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Project name	Plasma donor app
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FLASK MAIL IS USING HERE BECAUSE SENDGRID IS NOT WORKING:

```
from flask import Flask, render_template, request, redirect, url_for, session
from flask_mail import Mail, Message
app.config['MAIL_SERVER']='smtp.gmail.com'
app.config['MAIL_PORT'] = 465
app.config['MAIL_USERNAME'] = 'example@gmail.com'
app.config['MAIL_PASSWORD'] = '*********
app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True
mail = Mail(app)
def index(usermail,subject,content):
 msg = Message(subject, sender = 'example@gmail.com', recipients = [usermail])
 msg.body = format(content)
 mail.send(msg)
 return "Sent"
Dockerfile:
FROM python:3.9
WORKDIR /app
ADD . /app
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COPY requirements.txt /app
RUN python3 -m pip install -r requirements.txt
EXPOSE 5000
CMD ["python","app.py"]
app.py:
from distutils.log import debug
# from sendgridmail import sendmail
from flask import Flask, render_template, request, redirect, url_for, session
from flask_mail import Mail, Message
import re
import os
import ibm_db
from dotenv import load_dotenv
load dotenv()
app = Flask(__name__)
app.secret_key = 'a'
print("Try to connect to Db2")
conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=****;PORT=
*****;UID=****;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;PWD=*****", ",")
print("Connected Successfully")
app.config['MAIL_SERVER']='smtp.gmail.com'
app.config['MAIL_PORT'] = 465
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app.config['MAIL_USERNAME'] = 'example@gmail.com'

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app.config['MAIL_PASSWORD'] = '*****'
app.config['MAIL_USE_TLS'] = False
app.config['MAIL_USE_SSL'] = True
mail = Mail(app)
@app.route('/')
@app.route('/login')
def login():
  return render_template('login.html')
@app.route('/loginpage',methods=['GET', 'POST'])
def loginpage():
  global userid
  msg = "
  if request.method == 'POST' :
    username = request.form['username']
    password = request.form['password']
    sql = "SELECT * FROM donors WHERE username =? AND password=?"
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt,1,username)
    ibm_db.bind_param(stmt,2,password)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_assoc(stmt)
    print (account)
    if account:
      session['loggedin'] = True
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session['id'] = account['USERNAME']
      userid= account['USERNAME']
      session['username'] = account['USERNAME']
      msg = 'Logged in successfully !'
      index(account['EMAIL'],'Plasma donor App login','You are successfully logged in!')
      return redirect(url_for('dash'))
    else:
      msg = 'Incorrect username / password !'
  return render_template('login.html', msg = msg)
@app.route('/registration')
def home():
  return render_template('register.html')
@app.route('/register',methods=['GET', 'POST'])
def register():
  msg = "
  if request.method == 'POST':
    username = request.form['username']
    email = request.form['email']
    password = request.form['password']
    phone = request.form['phone']
    city = request.form['city']
    infect = request.form['infect']
    blood = request.form['blood']
    sql = "SELECT * FROM donors WHERE username =?"
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt,1,username)
    ibm_db.execute(stmt)
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account = ibm_db.fetch_assoc(stmt)
    print("ac",account)
    if account:
      msg = 'Account already exists!'
    elif not re.match(r'[^@]+@[^@]+\.[^@]+', email):
      msg = 'Invalid email address!'
    elif not re.match(r'[A-Za-z0-9]+', username):
      msg = 'name must contain only characters and numbers !'
    else:
      insert_sql = "INSERT INTO donors VALUES (?, ?, ?, ?, ?, ?, ?)"
      prep_stmt = ibm_db.prepare(conn, insert_sql)
      ibm_db.bind_param(prep_stmt, 1, username)
      ibm_db.bind_param(prep_stmt, 2, password)
      ibm_db.bind_param(prep_stmt, 3, email)
      ibm_db.bind_param(prep_stmt, 4, phone)
      ibm_db.bind_param(prep_stmt, 5, city)
      ibm_db.bind_param(prep_stmt, 6, infect)
      ibm_db.bind_param(prep_stmt, 7, blood)
      ibm_db.execute(prep_stmt)
      msg = 'You have successfully registered, !'
      index(email, 'Plasma donor App Registration', 'You are successfully Registered
{}!'.format(username))
  elif request.method == 'POST':
    msg = 'Please fill out the form!'
  return render template('register.html', msg = msg)
@app.route('/dashboard')
```

```
def dash():
  if session['loggedin'] == True:
    sql = "SELECT COUNT(*), (SELECT COUNT(*) FROM DONORS WHERE blood= 'O Positive'), (SELECT
COUNT(*) FROM DONORS WHERE blood='A Positive'), (SELECT COUNT(*) FROM DONORS WHERE
blood='B Positive'), (SELECT COUNT(*) FROM DONORS WHERE blood='AB Positive'), (SELECT COUNT(*)
FROM DONORS WHERE blood='O Negative'), (SELECT COUNT(*) FROM DONORS WHERE blood='A
Negative'), (SELECT COUNT(*) FROM DONORS WHERE blood='B Negative'), (SELECT COUNT(*) FROM
DONORS WHERE blood='AB Negative') FROM donors"
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_assoc(stmt)
    print(account)
    return render_template('dashboard.html',b=account)
  else:
    msg = 'Please login!'
    return render template('login.html', msg = msg)
@app.route('/requester')
def requester():
  if session['loggedin'] == True:
    return render_template('request.html')
  else:
    msg = 'Please login!'
    return render template('login.html', msg = msg)
@app.route('/requested',methods=['POST'])
def requested():
  bloodgrp = request.form['bloodgrp']
  address = request.form['address']
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name= request.form['name']

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email= request.form['email']
  phone= request.form['phone']
  insert_sql = "INSERT INTO requested VALUES (?, ?, ?, ?, ?)"
  prep_stmt = ibm_db.prepare(conn, insert_sql)
  ibm_db.bind_param(prep_stmt, 1, bloodgrp)
  ibm_db.bind_param(prep_stmt, 2, address)
  ibm_db.bind_param(prep_stmt, 3, name)
  ibm_db.bind_param(prep_stmt, 4, email)
  ibm_db.bind_param(prep_stmt, 5, phone)
  ibm_db.execute(prep_stmt)
  index(email,'Plasma donor App plasma request','Your request for plasma is recieved.')
  return render_template('request.html', pred="Your request is sent to the concerned people.")
def index(usermail,subject,content):
 msg = Message(subject, sender = 'example@gmail.com', recipients = [usermail])
 msg.body = format(content)
 mail.send(msg)
 return "Sent"
@app.route('/logout')
def logout():
 session.pop('loggedin', None)
 session.pop('id', None)
 session.pop('username', None)
 return render_template('login.html')
if __name__ == '__main__':
```

app.run(host='0.0.0.0',debug='TRUE')

output:

Mail will be send to the concerned people i.e To the donor who registered with the plasma needed by the recipient using flask mail

