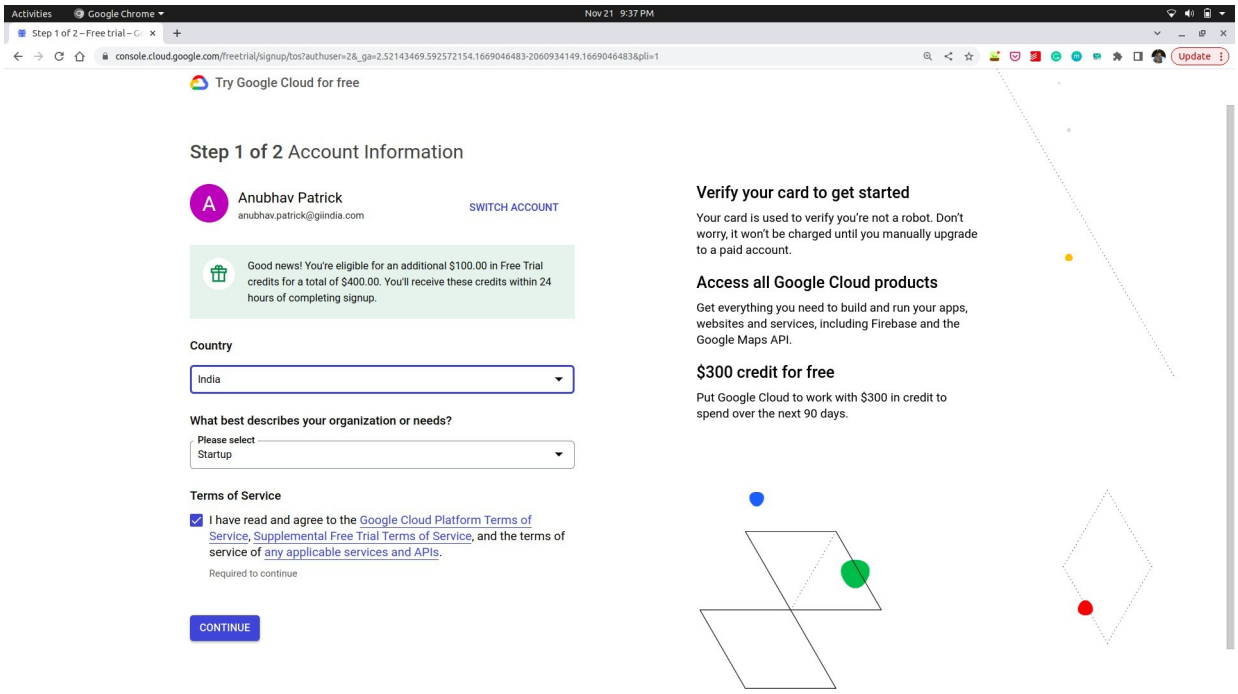
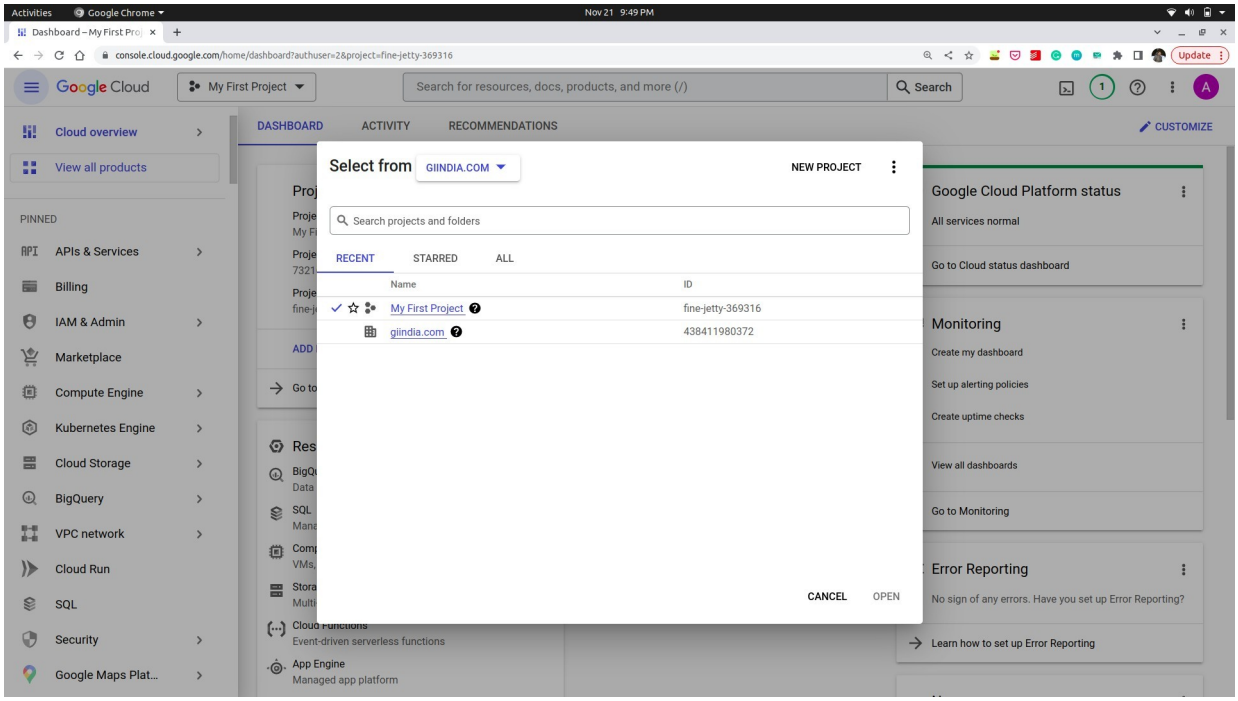
Sending Mail via GMail API

