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Project Name	Project - Cloud Application Development

Assignment - 1
Using HTML and Flask Packages

1. Create registration page in html with username, email and phone number and by using POST method display it in next html page.
   - We have used **Flask** server to accept the post request from the client and display it in the next html page

2. Develop a flask program which should contain atleast 5 packages used from pypi.org.
   - Packages used here: **wikipedia, quoters, randimage, phoneumbers, email-validator**

   ● wikipedia - makes it easy to access and parse data from Wikipedia
   ● quoters - gives beautiful quotes randomly
   ● randimage - create random images in python
   ● phonenumbers - validates the phonenumber
   ● email-validator - checks that an email address has the correct syntax

Code :

app.py

```
from flask import Flask, render_template, request, redirect, url_for,
session
from randimage import get_random_image, show_array
import matplotlib
from email_validator import validate_email, EmailNotValidError
import phonenumbers
import wikipedia
from quoters import Quote
```

```python
app = Flask(__name__)
app.secret_key = 'IBM'

@app.route('/')
@app.route('/register', methods =['GET', 'POST'])
def register():
    msg = ''
    if(request.method=='GET'):
        img_size = (128,128)
        img = get_random_image(img_size)  #returns numpy array
        matplotlib.image.imsave("static//profile.png", img)
        text=Quote.print()
        return render_template('register.html',quote=text)


    if request.method == 'POST' and 'username' in request.form  and 'email'
in request.form and 'phone' in request.form :
        msg={}
        username = request.form['username']
        email = request.form['email']
        phone = request.form['phone']
        msg['username']=username
        msg['email']=email
        msg['phone']=phone
        desc=wikipedia.summary(username,sentences=4)
        is_new_account = True # False for login pages
        try:
            z = phonenumbers.parse(phone, None)
        except:
            return render_template('register.html', msg = "Phone number not
valid")
        try:
            validation = validate_email(email,
check_deliverability=is_new_account)
            email = validation.email
        except EmailNotValidError as e:
            return render_template('register.html', msg = "Email id not
valid")

        return render_template('login.html', msg = msg,desc=desc)
```

```python
    elif request.method == 'POST':
        msg = 'Please fill out the form !'
        return render_template('register.html', msg = msg)



if __name__ == '__main__':
    app.run(debug=True)
```

register.html

```html
<!-- Store this code in 'register.html' file inside the 'templates' folder
-->


<html>
    <head>
        <meta charset="UTF-8">
        <title> Register </title>
        <link rel="stylesheet" href="{{ url_for('static',
filename='style.css') }}">
    </head>
    <body></br></br></br></br></br>
        <div align="center">
        <div align="center" class="border">
            <div class="header">
                <h1 class="word">Register</h1>
            </div></br></br></br>
            <h2 class="word">
                <div class="quote"><b>Quote of the Day</b><br/>{{ quote
}}</div>
                <form action="{{ url_for('register') }}" method="post">
                <div class="msg">{{ msg }}</div>
                    <input id="username" name="username" type="text"
placeholder="Enter Your Username" class="textbox"/></br></br>
                    <input id="email" name="email" type="text"
placeholder="Enter Your Email ID" class="textbox"/></br></br>
                    <input id="phone" name="phone" type="text"
placeholder="Enter Your Phone number" class="textbox"/></br></br>
                    <input type="submit" class="btn" value="Submit"></br>
                </form>
            </h2>
```

```
        </div>
        </div>
    </body>
</html>
```

