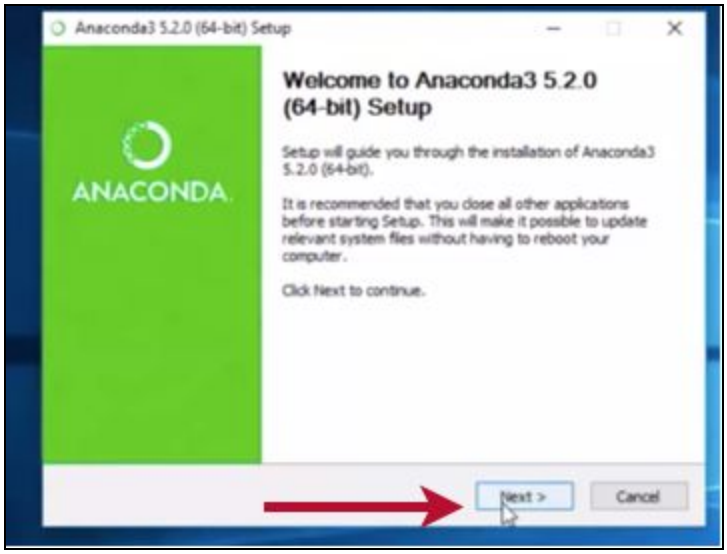
Windows Installation Guide

For Windows, it's highly recommended to Install the Anaconda package for hassle-free complete installation. This requires approx **3GB** of space. Link for Anaconda is here. (Remember to download the windows version, By default the link will open MacOS version of ANACONDA)

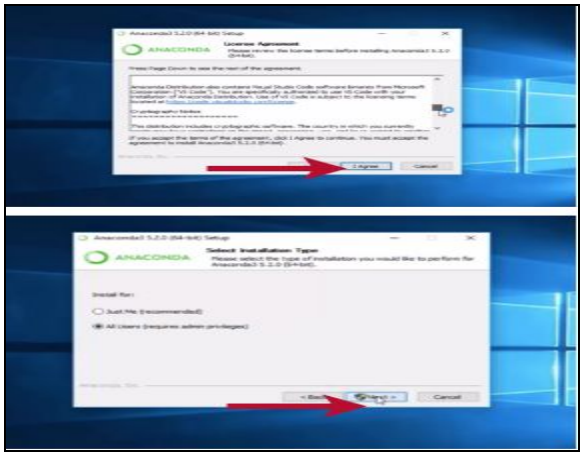
Download the 3.7 version and follow the below steps.

(**The latest ANACONDA version that will appear on your screen may not be the same as the document.**)

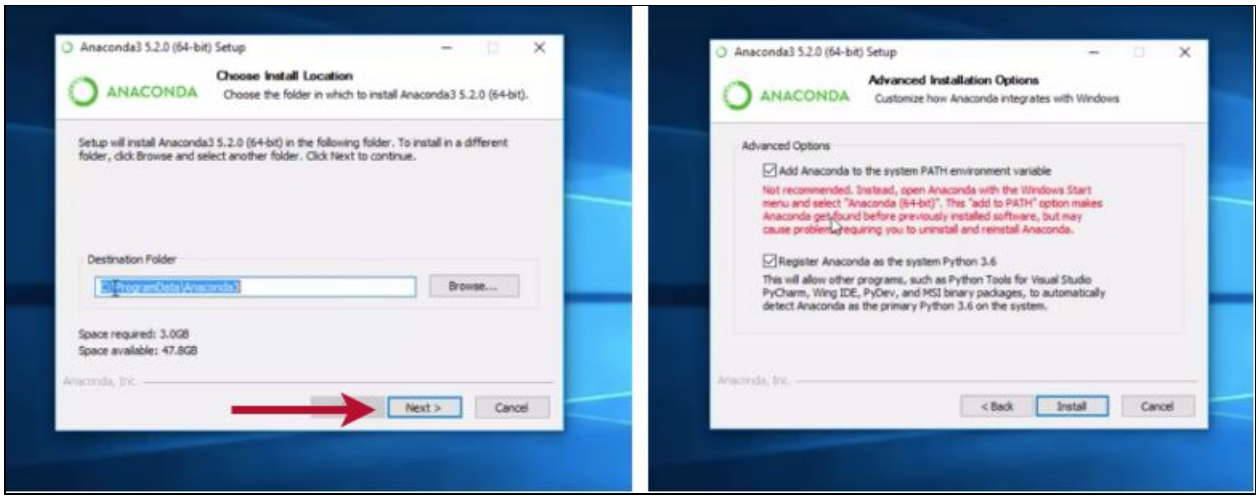
After clicking on the Downloaded Executable File, the following window will appear. Click on **Next.**