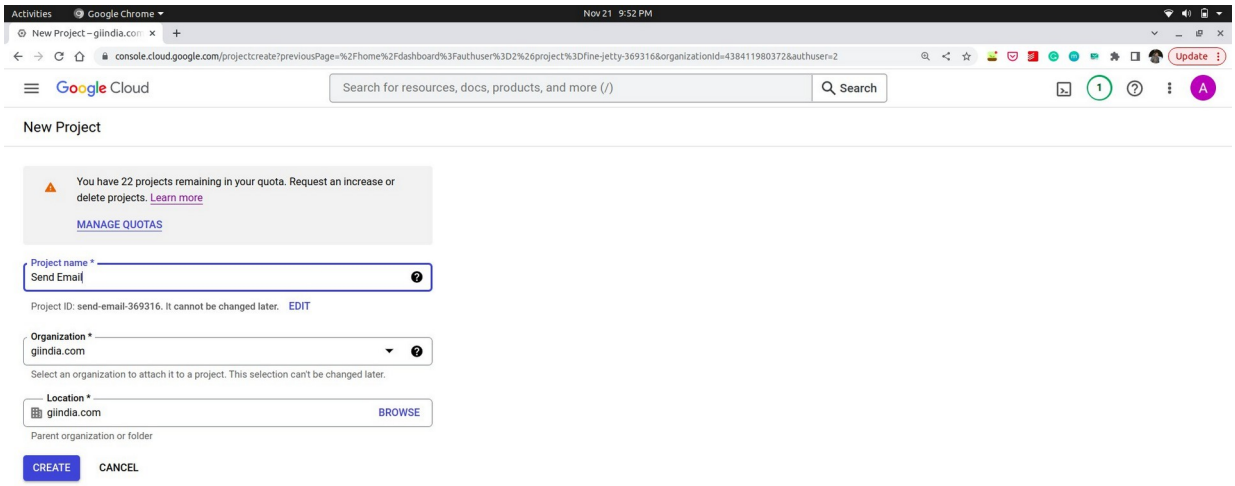
- Goto *console.cloud.google.com* and create an account



