Roll no -15BCE025

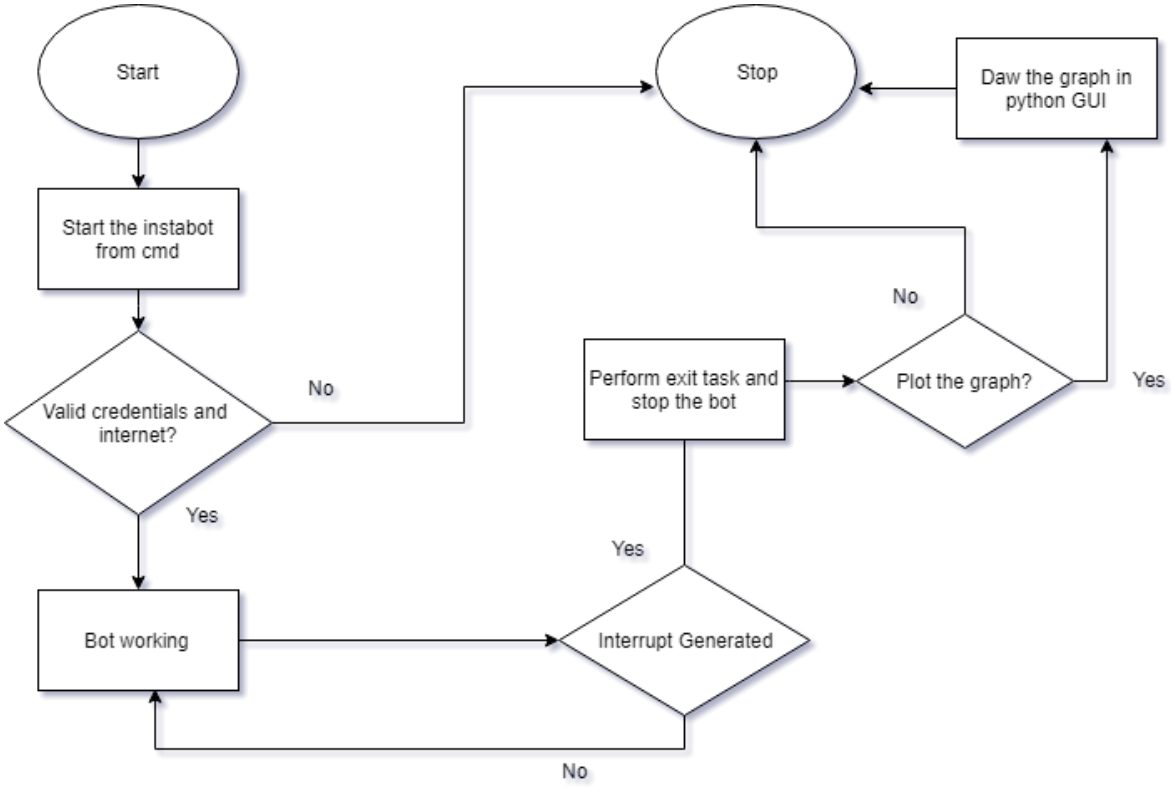
OSL

Python Project – Instagram Activity Tracker

Abstract

Python is widely used in many areas of Computer science such as Machine Learning, Data Mining, Big Data Analytics, and many more. Also, the world is moving towards automation to make routine and mundane works easy and quick. The motivation behind this project was to learn a new technology with a objective of applying it to real time application. Also, the reason behind choosing this project was because instagram is written in django which is a python framework, and the fascinating features of python can be seen and implemented in order to achieve intended results.