login.html

```html
<!-- Store this code in 'login.html' file inside the 'templates' folder
-->
<html>
    <head>
        <meta charset="UTF-8">
        <title> Profile</title>
        <link rel="stylesheet" href="{{ url_for('static',
filename='style.css') }}">
    </head>
    <body></br></br></br></br></br>
        <div align="center">
        <div align="center" class="border">
            <div class="header">
                <h1 class="word">Profile</h1>
                <img src="static/profile.png" alt="profile picture"/>
            </div></br></br></br>
            <h2 class="word">
                <form action="" method="post">
                {% for key,value in msg.items() %}
                <label>{{key}}</label>
                <input id={{key}} name={{key}} type="text"  placeholder='{{
value }}' class="textbox" readonly/></br></br>
                {% endfor %}
                </form>
            </h2>
            <div class="description"><b>About the username</b>
<br>{{desc}}</div>
            <p class="bottom">Go to registration page<a class="bottom"
href="{{url_for('register')}}"> Register again</a></p>
        </div>
```
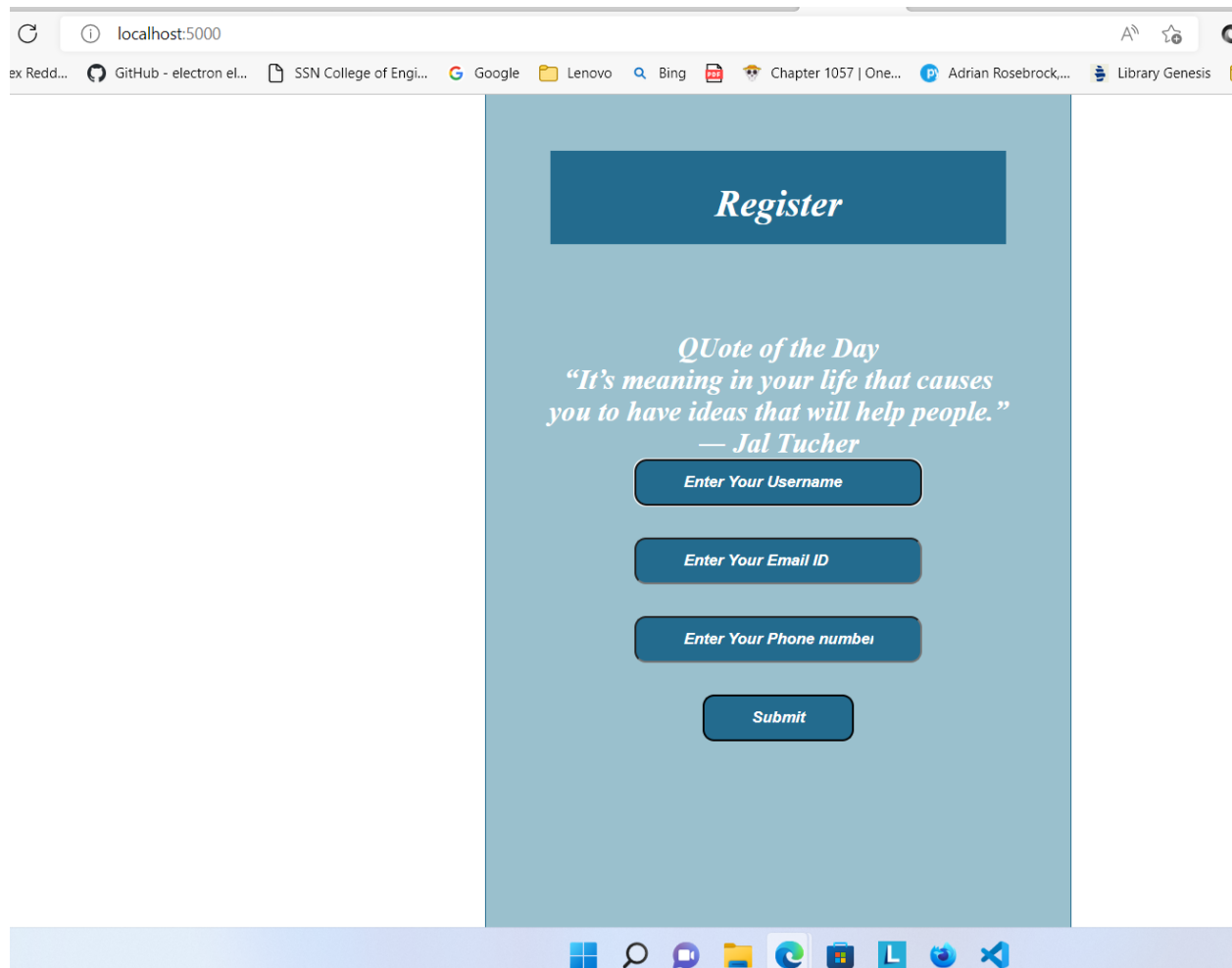
```
        </div>
    </body>
</html>
```

Output :

Register

QUote of the Day
"It's meaning in your life that causes
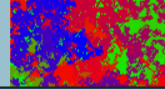you to have ideas that will help people."
— Jal Tucher

IBM

IBM@gmail.com

+918838114455

Submit

Profile

Your username is IBM co

Your email is IBM@gmail.

Your phone is +918838114

About the username

International Business Machines Corporation (IBM) is an American multinational technology corporation headquartered in Armonk, New York, with operations in over 171 countries. The company began in 1911, founded in Endicott, New York, by trust businessman Charles Ranlett Flint, as the Computing-Tabulating-Recording Company (CTR) and was renamed "International Business Machines" in 1924. IBM is incorporated in New York.IBM produces and sells computer hardware, middleware and software, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology. IBM is also a major research organization, holding the record for most annual U.S. patents generated by a business (as of 2021) for 29 consecutive years.Inventions by IBM include the automated teller machine (ATM), the floppy disk, the hard disk drive, the magnetic stripe card, the relational database, the SQL programming language, the UPC barcode, and dynamic random-access memory (DRAM).