

Email Alerts on Whatsapp

Mudit Shishodia, Sachin Pal, Shyamsundar

Students, Department of Computer Science & Engineering,
Dronacharya Group of Institutions, Greater Noida, UP, India

Abstract: *This paper is written to introduce and make the people familiar with that user can track his emails on whatsapp which saves the users time and efforts.*

Keywords: Email, Twilio, WhatsApp, Automation

I. INTRODUCTION

Twilio is an American company based in San Francisco, California, which provides programmable communication tools for making and receiving phone calls, sending and receiving text messages, and performing other communication functions using its web service APIs.

A. Twilio Technology

Twilio uses Amazon Web Services to host its communication infrastructure via APIs. Twilio follows a set of architectural design principles to protect against unexpected outages and received praise for staying online during the widespread Amazon Web Services outage in April 2011.

Rather than using industry standard protocols such as SIP for call control Twilio uses a customized markup language known as TwIML to allow for direct integration with its services. Twilio and the customer typically exchange TwIML documents via HTTP Webhook.

B. Twilio Sandbox for WhatsApp

The Twilio Sandbox for WhatsApp is a pre-configured environment available through the Twilio Console in which you can prototype sending outbound messages, replying to incoming messages, and configuring things like message delivery callbacks. While you wait for your WhatsApp Business Profile to be connected with your Twilio phone number, it's a quick way to test out the functionality of the WhatsApp Business API with Twilio.

The Sandbox is pre-provisioned with a Twilio phone number (+1-415-523-8886) that is shared across all sandbox users. However, other users who share the same sandbox number won't receive your messages, only the ones who have opted in to your sandbox.

C. PyCharm

PyCharm is an integrated development environment (IDE) used in computer programming, specifically for the Python programming language. It is developed by the Czech company JetBrains (formerly known as IntelliJ). It provides code analysis, a graphical debugger, an integrated unit tester, integration with version control systems (VCSes), and supports web development with Django as well as data science with Anaconda.

PyCharm is cross-platform, with Windows, macOS and Linux versions. The Community Edition is released under the Apache License, and there is also an educational version, as well as a Professional Edition with extra features (released under a subscription-funded proprietary license).

D. Python (Programming Language)

Python is a high-level, interpreted, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation.

Python is dynamically-typed and garbage-collected. It supports multiple programming paradigms, including structured (particularly procedural), object-oriented and functional programming. It is often described as a "batteries included" language due to its comprehensive standard library.

Guido van Rossum began working on Python in the late 1980s as a successor to the ABC programming language and first released it in 1991 as Python 0.9.0. Python 2.0 was released in 2000 and introduced new features such as list comprehensions, cycle-detecting garbage collection, reference counting, and Unicode support. Python 3.0, released in 2008, was a major revision that is not completely backward-compatible with earlier versions. Python 2 was discontinued with version 2.7.18 in 2020. Python consistently ranks as one of the most popular programming languages.

