Assignment No.	1
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Question-1:

Create registration page in html with username, email, and phone number and by using POST method display it in next html page.

index.html

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <title>Registration</title>
        <link rel="stylesheet" href="{{
url_for('static',filename='styles/index.css') }}">
    </head>
    <body>
        <center>
        <br><br>
        <h1>Registration</h1><br>
        <form action="{{ url_for('result') }}" method="post">
            <table>
                <tr>
                    <td>
                        <label>Name</label>
                    </td>
                    <td>
                        : <input type="text" class="name-input
name mb-3" id="name" name="name">
                    </td>
                </tr>
                <tr>
                    <td>
                        <label>Email</label>
                    </td>
                    <td>
                        : <input type="email" class="name-
input name mb-3" id="email" name="email">
                    </td>
```

```
                        </tr>
                        <tr>
                                <td>
                                        <label>Mobile</label>
                                </td>
                                <td>
                                        : <input type="number" class="name-
input name mb-3" id="mobile" name="mobile">
                                </td>
                        </tr>
                </table>
                <br><br>
                <input class="btn btn-outline-primary" type="submit"
value="Submit">
            </form>
            </center>
        </body>
</html>
```

result.html

```
<!DOCTYPE html>
<html>
        <head>
                <meta charset="utf-8">
                <meta name="viewport" content="width=device-width, initial-
scale=1">
                <title>Profile</title>
                <link rel="stylesheet" href="{{
url_for('static',filename='styles/index.css') }}">
        </head>
        <body>
        <center>
        <br><br>
        <h1>Welcome !!!</h1>
        <br>
        <form action="{{ url_for('result') }}" method="post">
            <table>
                <tr>
                        <h3>Name : {{ name }}<br></h3>
                </tr>
                <tr>
                        <h3>Email : {{ email }}<br></h3>
                </tr>
                <tr>
```

```
                    <h3>Mobile : {{ mobile }}<br></h3>
            </tr>
        </table>
        <br><br>
    </form>
    </center>
    </body>
</html>
```

app.py

```python
from flask import *;
import os

app = Flask(__name__)


@app.route('/', methods=['GET', 'POST'])
def home():
    if request.method == 'POST':
        name = request.form["name"]
        email= request.form["email"]
        mobile = request.form["mobile"]
        return redirect(url_for('result', name=name, email=email,
mobile=mobile))
    return render_template('index.html')


@app.route("/result", methods=['GET', 'POST'])
def result():
    name = request.form.get('name')
    email= request.form.get('email')
    mobile = request.form.get('mobile')
    return render_template('result.html', name=name, email=email,
mobile=mobile)

if __name__ == "__main__":
    app.run(debug=True, port=2807)
```

OUTPUT :

REGISTRATION

Name   : abc

Email   : abc@gmail.com

Mobile : 9876543210

Submit

WELCOME !!!

Name : abc

Email : abc@gmail.com

Mobile : 9876543210

Question-2:
Develop a Flask program which should contain at least 5 packages used from pypi.org

```python
#1. NUMPY
import numpy as np

arr = np.array([[-1, 2, 0, 4],
                [4, -0.5, 6, 0],
                [2.6, 0, 7, 8],
                [3, -7, 4, 2.0]])
print("Initial Array: ")
print(arr)
```

```
Initial Array:
[[-1.   2.   0.   4. ]
 [ 4.  -0.5  6.   0. ]
 [ 2.6  0.   7.   8. ]
 [ 3.  -7.   4.   2. ]]
```

```python
#2. PANDAS
import pandas as pd

s1 = pd.Series([1, 3, 4, 5, 6, 2, 9])

s2 = pd.Series([1.1, 3.5, 4.7, 5.8, 2.9, 9.3])

s3 = pd.Series(['a', 'b', 'c', 'd', 'e'])

Data ={'first':s1, 'second':s2, 'third':s3}

df = pd.read_csv('/content/sample_data/ds_salaries.csv')
print(df)
```

```
     Unnamed: 0  work_year experience_level employment_type  \
0             0       2020               MI              FT
1             1       2020               SE              FT
2             2       2020               SE              FT
3             3       2020               MI              FT
4             4       2020               SE              FT
..          ...        ...              ...             ...
602         602       2022               SE              FT
603         603       2022               SE              FT
604         604       2022               SE              FT
605         605       2022               SE              FT
606         606       2022               MI              FT

                    job_title  salary salary_currency  salary_in_usd
\
0                Data Scientist   70000             EUR          79833

1     Machine Learning Scientist  260000             USD         260000

2             Big Data Engineer   85000             GBP         109024
```

```
3         Product Data Analyst   20000              USD        20000

4     Machine Learning Engineer  150000             USD       150000

..                        ...    ...                ...           ...