Click on **I agree** and in next window click on Radio button **All users** and then click on **Next** button on next pages that comes as shown below:

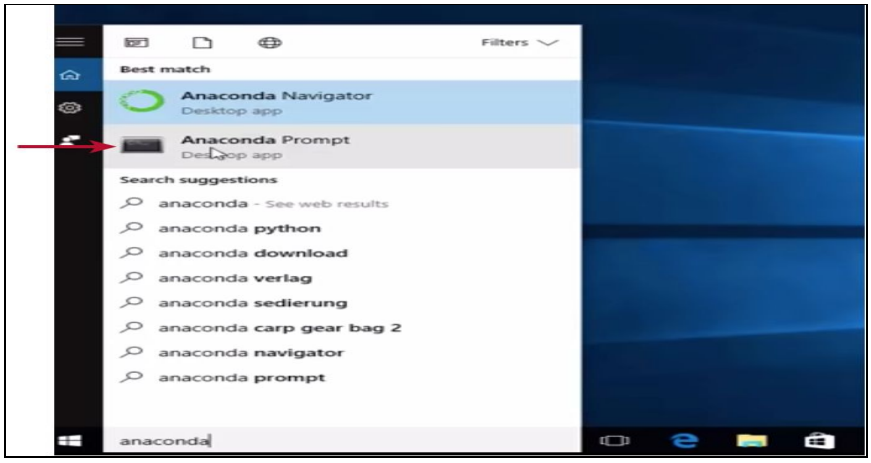


Let the default folder be as given and Click on **Next**. In the Next page, Check the first option if Python is not previously installed, otherwise choose the second option only.



Skip the Visual Studio Installation on next page and Complete the Installation.

After this go to the Navigator, type Anaconda and open the Conda Prompt.



After the Conda Prompt is open, use this guide to install the important packages on your Windows system.

Install pip in the Conda Environment

```
$ conda install git -y
```

Git is a version control system and it is used to download the jupyter notebooks.

To download the code in your current Repository use the command

```
$ git clone https://github.com/yolo2776/labfiles
```

Now change the current directory to the new one we just downloaded from github:

```
$ cd labfiles
```

Install pip in the Conda Environment

```
$ conda install pip
```

Python Packages

We will need certain Python packages throughout the lab sessions. These packages are listed below, with the commands to install them.

We recommend that you go through rest of this section to install the packages, however, if you don't want to install them individually, we provide a *requirements.txt* file, that can be used to download all the dependencies. Once you download the *requirements.txt* file, run the following command, after activating the virtual environment to install the dependencies:

```
$ pip install -r requirements.txt
```

Preprocessor

Preprocessor is a preprocessing library for tweet data written in Python[13].
Download the zip file from here.
Run the pip command as :

```
$ pip install <path to the file>\tweet-preprocessor-0.4.0.zip
```

Jupyter Notebook

Jupyter Notebook is widely used in academia and industry for interactable Python development environment. Although you can work with plain Python scripts as well, we highly recommend that you install it[3].

```
$ pip install jupyter
```

Once installed, you can run the notebook by:

```
$ jupyter notebook
```

Tweepy

We need a Python wrapper for Twitter API in order to write code in Python. There are number of Python wrappers available, but we recommend using *tweepy*[4].

```
$ pip install tweepy
```

Matplotlib
Matplotlib is a popular library used to create visualizations and plots[5].

```
$ pip install matplotlib
```

NetworkX
NetworkX is used to create, manipulate, and study of the structure and functions of complex networks[6].

```
$ pip install networkx
```

NLTK
Natural Language Toolkit is used for basic NLP tasks[7]:

```
$ pip install nltk
```

NumPy
NumPy is majorly used to run computation on high-dimensional arrays and has defined methods for high-level mathematical functions[8].

```
$ pip install numpy
```