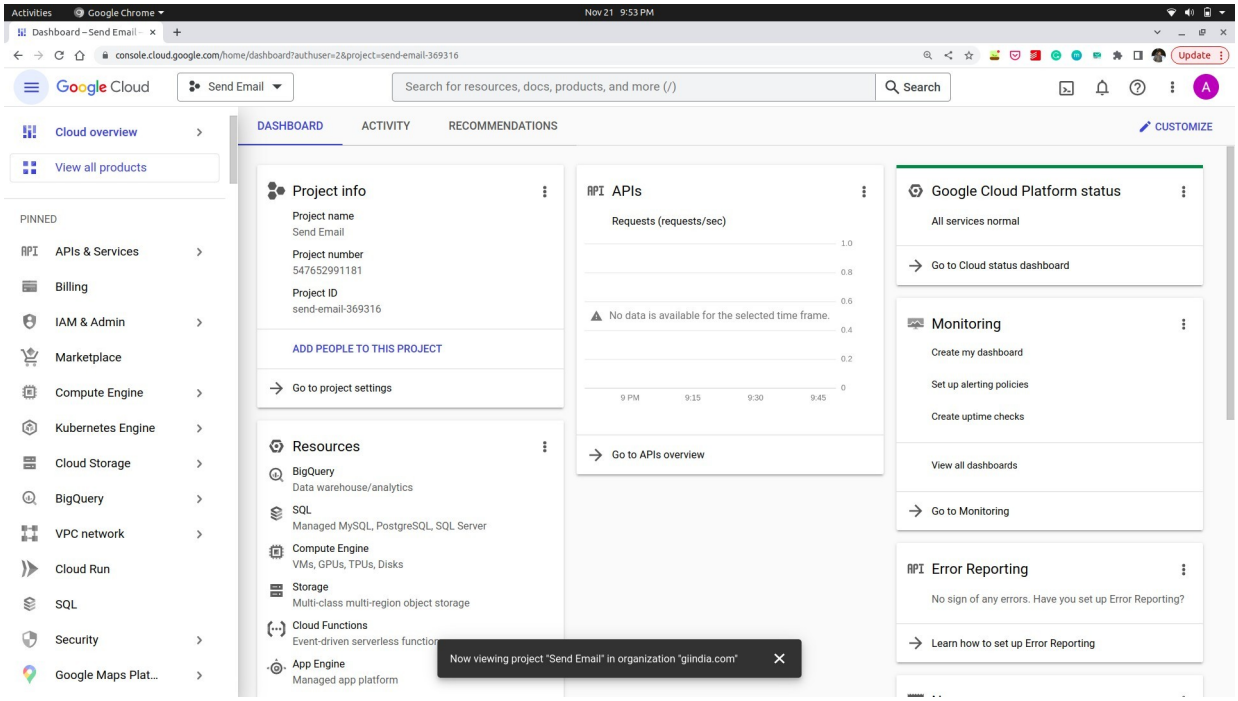
- Complete the setup of account

- Create a *New Project* by navigating the top pane

