### **How to Install NLTK?**

# Note: You need internet connection to finish with the installation.

The following article Install NLTK provides an outline for installing NLTK. NLTK is a set of libraries for Natural Language Processing. It is a platform for building Python programs to process natural language. NLTK is written in Python programming language. It was developed by Steven Bird and Edward Loper. It supports research and teaching in NLP or closely related areas, including cognitive science, empirical linguistics, information retrieval, artificial intelligence, and machine learning. NLTK provides an easy to use interface.

## **NLTK (Natural Language Toolkit)**

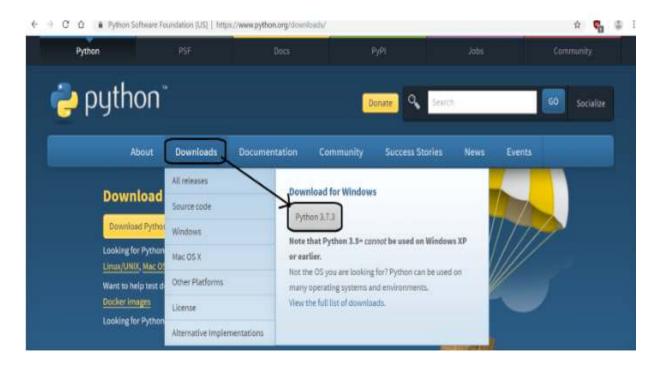
- Natural language processing(NLP) is a <u>part of artificial intelligence</u> which processes the language spoken by Humans. Thus, it helps humans to interact with computers even if they don't have knowledge of how to use it. Using NLP, humans just need to dictate the command to computers. With the power of Machine learning, Natural Language Processing is becoming popular and easier to implement. It is basically the technique to interact with humans and perform actions on voice commands.
- This enables devices to be used by even the novice who has no knowledge of technology. But the implementation of natural language processing is not easy, as a language spoken by Humans has no definite structure. It is ambiguous and depends on context words that can have a different meaning.
- NLTK has more than 50 corpora and lexical sources such as WordNet, Problem Report Corpus, Penn Treebank Corpus, etc. It also comes with a guidebook that explains the concepts of language processing by toolkit and programming fundamentals of Python which makes it easy for the people who have no deep knowledge of programming. It has a wide range of packages which makes it one of the powerful toolkits for NLP. Tokenization, Lemmatization, Stemming, Parsing, Character count, Punctuation, word count are some of these packages.

#### **Install NLTK for Windows**

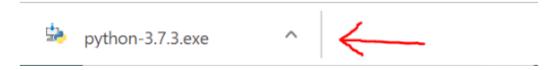
Below are the instructions to Install NLTK in Windows. These are based on the assumption that Python is not installed in the system. NLTK requires <u>Python versions</u> 2.7,3.5 and above.

**Step 1:** Download the latest version of Python for Windows from below link

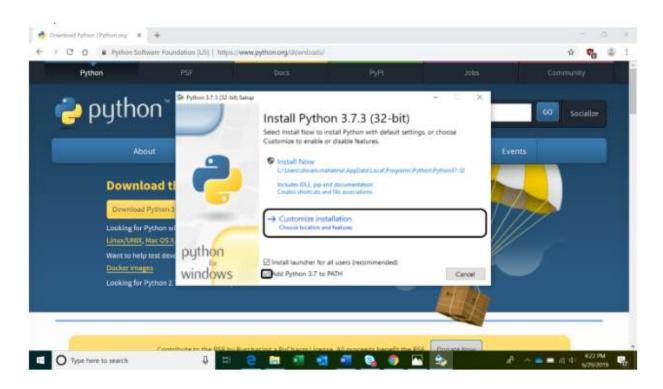
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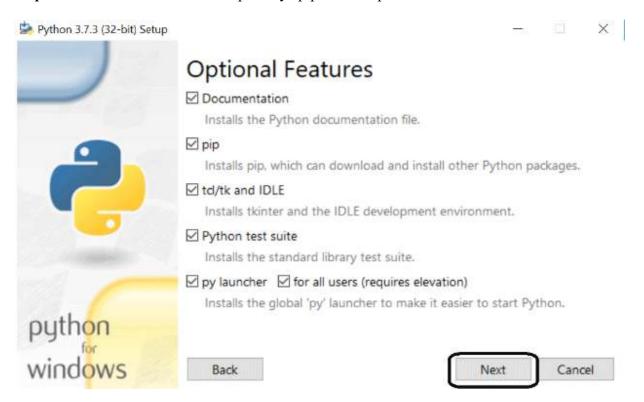
Step 2: Click on downloaded .exe to run it.