Project flow diagram

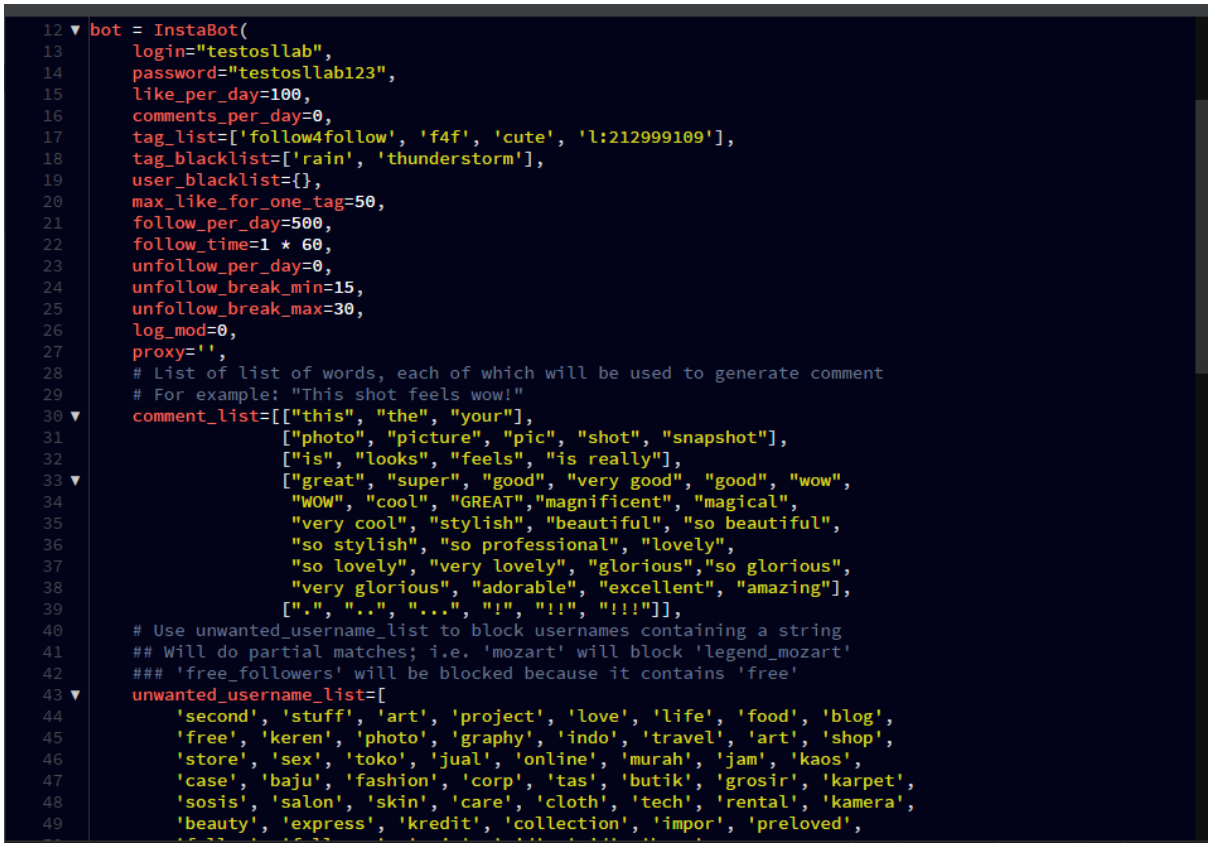


Functions/Features

The project is about tracking the followers and following as well as other parameters of an instagram account with respect to working time of the bot script. The basic working of the bot is that it logs in to the account with given credentials and performs a series of tasks.

It first finds an id based on the tags provided. It then likes posts of that particular id and follows it. It does the same with multiple ids and expects those ids to follow it back. Those ids which do not follow back are un-followed by the bot and the bot looks for new ids.

The parameters which can be set before staring the bot are as shown in the given image:



```
bot = InstaBot(
    login="testosllab",
    password="testosllab123",
    like_per_day=100,
    comments_per_day=0,
    tag_list=['follow4follow', 'f4f', 'cute', 'l:212999109'],
    tag_blacklist=['rain', 'thunderstorm'],
    user_blacklist={},
    max_like_for_one_tag=50,
    follow_per_day=500,
    follow_time=1 * 60,
    unfollow_per_day=0,
    unfollow_break_min=15,
    unfollow_break_max=30,
    log_mod=0,
    proxy='',
    # List of list of words, each of which will be used to generate comment
    # For example: "This shot feels wow!"
    comment_list=[["this", "the", "your"],
                  ["photo", "picture", "pic", "shot", "snapshot"],
                  ["is", "looks", "feels", "is really"],
                  ["great", "super", "good", "very good", "good", "wow",
                   "WOW", "cool", "GREAT","magnificent", "magical",
                   "very cool", "stylish", "beautiful", "so beautiful",
                   "so stylish", "so professional", "lovely",
                   "so lovely", "very lovely", "glorious","so glorious",
                   "very glorious", "adorable", "excellent", "amazing"],
                  [".", "..", "...", "!", "!!", "!!!"]],
    # Use unwanted_username_list to block usernames containing a string
    ## Will do partial matches; i.e. 'mozart' will block 'legend_mozart'
    ### 'free_followers' will be blocked because it contains 'free'
    unwanted_username_list=[
        'second', 'stuff', 'art', 'project', 'love', 'life', 'food', 'blog',
        'free', 'keren', 'photo', 'graphy', 'indo', 'travel', 'art', 'shop',
        'store', 'sex', 'toko', 'jual', 'online', 'murah', 'jam', 'kaos',
        'case', 'baju', 'fashion', 'corp', 'tas', 'butik', 'grosir', 'karpet',
        'sosis', 'salon', 'skin', 'care', 'cloth', 'tech', 'rental', 'kamera',
        'beauty', 'express', 'kredit', 'collection', 'impor', 'preloved',
```

After starting the bot, it will continue working unless an interrupt is generated by the user so as to indicate a stopping signal for the bot. After the interrupt, the bot stops and performs some exit tasks like unfollow or unlike and finally stops executing. At this moment the time is recorded and start time is subtracted from it to get the working time of the bot. This working time is converted to minutes and recorded in a file along with the date of that particular day. If the bot is operated more than once in a day then the time is updated for that day instead of having a completely new entry.

Limitations

The biggest limitation of the bot that it is not as smart as human, so there may be ambiguity for the bot at certain times to decide whether to follow the selected account or not as it might not be able to receive a follow back and would become an overhead. Detecting fake accounts, other bot accounts, celebrity accounts, etc. is a challenging task.

Another limitation is that it cannot operate its activities at a very fast rate because it would get detected and eventually get banned from instagram.

Conclusion

Hence after learning, coding and implementing this project, many new features of python were learnt and understood and it was realized that many tasks can be automated and run efficiently with the help of a computer rather than human intervention. Also graph based analysis was implemented which gives a better picture of the scenario rather than mere numbers.