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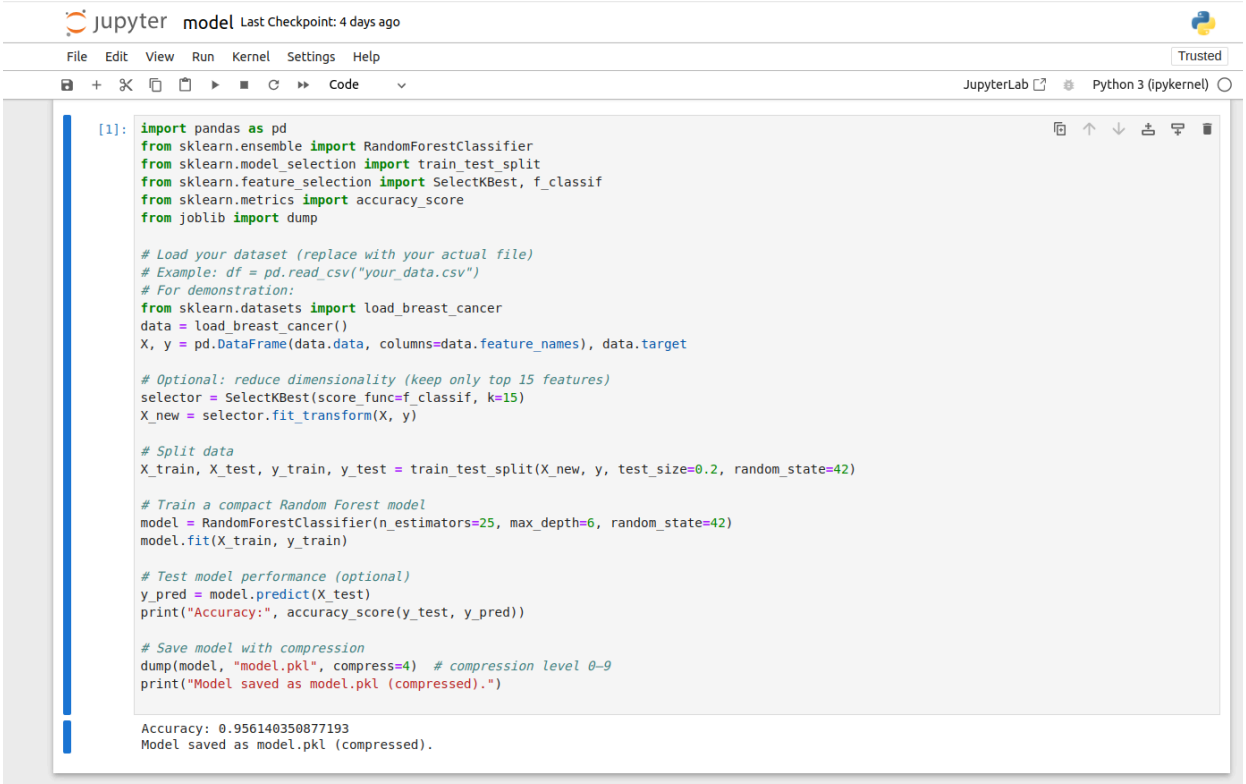
Batch Code: LISUM45

