

# TwitterBot - Automated Twitter Interaction

## Objective:

The main aim of the project is to develop a user-friendly TwitterBot that can automate certain actions on Twitter. Specifically, it will be able to log in to Twitter accounts and automatically like tweets based on user-specified hashtags. This tool aims to make engaging with tweets easier and more efficient for users.

## Scope:

The project focuses on creating a Python-based TwitterBot that utilizes the Selenium library for web automation. The TwitterBot will be able to perform the following tasks:

- 1. Secure Login:** The bot will securely log in to Twitter accounts using provided login credentials.
- 2. Tweet Interaction:** It will navigate to Twitter's search page and look for tweets based on hashtags specified by the user.
- 3. Automated Liking:** The bot will go through the search results, identifying tweets, and automatically liking them.
- 4. Scrolling:** It will scroll down to load more tweets for continuous interaction.

## Project Components:

- 1. Login Module:** This module ensures secure login to Twitter accounts using provided credentials.
- 2. Twitter Interaction Module:**
  - The bot navigates to Twitter's search page, searching for tweets based on user-specified hashtags.
  - It iterates through search results, identifying tweets to interact with.
  - For each tweet:
    - It locates the "like" button and clicks it if the tweet has not already been liked.
    - It scrolls down to load more tweets for further interaction.
  - The bot continues this process for a specified number of iterations or until no more new tweets are found.

## Technical Approach:

- Python is the primary programming language used for this project.
- Selenium is employed for web automation.
- The bot simulates user actions on the Twitter website to ensure compliance with Twitter's usage policies.
- Robust exception handling is integrated to effectively manage errors and enable continuous tweet interaction.
- The bot will close the web browser once its tasks are completed.

**Requirements:-**

1. Install selenium: pip install selenium
2. I used **Firefox** as a browser to implement this project.
3. Download FireFox webdriver:- geckodriver

**Conclusion:**

The TwitterBot project simplifies and automates tweet engagement on Twitter. It's a valuable tool for users interested in interacting with tweets related to specific topics or hashtags without the need for manual actions. This project showcases the practical use of Python scripting and web automation for social media interaction.