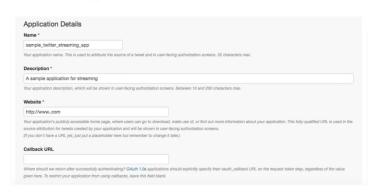
## MD FAKRUL ISLAM (613839)

I will show how to build a simple application that reads online streams from Twitter using Python, then processes the tweets using Apache Spark Streaming to identify hashtags.

1. Creating Credentials for Twitter APIs

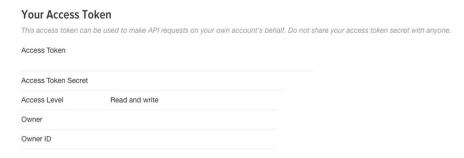
To get tweets from Twitter, I registered on **TwitterApps** by clicking on "Create new app" and then fill the below form click on "Create your Twitter app."

## Create an application



2. Second, I went to my newly created app and opened the "Keys and Access Tokens" tab. Then click on "Generate my access token."

The new access tokens will appear below.



And now I am ready for the next step.

## 3. Building the Twitter HTTP Client

In this step, I build a simple client that will get the tweets from Twitter API using Python and pass them to the Spark Streaming instance.

## 4. Setting Up Our Apache Spark Streaming Application

I made Spark streaming app that will do real-time processing for the incoming tweets, extract the hashtags from them, and calculate how many hashtags have been mentioned. I configured all those in my azure account.



Finally, here is a sample output of the Spark Streaming while running and printing the hashtag\_counts\_df, the output is printed exactly every two seconds as per the batch intervals.

| hashtag hasht | tag_count |
|---------------|-----------|
| #Hiring       | 703       |
| #job          | 603       |
| #CareerArc    | 591       |
| #Job          | 261       |
| #Jobs         | 233       |
| #hiring!      | 180       |
| #Hospitality  | 142       |
| #Veterans     | 115       |
| #hiring       | 100       |
| #Retail       | 99        |

| hashtag hashtag_count |     |
|-----------------------|-----|
| #Hiring               | 710 |
| #job                  | 608 |
| #CareerArc            | 597 |
| #Job                  | 268 |
| #Jobs                 | 239 |
| #hiring!              | 182 |
| ospitality            | 147 |
| #Veterans             | 118 |
| #hiring               | 104 |
| #Retail               | 99  |