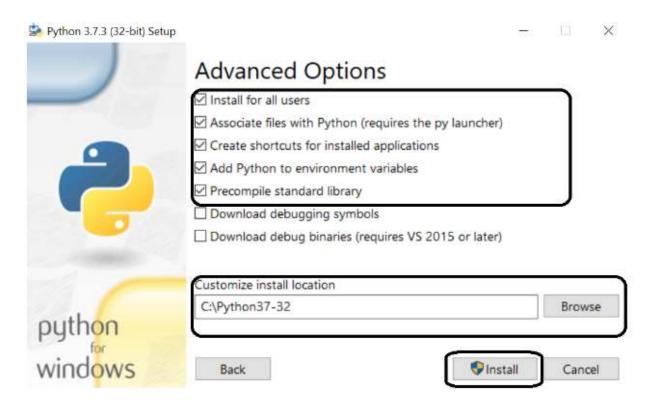
Step 3: Select customize installation.



Step 4: Check for all the features especially "pip" as it helps to install NLTK and click on Next.



**Step 5:** In the next screen select advanced options, select the path and click on install.



**Step 6:** Once the installation is successful close to the window.

You can use Pycharm IDE for development https://www.jetbrains.com/pycharm/



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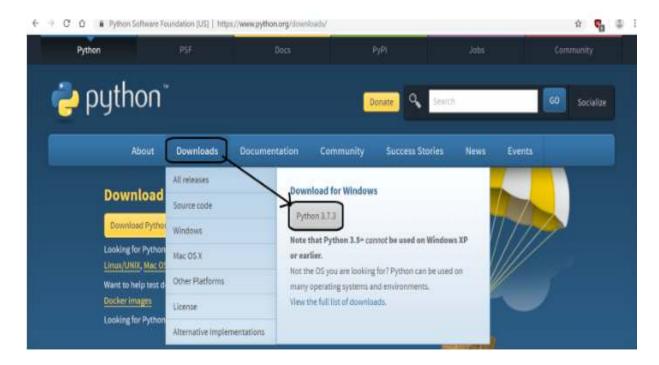
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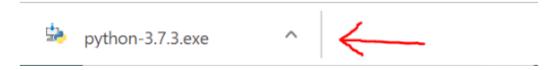
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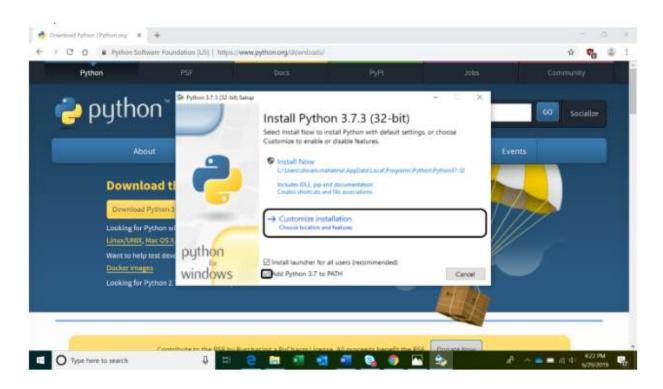
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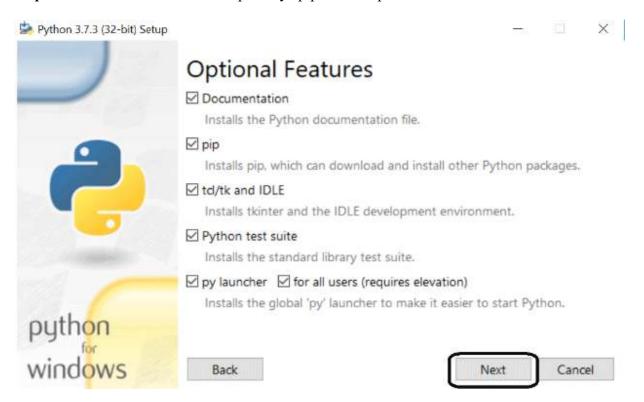
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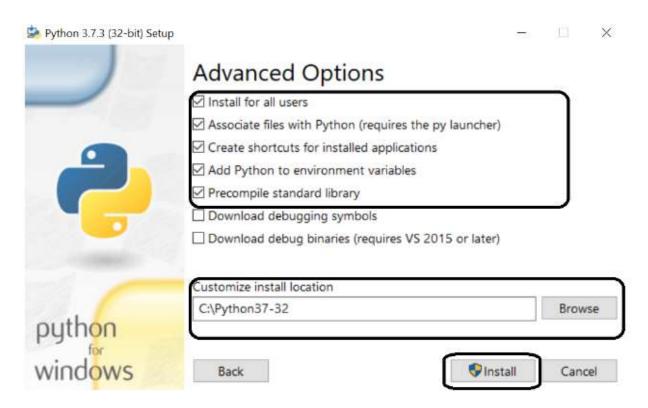
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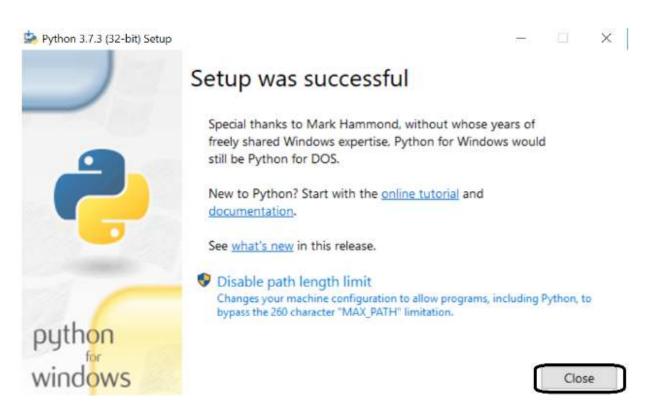
Step 4: Check for all the features especially "pip" as it helps to install NLTK and click on Next.