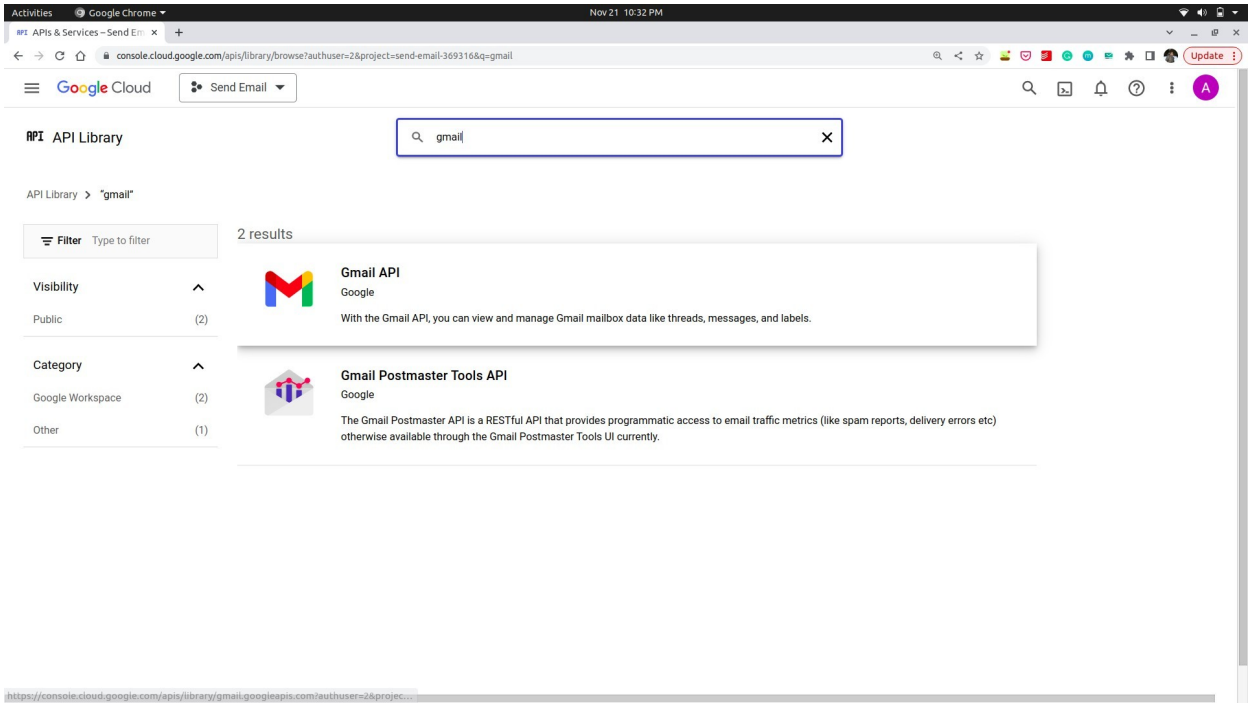




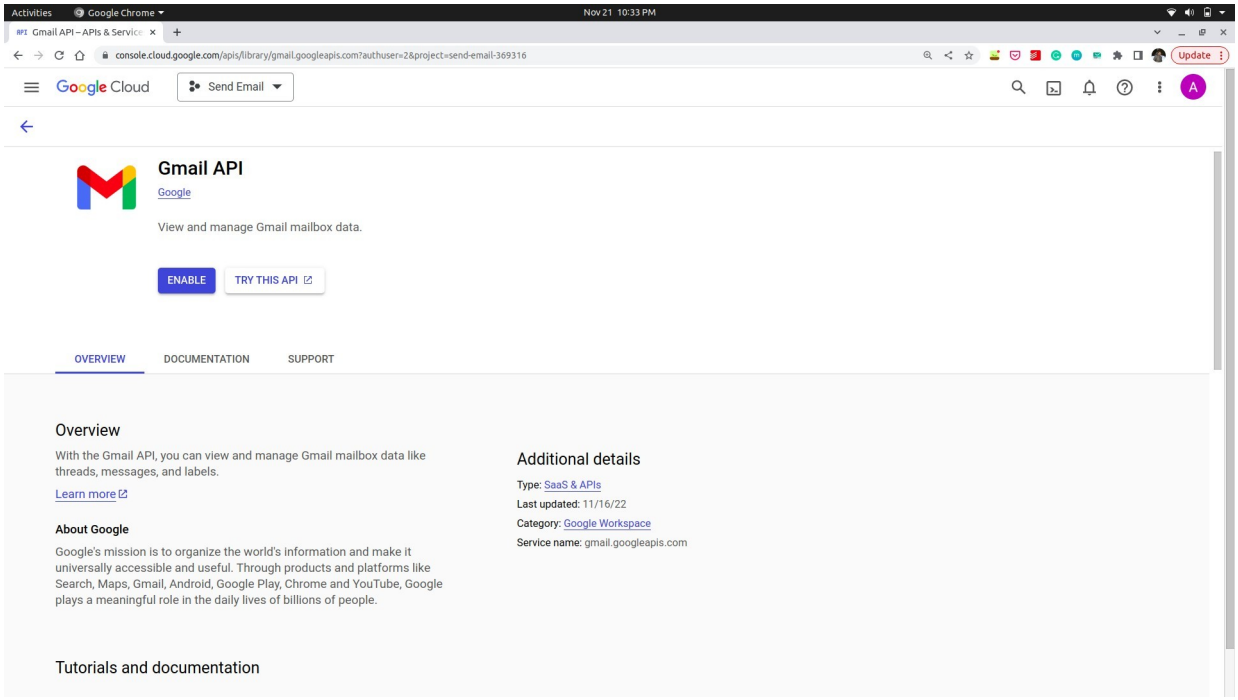
- Change the project to new project from top pane



