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**Batch Code :** *LISUM06*

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## **Deployment on Flask**

### **Writing Flask Application**

```
1  import numpy as np
2  from flask import Flask,request,render_template
3  import pickle
4  import warnings
5  warnings.filterwarnings("ignore")
6
7  app = Flask(__name__)
8  model = pickle.load(open('drugs_model.pkl', 'rb'))
9
10 @app.route('/')
11 def home():
12     return render_template('index.html')
13
14 @app.route('/predict',methods = ['POST'])
15 def predict():
16     int_features = [int(x) for x in request.form.values()]
17     #int_features = [int_features]
18     final_features = np.array(int_features)
19     final_features = final_features.reshape(1, 5)
20     prediction = model.predict(final_features)
21     output = prediction[0]
22     #print(output)
23     return render_template('index.html',prediction_text = 'The Drug is : '+ output)
24
25 if __name__ == '__main__':
26     app.run(port= 5000)
```

## Writing template code

```
<!DOCTYPE html>
<html >
<head>
  <meta charset="UTF-8">
  <title>ML API</title>
  <link href='https://fonts.googleapis.com/css?family=Pacifico' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Arimo' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Hind:300' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Open+Sans+Condensed:300' rel='stylesheet' type='text/css'>
<link rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}">

</head>
<body>
<div class="login">
  <h1>Predict Drug Type</h1>
  <!-- Main Input For Receiving Query to our ML -->
  <form action="{{ url_for('predict') }}" method="post">

    <label for="Age">Age :</label>
    <input type="text" name="Age" placeholder="Age" required="required" />

    <br><br><label for="Sex">Sex :</label>
    <select id="Sex" name="Sex">
    <option value=1>Male</option>
    <option value=0>Female</option>
    </select>

    <br><br><label for="BP">BP :</label>
    <select id="BP" name="BP">
    <option value=0>High</option>
    <option value=1>Low</option>
    <option value=2>Normal</option>
    </select>

    <br><br><label for="Cholesterol">Cholesterol :</label>
    <select id="Cholesterol" name="Cholesterol">
    <option value=0>High</option>
    <option value=1>Normal</option>
    </select>

    <br><br><label for="Na_to_K">Na_to_K :</label>
    <input type="text" name="Na_to_K" placeholder="Na_to_K" required="required" />

    <br><br><button type="submit" class="btn btn-primary btn-block btn-large">Predict</button>
  </form>

  <br> <br>
  {{prediction_text}}

</div>


</body>
</html>
```

## Running Flask Application

```
(base) C:\Users\Saad\Python data\Flask deployment>app1.py
* Serving Flask app 'app1' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [10/Mar/2022 13:06:48] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [10/Mar/2022 13:06:48] "GET /static/css/style.css HTTP/1.1" 404 -
127.0.0.1 - - [10/Mar/2022 13:06:48] "GET /static/images/Original.svg HTTP/1.1" 404 -
```

Open link in Browser

## Predict Drug Type

Age :

Sex :

BP :

Cholesterol :

Na\_to\_K :

Test Model and Get results

## Predict Drug Type

Age :

Sex :

BP :

Cholesterol :

Na\_to\_K :

The Drug is : drugA