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Course:	Python programming	Usn:	4AL17EC076
Topic:	Application 10	Semester and section	6 th sem and B sec

APPLICATION 10: Project Exercise on Building a Geocoder web service

→ Frontend code

```
from flask import Flask, render_template, request, send_file
from geopy.geocoder import Nominatim
import pandas

app = Flask(__name__)
@app.route("/")
def index():
    return render_template("index.html")
@app.route('/success-table', methods=['POST'])
def success_table():
    if request.method == "POST":
        file = request.files['file']
        df = pandas.read_csv(file)
        gc = Nominatim()
        df['Coordinates'] = df['Address'].apply(gc.geocode)
        df['Latitude'] = df['Coordinates'].apply(lambda x:
            x.latitude if x != None else None)
        df['Longitude'] = df['Coordinates'].apply(lambda x:
            x.longitude if x != None else None)
        df = df.drop('Coordinates', 1)
```

```
df.to_csv("uploads/geocoded.csv", index=None)
return render_template("index.html", text=df.to_html,
    btn='download.html')
@app.route("/download-file")
def download():
    return send_file(filename, attachment_filename='yourfile.csv', as_attachment=True)
if __name__ == "__main__":
    app.run(debug=True)
```

* Backend

html

```
<!DOCTYPE html>
<html lang="en">
<title>Super Geocoder </title>
<head>
<link href="../static/main.css" rel="stylesheet">
</head>
<body>
<div class="container">
<h1>Super Geocoder </h1>
<h3>Please upload your csv file. The
values containing addresses should be in a
column named <em>address</em> or
<em>Addresses</em> </div>
```

```
<form action="{{url_for('success_table')}}"  
      method="post" enctype="multipart/form-data"  
<input type="file" accept=".csv" name="file" />  
<button type="submit"> submit </button>  
</form>  
<div class="output">  
  {{text/safe}}  
  {% include btn_ignore_missing %}  
</div>  
</div>  
</body>  
</html>
```