Pandas
Python Data Analysis Library is a common data analysis library[9].

```
$ pip install pandas
```

SpaCy
SpaCy is another NLP library[10].

```
$ pip install spacy
```

If there is a problem with spacy installation, do the below troubleshooting.
Troubleshooting: Install spacy by using the binaries by searching for the .whl file on google.
To install a binary via .whl file, run:

```
$ python -m pip install <binary.whl>
```

Gensim
Gensim is used for topic modeling on text[11].

```
$ pip install gensim
```

Scikit-learn
It is a machine learning library for Python[12].

```
$ pip install scikit-learn
```

jsonpickle
jsonpickle is a library used for serialization and deserialization of complex Python objects to and from JSON[15].

```
$ pip install jsonpickle
```

word_cloud
A little word cloud generator in Python[16].

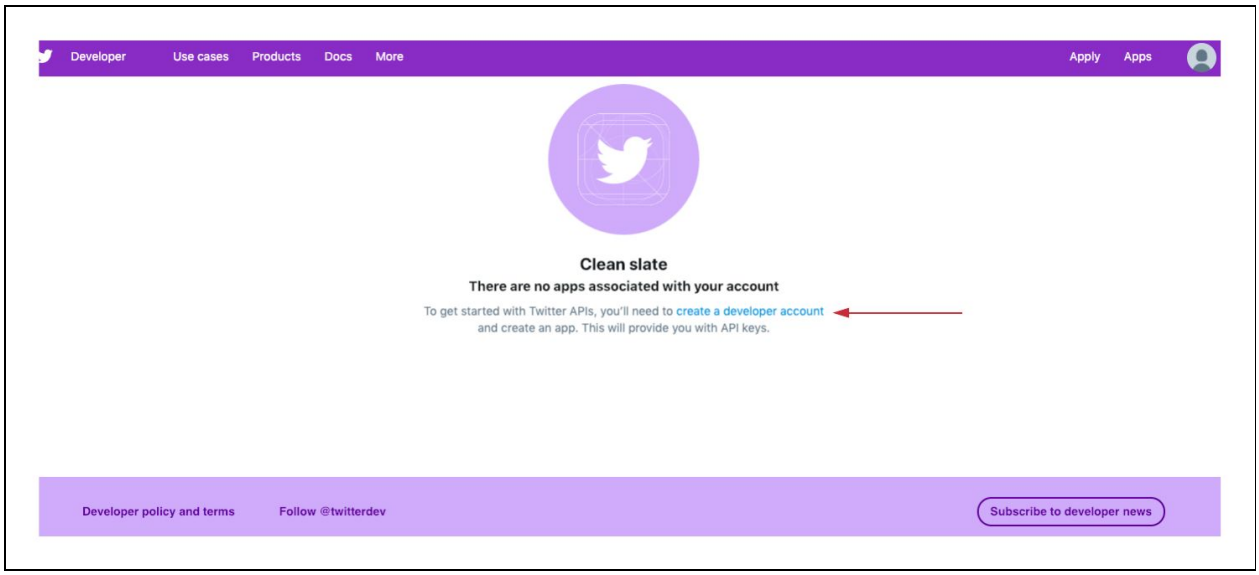
```
$ pip install wordcloud
```

Troubleshooting: https://github.com/amueller/word_cloud/issues/134#issuecomment-228208102