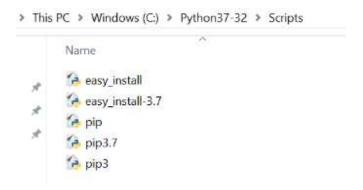
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**Step 6:** Once the installation is successful close to the window.



**Step 7:** Copy the path of Scripts folder to install NLTK in the same folder.



NLTK can be easily installed using a "pip" installer. Also, we have to install "numpy" as well.

Step 8: To install NLTK, open command prompt and type below command.

```
pip3 install nltk
```

Make sure the installation is successful.

After successful installation now its time to use the NLTK for Natural Language Processing.

**Step9:** Open Python Shell and type below command.

# import nltk

```
Python 3.7(32-bit)

Python
```

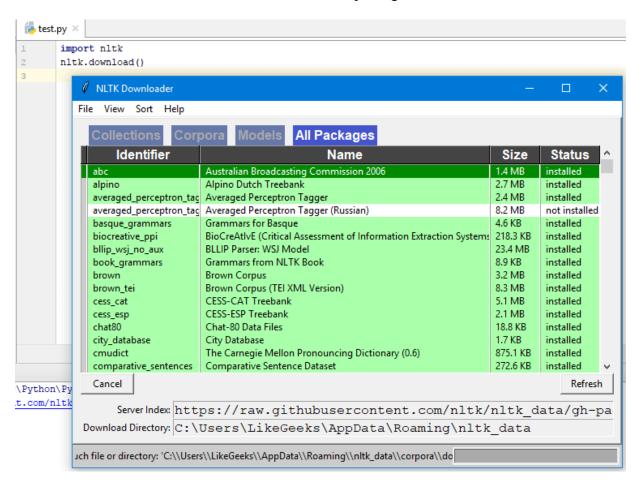
If it is imported without any error that means NLTK is installed properly.

Once you've installed NLTK, you should install the NLTK packages by running the following code:



1 import nltk 2 nltk.download()

This will show the NLTK downloader to choose what packages need to be installed.



You can install all packages since they have small sizes, so no problem. Now let's start the show.