E. IMAP & SMTP

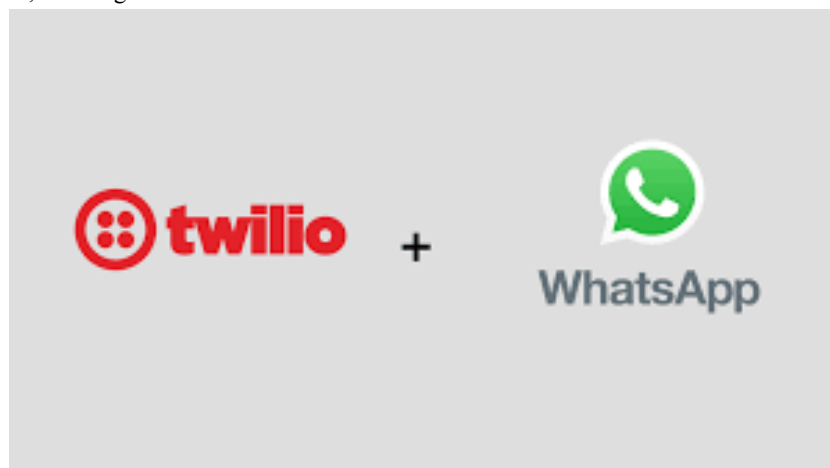
IMAP (Internet Access Message Protocol) is an email protocol that deals with managing and retrieving email messages from the receiving server. Since IMAP deals with message retrieval, you will not be able to use the IMAP protocol to send email. Instead, IMAP will be used for receiving messages. SMTP stands for Simple Mail Transfer Protocol and it's the industry standard protocol for email sending. With SMTP you are sending, relaying, or forwarding messages from a mail client (like Microsoft Outlook) to a receiving email server. A sender will use an SMTP server to carry out the process of transmitting an email message. IMAP is for the retrieval of emails and SMTP is for the sending of emails. That means IMAP talks to both the client and server to get emails, and SMTP talks only to servers to send emails.

II. EXISTING PROBLEM

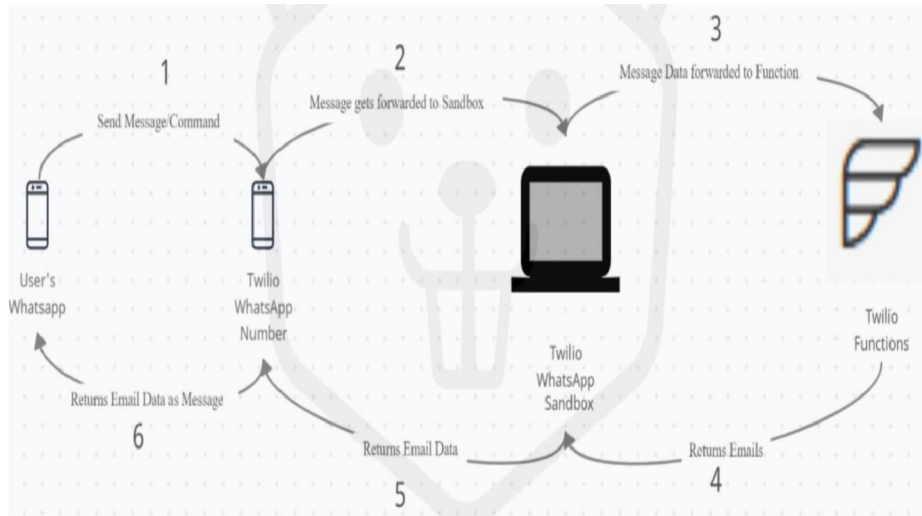
Emails have become one of the most used digital communication medium. But, sad truth, that since they are so aggressively used, it's quite difficult to keep up with them. Moreover, people keep on subscribing to new newsletters every now and then, which also adds to this cause. So, in order to make our life a little bit easier, we can build a tool which will fetch us the various details from our mail box on query. Opening another application and checking for mails has been a biggest head ache over time because we spend a lot of time on social media apps like WhatsApp and we never wish to open some other application and check for mails. So, in order to save the time which increases the productivity of our time we can make use of WhatsApp and search for mails of our mail account in WhatsApp.

III. PROPOSED SYSTEM

We will be creating a workflow in Twilio which queries the requested email data, according to a given search criteria, and sends their details to WhatsApp. Twilio is an efficient platform which provides us with the features needed to accomplish this. It's a message, email, call and notification tool/platform. We'll be utilizing some of its features through this project. The Twilio sandbox for WhatsApp is a pre-configured environment available through the Twilio Console in which you can prototype sending outbound messages, replying to incoming messages, and configuring things like message delivery callbacks. IMAP is an email retrieval protocol which does not download the emails. It just reads them and displays them. This is very useful in low bandwidth condition. Python's client-side library called imaplib is used for accessing emails over imap protocol. At last, we integrate the IMAP function into Twilio Functions.