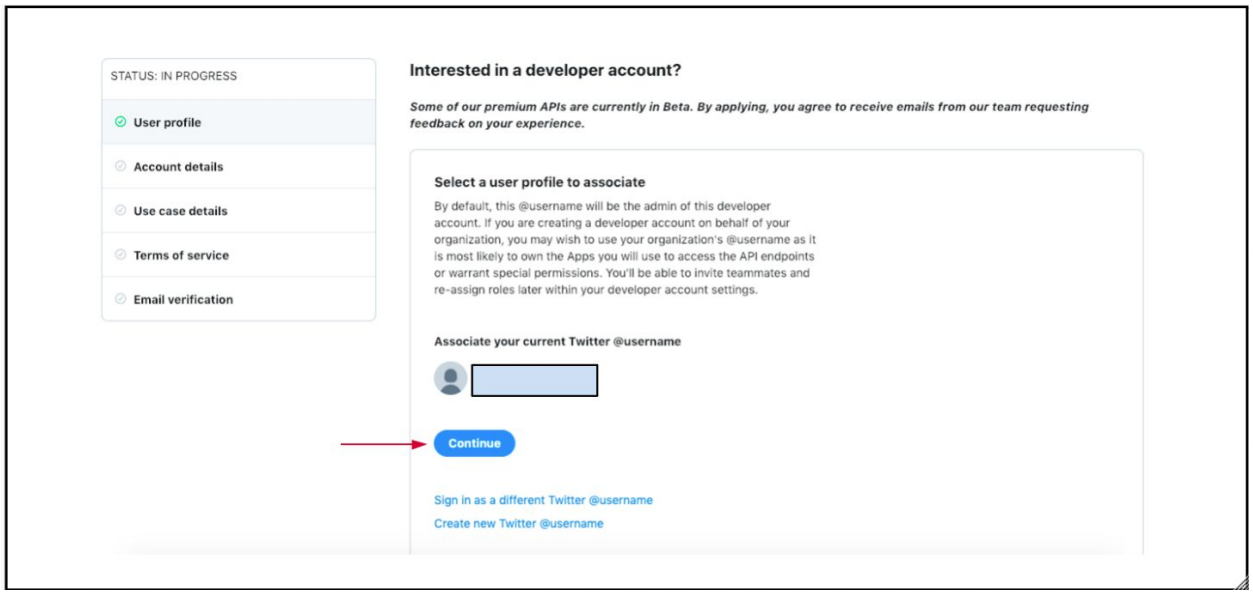
Twitter Developer App

In order to collect data from Twitter, we would need to create a Twitter Developer App. To do so, create an account on Twitter (if you don't already have one), and visit the following URL: https://apps.twitter.com/

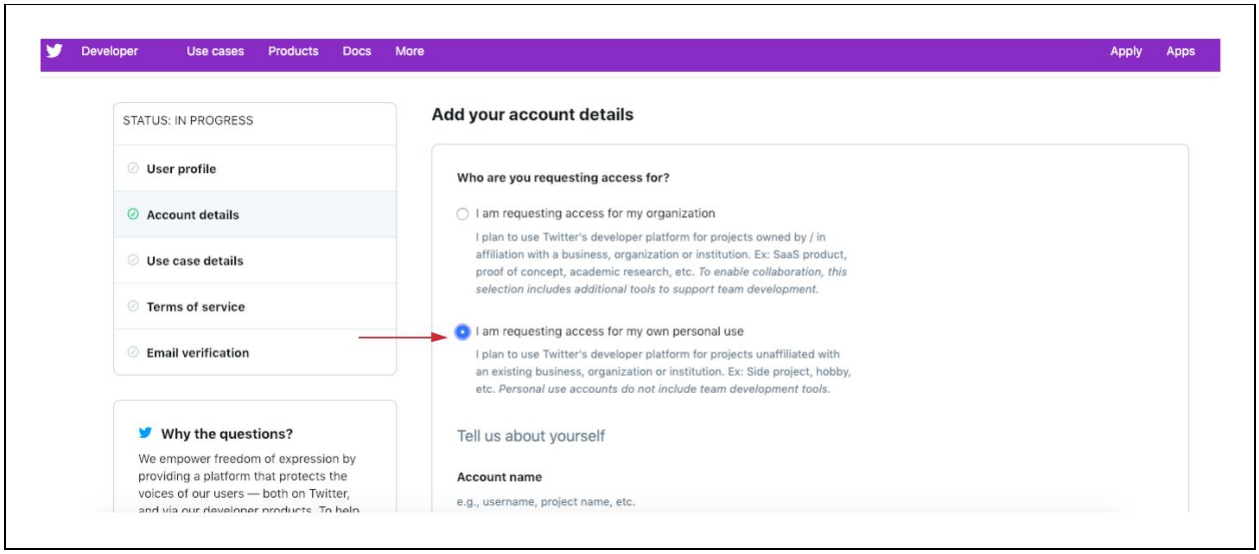
Click on the **create a developer account.**