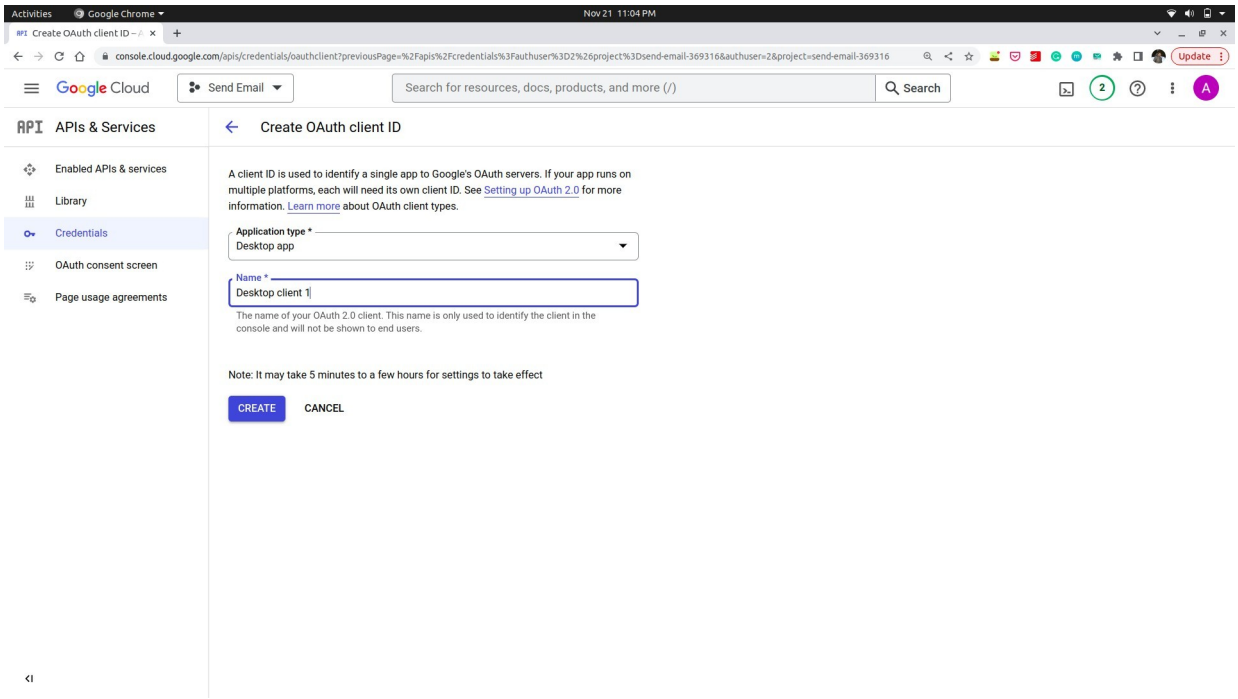
- Goto *APIs & Services* from the left pane then select *Enabled API & Services*. Then select *Enable API & Services*



