**WhatsApp API**

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**CLUSTER INNOVATION CENTER**

**UNIVERSITY OF DELHI**

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**Summer Internship: Projects drawn from the World around us**

**Certificate of Originality**

The work embodied in this report entitled “**WhatsApp API** ” has been carried out BY Aakash Singh and Keshav Sharma for the paper “**Summer Internship: Projects drawn from the World around us** ”. We declare that the work and language included in this project report is free from any kind of plagiarism. Any illustrations that are not the work of the author of this report have been used with the explicit permission of the originator and are specifically acknowledged.

Signed:

Akash Singh Keshav Sharma

**Acknowledgment**

We are thankful to **Mr. Vivek Kumar and Mr. Tapas (CIC Alumnus)** for guiding us throughout our project and helping us to complete it within time. It was really a good experience working with you. We are also thankful to our friends and family who have supported us throughout this journey.

Signed :

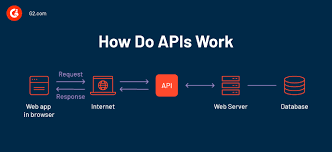
Vivek Kumar Tapas

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**Abstract**

API stands for application programming interface, which is a set of definitions and protocols for building and integrating application software. APIs let your product or service communicate with other products and services without having to know how they’re implemented.

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**Source: g2.com**

We were tasked to make a WhatsApp API that will receive your OTP request and forward it to your WhatsApp messenger.

**About YUKTI IDEA**

Established in [year], [the company] is in the business of doing [mention what they do]. They are well-known in the field for their [activities]. Their mission is to [mention business goals and/or social work commitments]. The company plays a role in promoting [mention social activities] for the welfare of the local community and the nation at large. I felt that their mission was compatible with my worldview and my future career goals, which is the reason I applied for an internship position with them.

**Our Role during the Internship**

As an intern with Yukti , we worked as software developers and were responsible for making WhatsApp API. I was part of the software development department. Together we worked on various systems like Visual Studio Code, Redis, Ngrok, and Python Flask.

REDIS: Redis is an open source (BSD licensed), in-memory **data structure store** used as a database, cache, message broker, and streaming engine.

NGROK:**ngrok** is a globally distributed reverse proxy fronting your web services running in any cloud or private network, or your machine.

FLASK: Flask is a lightweight WSGI web application framework. It is designed to make getting started quick and easy, with the ability to scale up to complex applications.

**Description of the internship experience**

As an intern in the software department, we got a list of tasks to complete every week of the month, and weekly meetings were held for the progress report of the tasks provided to us on the weekends.

The tasks we undertook includes ;

* Method for generating OTP for which we used python’s random int module
* Method for receiving the mobile number of the client
* Then we made a method for OTP verification by the client
* Then we learned to add time constraints to our OTP
* We generated resend OTP method which works when the time constraint ends.
* Creating front end using HTML.

**Conclusion**

from our internship, we were able to get a better understanding of how software firms work and how effective it is . During our internship, we came across many problems like syntax errors, system failures, and authority issues but the whole process of the internship was very joyful and we learned to push our limits. We got a new insight on how WhatsApp business works and how developers can integrate their app with the META world.

*Overall, I found the software developer internship experience to be positive, and I am sure I would be able to use the skills I learned in my career later.*

**CODE**

import random

from utils import \*

from flask import \*

from cacheManager import CacheManager

app = Flask(\_\_name\_\_)

cache\_manager = CacheManager()

timeout = 300

@app.route('/getOTP', methods = ['GET'])

def getOTP():

    number = request.args.get('number')

    otp = generateOTP()

    cache\_manager.setCache(number, otp, timeout)

    return str(otp)

@app.route('/validateOTP', methods = ['GET','POST'])

def validateOTP():

    number = request.args.get('number')

    otp = request.args.get('otp')

    cache\_otp = cache\_manager.getCache(number)

    if otp == cache\_otp:

        cache\_manager.deleteCache(number)

        return 'success'

    else:

        return 'failure'

@app.route('/resendOTP', methods = ['GET'])

def resendOTP():

    number = request.args.get('number')

    ttl = cache\_manager.getTTL(number)

    time\_passed = timeout - ttl

    if time\_passed < 120:

        return 'Please try after {} seconds'.format(120-time\_passed)

    else:

        otp = generateOTP()

        cache\_manager.setCache(number, otp, timeout)

        return str(otp)

@app.route('/receive\_msg', methods=['POST','GET'])

def webhook():

   if request.args.get("hub.mode") == "subscribe" and request.args.get("hub.challenge"):

       if not request.args.get("hub.verify\_token")== "Verifyubuntu":

           return "Verification token missmatch", 403

       return request.args['hub.challenge'], 200

   return "Hello world", 200

def send\_msg(msg):

   headers = {

       'Authorization': 'Bearer VERIFICATION\_TOKEN',

   }

   json\_data = {

       'messaging\_product': 'whatsapp',

       'to': 'MOBILE\_NUMBER',

       'type': 'text',

       "text": {

           "body": msg

       }

   }

   response = requests.post('https://graph.facebook.com/v13.0/PHONE\_NUMBER\_ID/messages', headers=headers, json=json\_data)

   print(response.text)

if \_\_name\_\_ == "\_\_main\_\_":

    app.run(host = 'localhost', port = 5000, debug=True)