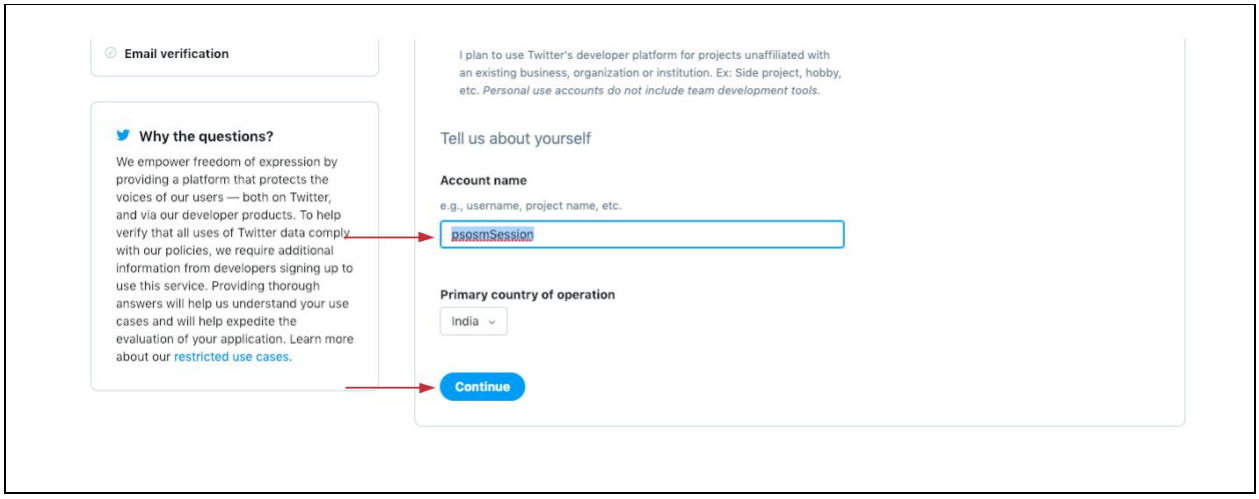
If your phone number is not verified, get it verified and click on **Continue** button



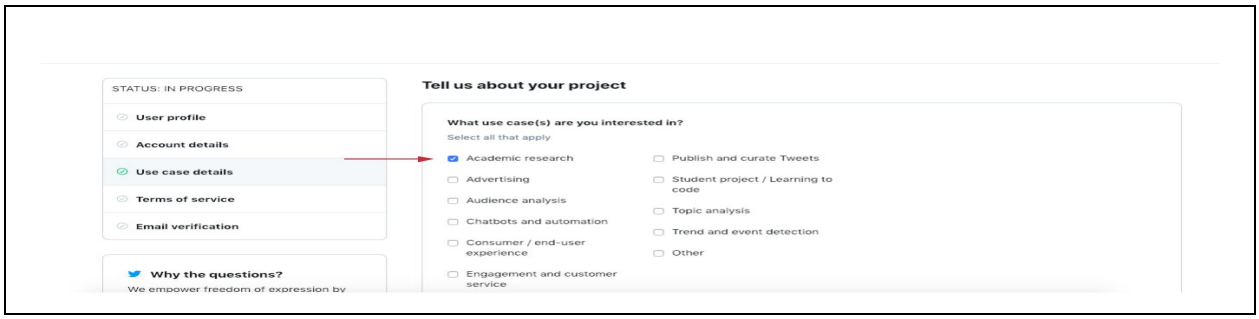
Select the radio button for **I am requesting access for my own personal use.**



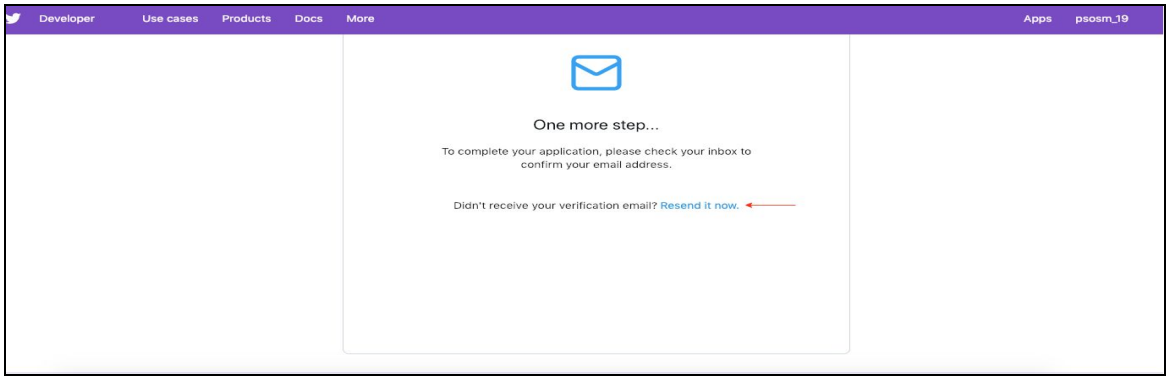
Fill an account name and click on **Continue**