Search for *Gmail* * Then select *Enable*



- Click *Credentials* → then click *Create Credentials*



Select Application type → *Destop app*
Give the app a relevant name or choose the default name. Click on *Create*
Download the client secret in *.json* format and rename it to *client_secrets.json* . **The client_secret.json file contains critical account information and should not be shared with anyone.**

- Create a project directory and change directory

```
mkdir gmail_api cd gmail_api
```

Create a python virtual environment and activate it

```
python -m venv venv/ source venv/bin/activate
```

Install the gmail library inside the virtual environment

```
pip install --upgrade google-api-python-client google-auth-httplib2 google-auth-oauthlib
```

Move the client secret (*client_secrets.json*) downloaded in step 8 to *gmail_api/* directory and **do not share this file anywhere else** since your gmail account can be accessed by anyone using these credentials.

Create a new python file inside *gmail_api/* titled *send_mail.py*:

```
'''
This module sends emails with attachments to the participants
Reference - https://developers.google.com/gmail/api/quickstart/python
'''

import os

from google.auth.transport.requests import Request
from google.oauth2.credentials import Credentials
from google_auth_oauthlib.flow import InstalledAppFlow
from googleapiclient.discovery import build
from googleapiclient.errors import HttpError
from email.mime.text import MIMEText
import base64


# If modifying these scopes, delete the file token.json.
SCOPES = ['https://www.googleapis.com/auth/gmail.send']

def aunthentication():
    creds = None
    # The file token.json stores the user's access and refresh tokens,
and is
    # created automatically when the authorization flow completes for the
first
    # time.
```

```
    if os.path.exists('token.json'):
        creds = Credentials.from_authorized_user_file('token.json',
SCOPES)
    # If there are no (valid) credentials available, let the user log in.
    if not creds or not creds.valid:
        if creds and creds.expired and creds.refresh_token:
            creds.refresh(Request())
        else:
            flow = InstalledAppFlow.from_client_secrets_file(
                'client_secrets.json', SCOPES)
            creds = flow.run_local_server(port=0)
        # Save the credentials for the next run
        with open('token.json', 'w') as token:
            token.write(creds.to_json())
    return creds


def prepare_and_send_email(recipient, subject, message_text):
    """Prepares and send email with attachment to the participants
    """
    creds = aunthentication()

    try:
        # Call the Gmail API
        service = build('gmail', 'v1', credentials=creds)

        #create message
        msg = create_message('anubhav.patrick@giindia.com', recipient,
subject, message_text)
        send_message(service, 'me', msg)

    except HttpError as error:
        # TODO(developer) - Handle errors from gmail API.
        print(f'An error occurred: {error}')



def create_message(sender, to, subject, message_text):
    """Create a message for an email.

    Args:
    sender: Email address of the sender.
    to: Email address of the receiver.
    subject: The subject of the email message.
    message_text: The text of the email message.

    Returns:
    An object containing a base64url encoded email object.
    """
```

```
    message = MIMEText(message_text)
    message['from'] = sender
    message['to'] = to
    message['subject'] = subject
    return {'raw':
base64.urlsafe_b64encode(message.as_string().encode()).decode()}


def send_message(service, user_id, message):
    """Send an email message.

    Args:
    service: Authorized Gmail API service instance.
    user_id: User's email address. The special value "me"
    can be used to indicate the authenticated user.
    message: Message to be sent.

    Returns:
    Sent Message.
    """
    try:
        message = (service.users().messages().send(userId=user_id,
body=message)
                   .execute())
        print('Message Id: %s' % message['id'])
        return message
    except HttpError as error:
        print('An error occurred: %s' % error)


if__name__== '__main__':
    prepare_and_send_email('anubhavpatrick@gmail.com', 'Greeting from
Global Infoventures', 'This is a test email for our upcoming app')
```

- Run the python file. At the first time you will be prompted to enter you Google account credentials. **Use the same credentials** that you used to sign up in Google Cloud.

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chooseaccount?response_type=code&client_id=547652991181-5j54ef3tkfo1ik0n4icnbtpofa8pqtcp.apps.googleusercontent.com&redirect_uri=http%3A%2F...