Published in Towards Data Science

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Aug 23, 2020 · 4 min read ★ · Listen

Desktop Notifier Application Using Python in 5 Minutes

In this article, you will learn to create a customized desktop notifier application for your PC in a few simple steps using python.

Introduction

Have you ever tried to create a desktop notifications application based on your needs? do you know you can do this in a few simple steps using python?

Don't worry, let's do this from scratch, in this article we will be creating a desktop notification application for getting the daily stats of the dreadful coronavirus.

What you learn in this article

1. Installing required python packages.
2. Reading the coronavirus data from the web.
3. Creating a desktop notifier application.
4. Making your program run in the background.

Let's get started

Installing required python packages

we need to download two important packages for this application.

> ***Note:*** *you need to type this two commands in command prompt if you are using Windows or terminal if you are using Linux*

1. requests (for fetching data from the web)

```
pip install requests
```

2. plyer (for creating notifications on your PC)

```
pip install plyer
```


we can fetch the coronavirus data using the URL provided below, you are free to replace the country name with your own country name, for this application we will be using India's coronavirus data.

```
https://corona-rest-api.herokuapp.com/Api/india
```

the website looks like this

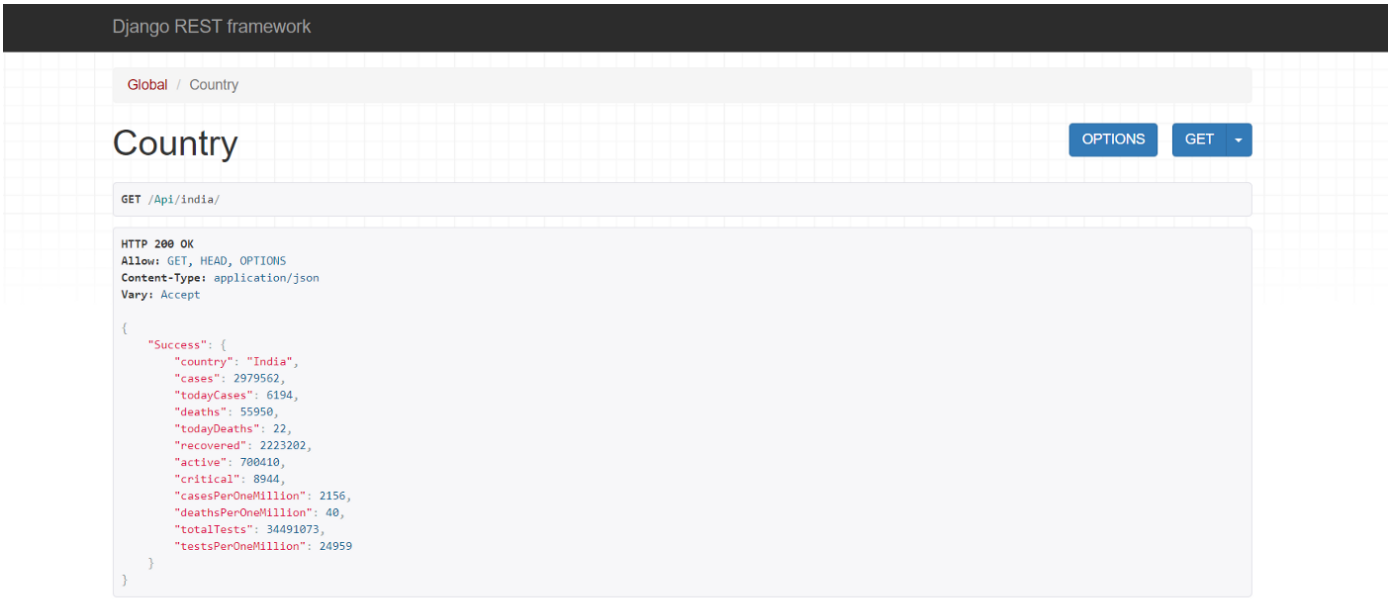

image by Satya Ganesh

Creating a desktop notifier application

By now, we have got all the tools required to build this application, so now let's code this application

> *Note: It will be easier if you code this in offline compiler than online compiler because in the later stages of this article we will be making this application run as background process in your PC, if you are running in online compiler then you need to download the file which is not necessary in offline compiler. I will suggest to use Visual Studio.*

```
import requests #for retreiving coronavirus data from web
from plyer import notification #for getting notification on your PC
```

DesktopNotifier_part1.py hosted with ❤ by GitHub view raw

part2 (retrieving the data from the web)

```
#let there is no data initially
covidData = None
try:
    covidData = requests.get("https://corona-rest-api.herokuapp.com/Api/india")
except:
    #if the data is not fetched due to lack of internet
    print("Please! Check your internet connection")
```