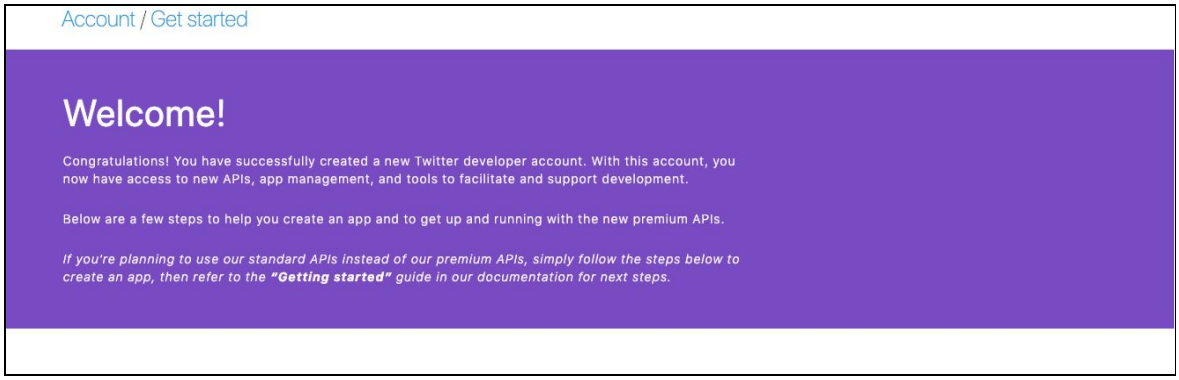
In use case details, check the tex for **Academic Research.**



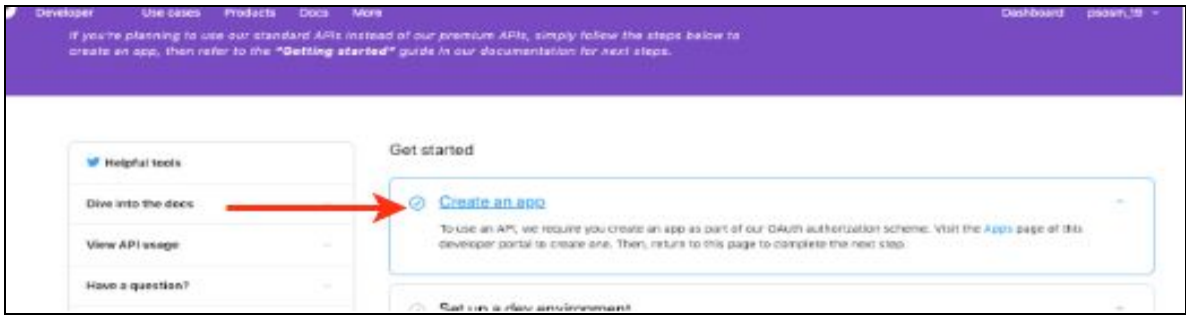
Click on **Resend it now**, if the verification is pending.



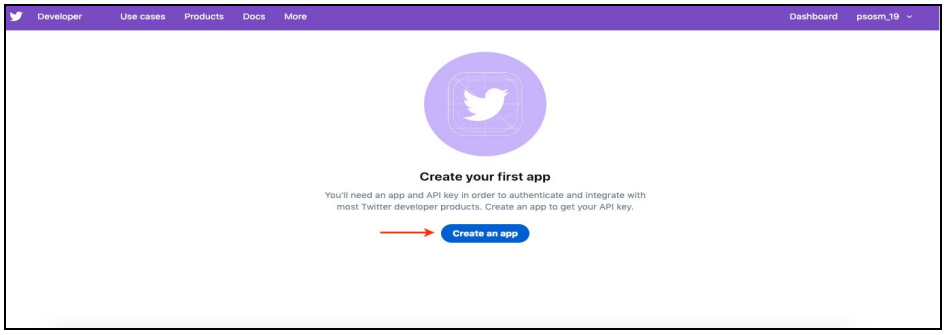
Once this is complete, you will get this Welcome message.