IV. PROJECT WORKFLOW



4.1 Functional Requirements

The following are the Functional requirements of our system:

1. Initially Twilio is needed to automate the WhatsApp for Email Alerts.
2. Using IMAP and SMTP protocols we can connect to the mail account of an user in order to send and receive messages respectively.
3. We providing responses from the web app deployed on the server upon user queries for fetching and sending mails.

4.2 Non – Functional Requirements

In systems engineering and requirements engineering a non-functional requirements is a requirement that specifies criteria that can be used to judge the operation of a system rather than specific behaviours. The project non-functional requirements include the following:

- Availability
- Flexibility
- Scalability
- Usability
- Performance

V. INTERPRETATION AND RESULTS

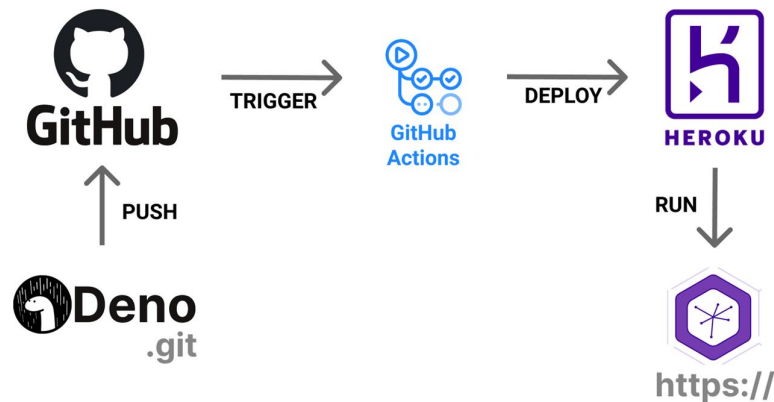
5.1 Software Specifications

Software's used are:

- PyCharm IDE
- Twilio WhatsApp Sandbox
- IMAP & SMTP
- Python programming language
- Git & Heroku

5.2 Hardware Specifications

We require a Computer running Windows 10 with PyCharm configured and we will deploy our project through PyCharm to the Heroku server.



5.3 Twilio Tool



VI. CONCLUSION

The Twilio Sandbox for WhatsApp is a pre-configured environment available through the Twilio Console in which you can prototype sending outbound messages, replying to incoming messages, and configuring things like message delivery callbacks. Twilio is not a free platform, it is a paid-service/platform. So, in order to use it more widely we need to purchase the subscription.

ACKNOWLEDGMENT

We three students of Computer Science & Engineering of 4th year in Dronacharya Group of Institutions have prepared a final year project named “Email alerts on Whatsapp”. We heartly express our sincere gratitude to Manoj kumar sir who guided us for completing of the final year project. We are also thankful to all our teachers for explaining on critical aspect of topics related to project. We are also thankful to all of our faculty members for our project completion.

REFERENCES

- [1]. Crio Projects – Email Alerts on WhatsApp <https://www.crio.do/projects/javascript-whatsapp-email-alerts/>
- [2]. Twilio Docs for WhatsApp Automation <https://www.twilio.com/docs/whatsapp/tutorial/send-whatsapp-notification-messages-templates>
- [3]. 5 parts of a Highly Converting Email – Analysis for Optimization by Nitin Deshdeep <https://vwo.com/blog/perfect-marketing-email>
- [4]. <https://github.com/nikhilkumarsingh/WhatsAppBotTut>
- [5]. <https://docs.python.org/3/library/imaplib.html>
- [6]. <https://www.tutorialspoint.com/send-mail-from-your-gmail-account-using-python>
- [7]. <https://seaborn.pydata.org/generated/seaborn.countplot.html>
- [8]. <https://www.jetbrains.com/pycharm/download/>
- [9]. <https://www.python.org/downloads/release/python-363/>