DesktopNotifier_part2.py hosted with ❤ by GitHub view raw

part3 (creating custom notification)

```
#if we fetched data
if (covidData != None):
    #converting data into JSON format
    data = covidData.json()['Success']

    #repeating the loop for multiple times
    while(True):
        notification.notify(
            #title of the notification,
            title = "COVID19 Stats on {}".format(datetime.date.today()),
            #the body of the notification
            message = "Total cases : {totalcases}\nToday cases : {todaycases}\nToday deaths :{toda
                      totalcases = data['cases'],
                      todaycases = data['todayCases'],
                      todaydeaths = data['todayDeaths'],
                      active = data["active"]),
            #creating icon for the notification
            #we need to download a icon of ico file format
            app_icon = "Paomedia-Small-N-Flat-Bell.ico",
```


```
25          time.sleep(60*60*4)
```

DesktopNotifier_part3.py hosted with ❤ by GitHub view raw

That's it, we are ready to run our application before we actually run our application you need to know some changes you can make to make your application customized according to your needs.

> ***timeout — tells how much time a notification should show up on thedesktop***
>
> ***time.sleep ()— tells after what interval of time the notification should popup***
>
> *you can find the icon I used* **here**

Here is how you see your notification after running your application.

image by Satya Ganesh

Making your application run in the background

So you finally created a python application and it runs fine when you go and run it. But don't you think this is a tedious job, every time running your application to get a notification?

Here is a solution, you can make this automated by running your application as a background process in your PC.

terminal in case you are using Linux.

> **Note:** *replace the <your-file-name-here> with your file name*

```
pythonw.exe .\<your-file-name-here>

example

pythonw.exe .\desktopNotifier.py
```

That's it your application now starts running in the background

How do you confirm that your application is running in the background?

open task manager in your pc and you can see that in background process you can see python is running

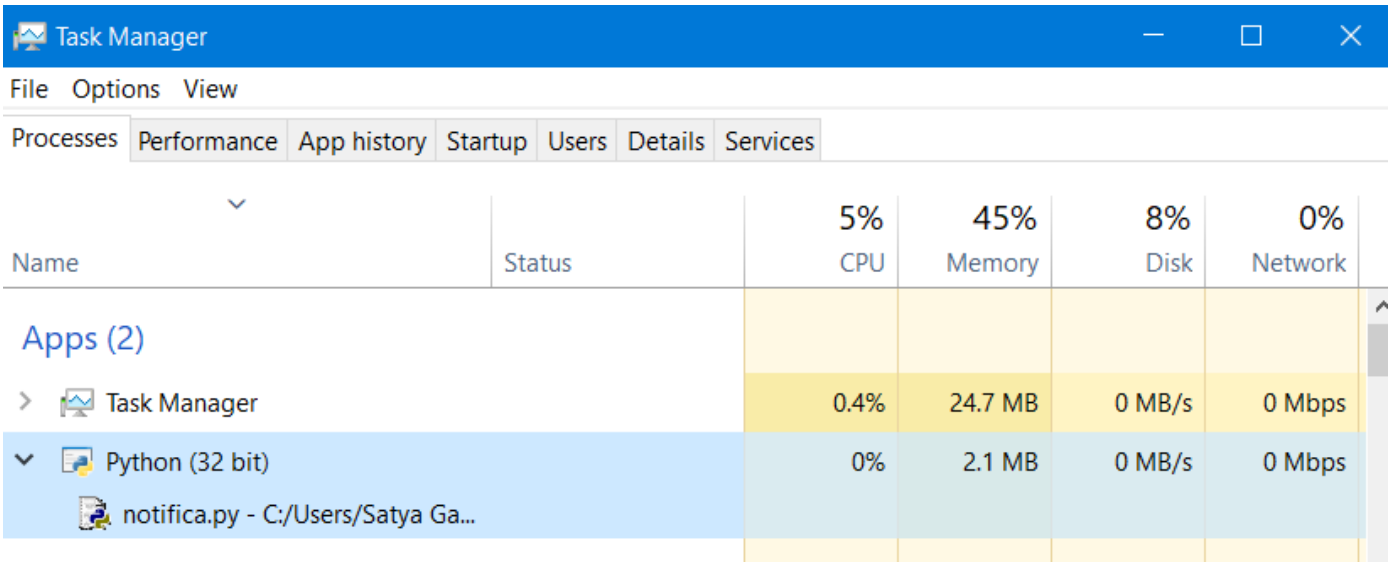

image by Satya Ganesh

How to stop getting notifications?

That’s simple, in the task manager kill the process named python. If you feel any difficulty in stoping the notification please feel free to post your difficulty in the comments section

2. Hourly notification to drink water.

and many more, it's completely up to you how to use this application.

Conclusion

I hope this article had created interest in you to create your own customized desktop notification application. This application works for any kind of operating system be it Windows or Linux or Mac. If you want a simpler desktop notification application, please feel free to ask in the comment section of this article

Thank you for reading 😄 Have a nice day