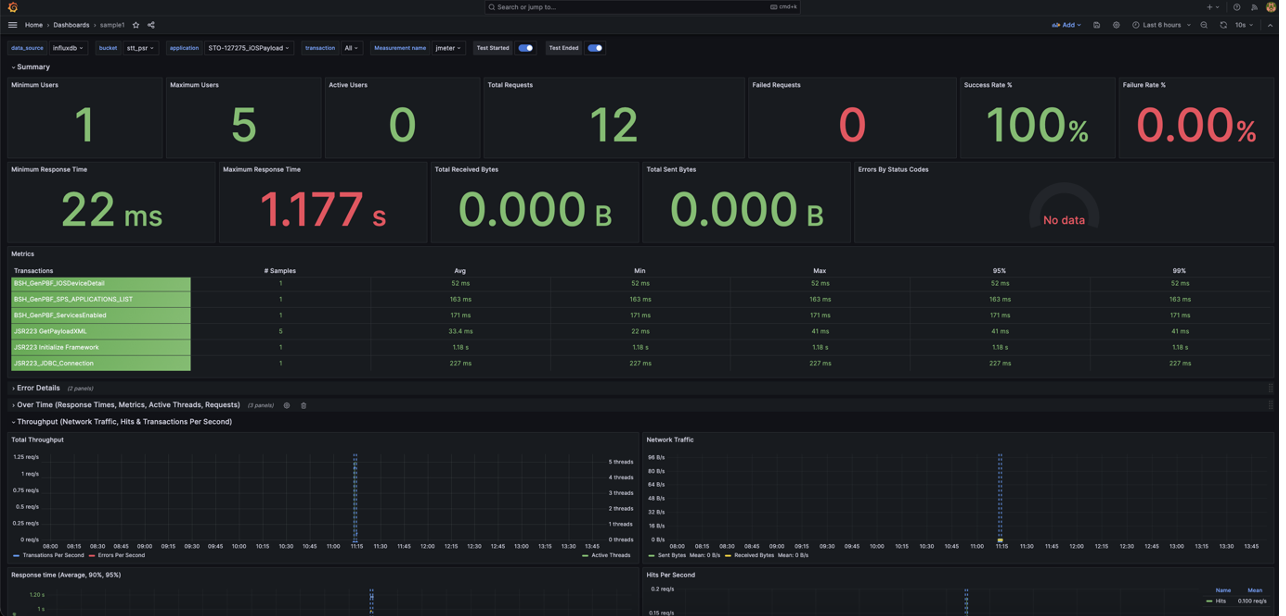
1. In Grafana, click on the**"+"**icon in top left corner and select Import Dashboard and click import. On the import dashboard screen please configure with following values





* **Name** — specify the dashboard name
* **Folder** — Grafana allows you to organize dashboards into folders.
* **Unique identifier** — provide an unique value to this field
* **InfluxDB**— select the name of the datasource we selected for it, in this case it is ‘influxdb1408’
* **send\_interval**— this should match the JMeter property backend\_influxdb.send\_interval which default value is 5 seconds.

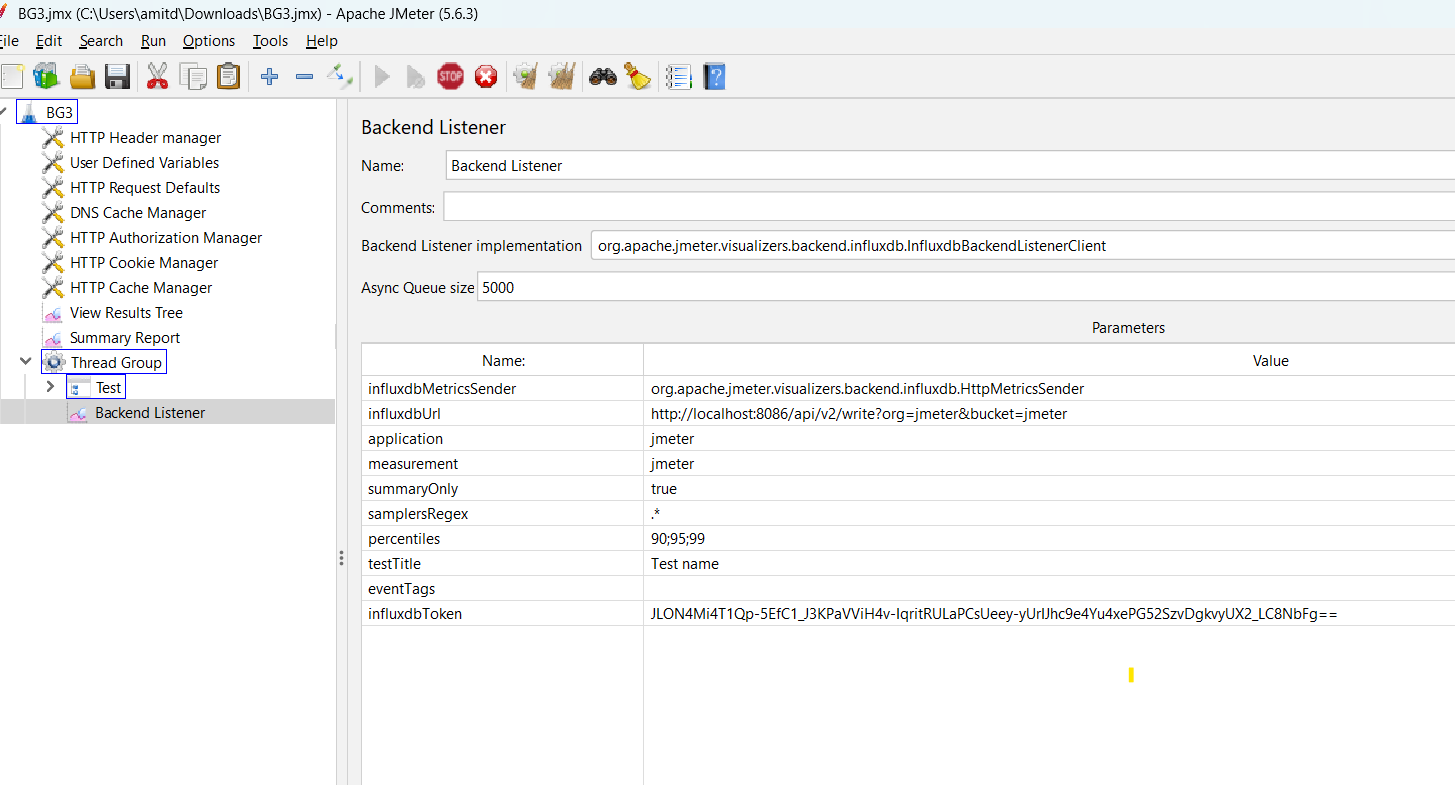
The sample Dashboard will look like as follows:

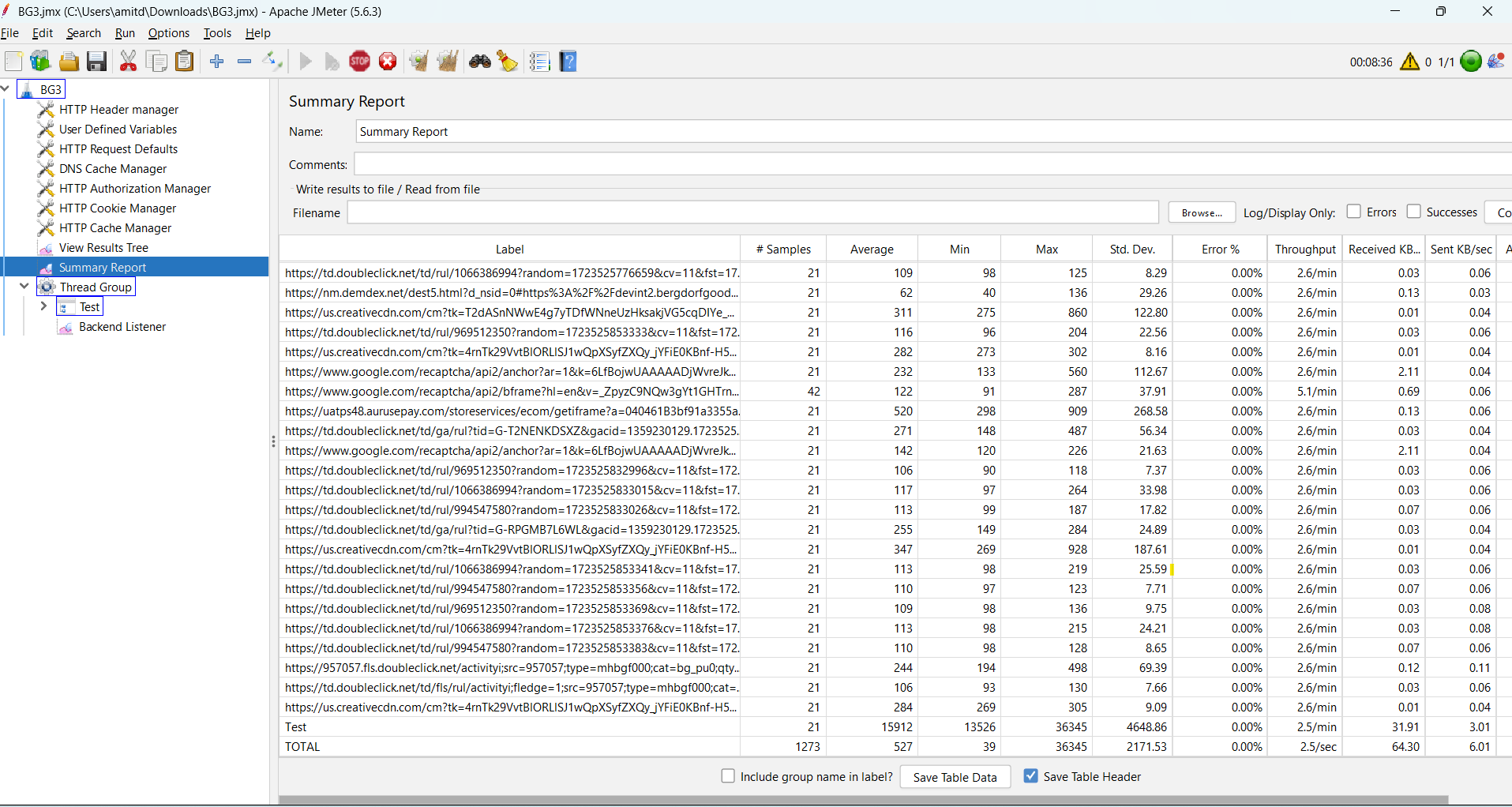


We are done with our Grafana setup. Now it’s time to run the actual JMeter test and monitor results in Grafana.

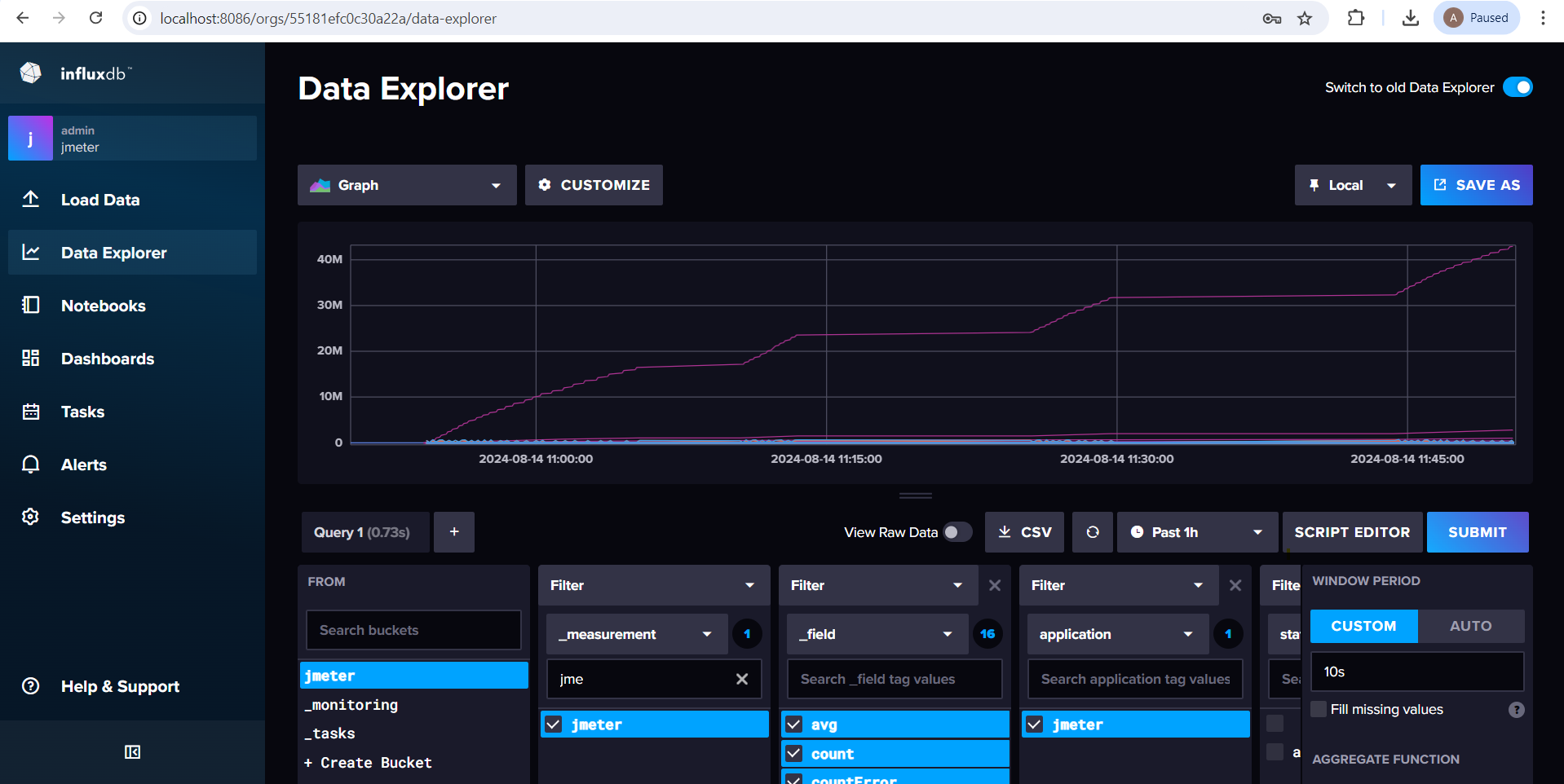
This completes our integration setup for Jmeter with InfluxDB and Grafana to view real time metrics results.

**Running Jmeter Test**





InfluxDB



Grafana Result