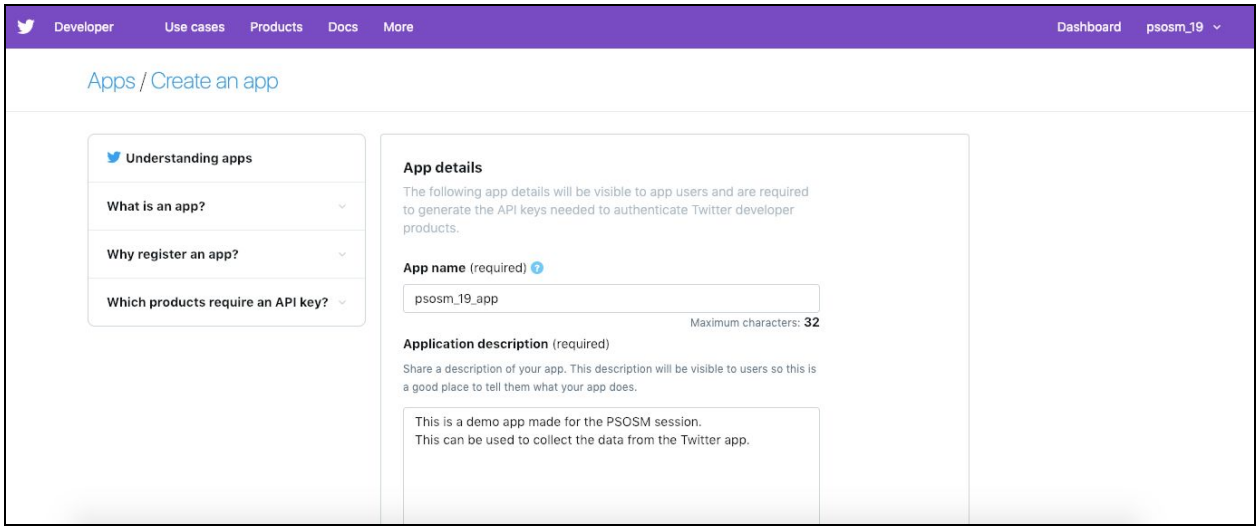
Now click on **Create an app**



Now click on **Create an app** button.



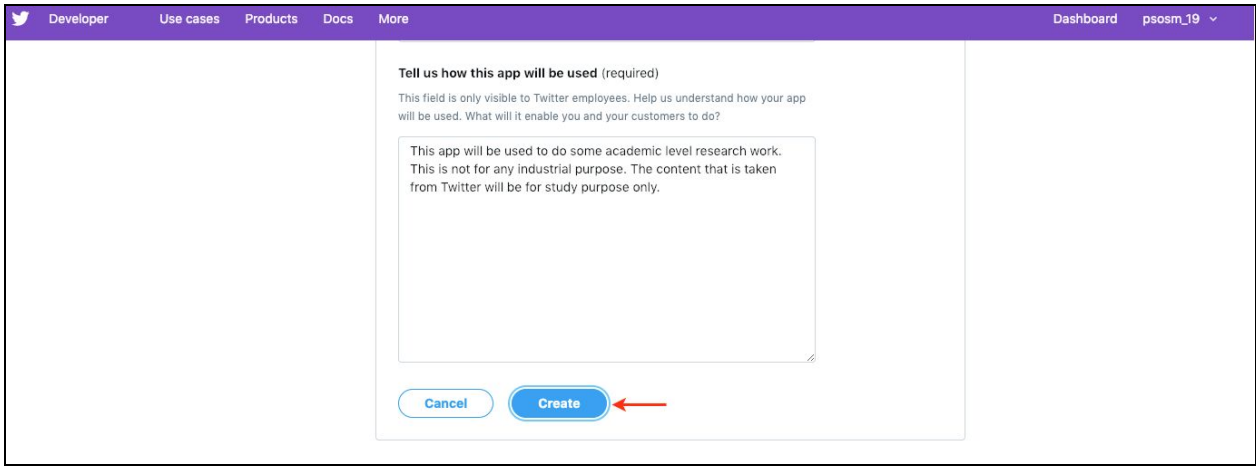
The next page would show up a form. Fill in the required values.