602              Data Engineer  154000             USD       154000

603              Data Engineer  126000             USD       126000

604               Data Analyst  129000             USD       129000

605               Data Analyst  150000             USD       150000

606                AI Scientist  200000             USD       200000


     employee_residence   remote_ratio company_location company_size
0                    DE              0               DE            L
1                    JP              0               JP            S
2                    GB             50               GB            M
3                    HN              0               HN            S
4                    US             50               US            L
..                  ...            ...              ...          ...
602                  US            100               US            M
603                  US            100               US            M
604                  US              0               US            M
605                  US            100               US            M
606                  IN            100               US            L

[607 rows x 12 columns]
```
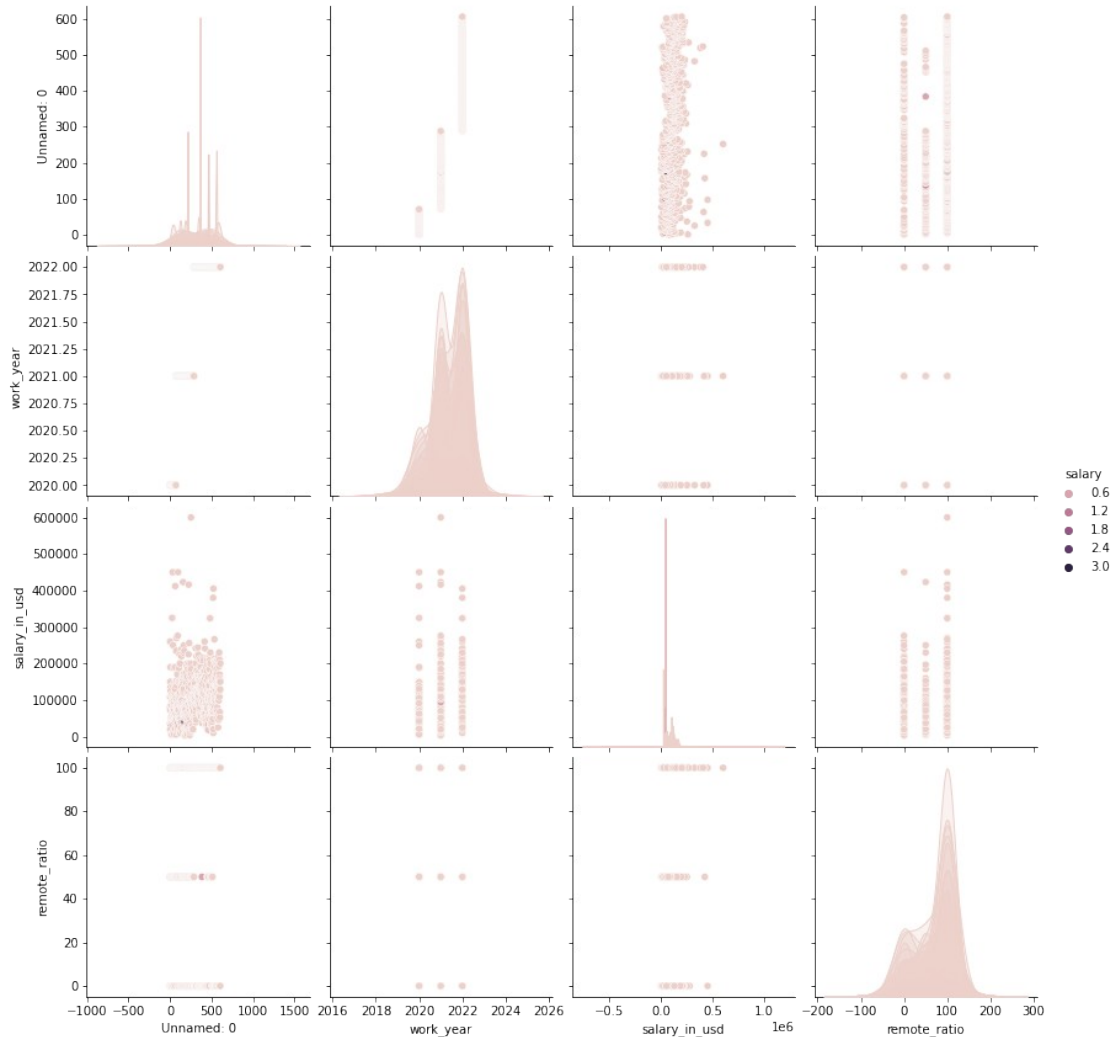
#3. SEABORN
```python
import seaborn as sns

sns.pairplot(df,hue="salary",height=3)
```

```
<seaborn.axisgrid.PairGrid at 0x7f32024d5650>
```

```
import tensorflow as tf

mnist = tf.keras.datasets.mnist
(x_train, y_train), (x_test, y_test) = mnist.load_data()
x_train, x_test = x_train / 255.0, x_test / 255.0

model = tf.keras.models.Sequential([
  tf.keras.layers.Flatten(input_shape=(28, 28)),
  tf.keras.layers.Dense(128, activation='relu'),
  tf.keras.layers.Dropout(0.2),
  tf.keras.layers.Dense(10)
])
```

```
from pytz import timezone
from datetime import datetime

format = "%Y-%m-%d %H:%M:%S %Z%z"
```

```python
now_utc = datetime.now(timezone('UTC'))
print(now_utc.strftime(format))

now_asia = now_utc.astimezone(timezone('Asia/Kolkata'))
print(now_asia.strftime(format))
```

```
2022-10-07 16:36:09 UTC+0000
2022-10-07 22:06:09 IST+0530
```