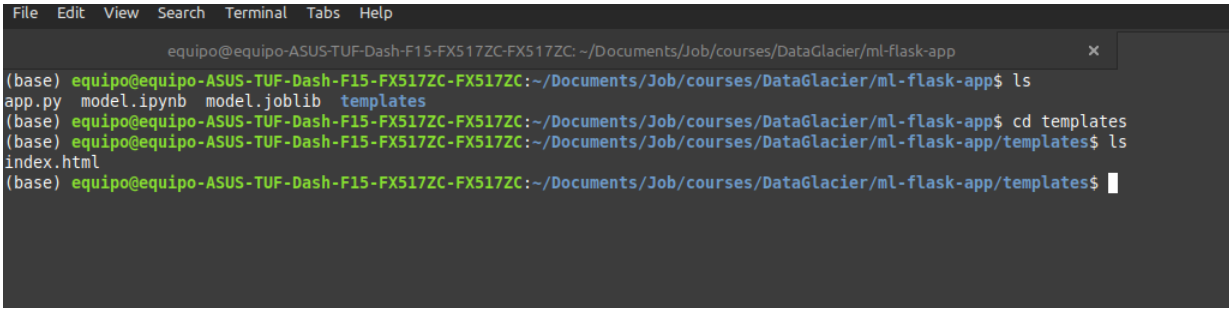
Submission Date : 8 June 2025

Deployment on Flask

- **Prepare the model (Using Toy Data)**



- **Project Structure**



1. app.py

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code.txt × app.py × requirements.txt × info.txt × app.py × index.html ×

```
from flask import Flask, request, render_template
import numpy as np
from joblib import load

model = load('model.joblib')
app = Flask(__name__)

@app.route('/')
def home():
    return render_template('index.html')

@app.route('/predict', methods=['POST'])
def predict():
    inputs = [float(x) for x in request.form.values()]
    prediction = model.predict([inputs])[0]
    return render_template('index.html', prediction_text=f'Tumor is {"Malignant" if prediction == 0 else "Benign"}')

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

2. templates/index.html

Open

index.html
~/Documents/Job/courses/DataGlacier/ml-flask-app/templates

index.html

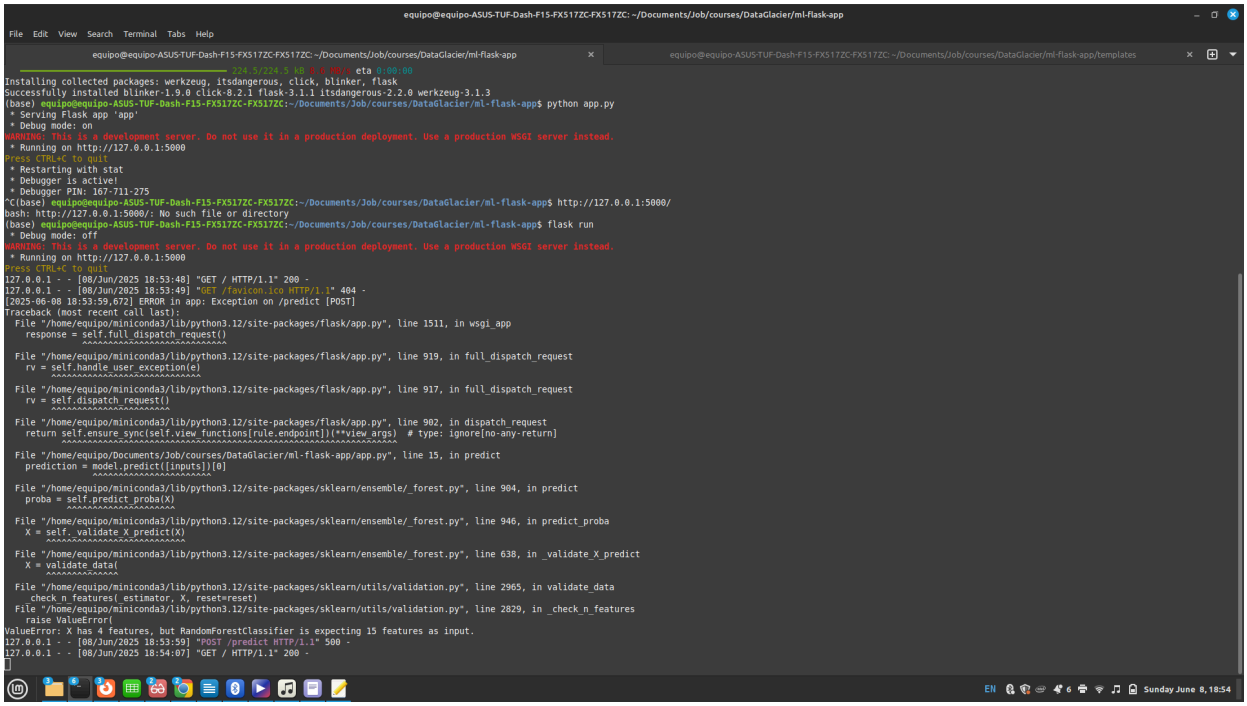
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Breast Cancer Prediction</title>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css">
</head>
<body class="bg-light">
    <div class="container mt-5">
        <h2 class="mb-4">Enter Tumor Features</h2>
        <form action="/predict" method="post" class="row g-3">
            <div class="col-md-6">
                <label for="radius" class="form-label">Mean Radius</label>
                <input type="number" step="any" name="mean radius" class="form-control" required>
            </div>
            <div class="col-md-6">
                <label for="texture" class="form-label">Mean Texture</label>
                <input type="number" step="any" name="mean texture" class="form-control" required>
            </div>
            <div class="col-md-6">
                <label for="perimeter" class="form-label">Mean Perimeter</label>
                <input type="number" step="any" name="mean perimeter" class="form-control" required>
            </div>
            <div class="col-md-6">
                <label for="area" class="form-label">Mean Area</label>
                <input type="number" step="any" name="mean area" class="form-control" required>
            </div>
            <div class="col-12">
                <button type="submit" class="btn btn-primary">Predict</button>
            </div>
        </form>

        {% if prediction_text %}
        <div class="alert alert-info mt-4" role="alert">
            <h4 class="alert-heading">Prediction Result:</h4>
            <p>{{ prediction_text }}</p>
        </div>
        {% endif %}
    </div>
</body>
</html>
```