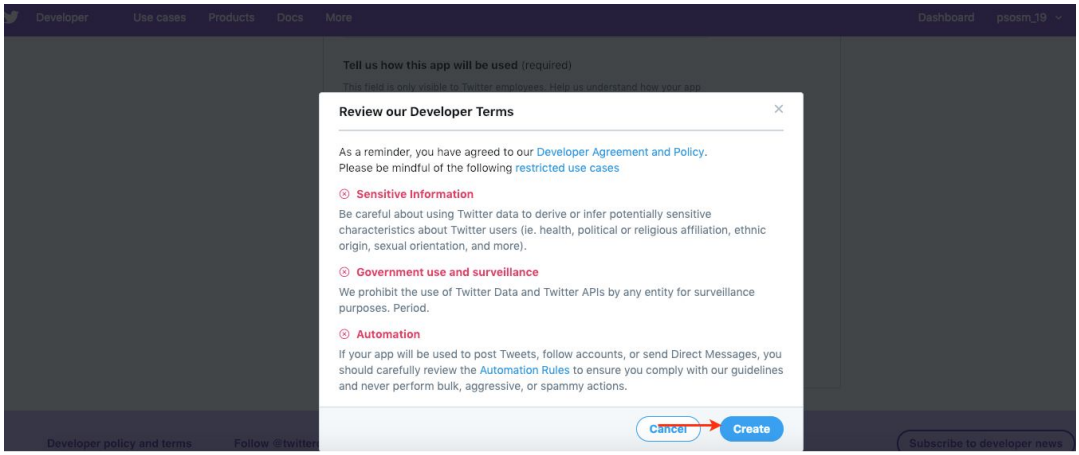
You can fill any name of your choice. For example:
App name: psosm_19_app
Application Description: This is a demo app made for the social media session.
This can be used to collect the data from the Twitter app.
Website URL: https://twitter.com
Callback URLs: https://twitter.com

Tell us how this app will be used (required): This app will be used to do some academic level research work. This is not for any industrial purpose. The content that is taken from Twitter will be for study purpose only.

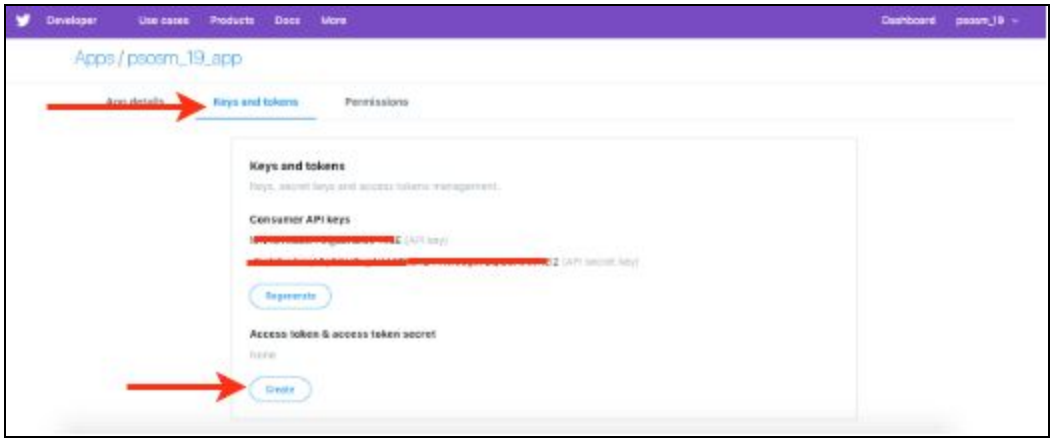
And click on **Create** button.



On the Review our Developer Terms click on **Create:**



Now go to keys and tokens Tab and note your Consumer API keys and click on **create** below Access token & access token secret.



Note the following and keep it with you for the session. Please keep your Keys just generated as a secret and don't share them with anyone.

- API key
- API secret key
- Access token
- Access token secret