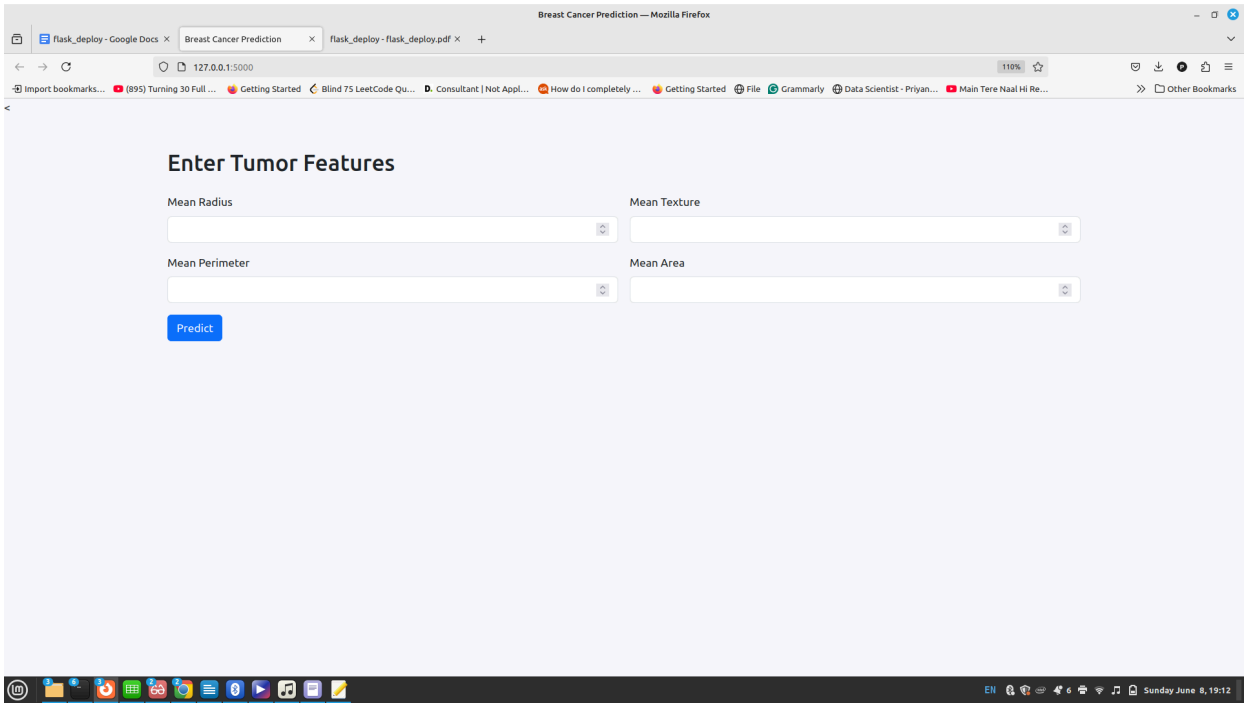
Run the app:

- **python app.py**

```
Successfully installed blinker-1.9.0 click-8.2.1 flask-3.1.1 itsdangerous-2.2.0 werkzeug-3.1.3
(base) equipo@equipo-ASUS-TUF-Dash-F15-FX517ZC-FX517ZC:~/Documents/Job/courses/DataGlacier/ml-flask-app$ python app.py
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 167-711-275
```

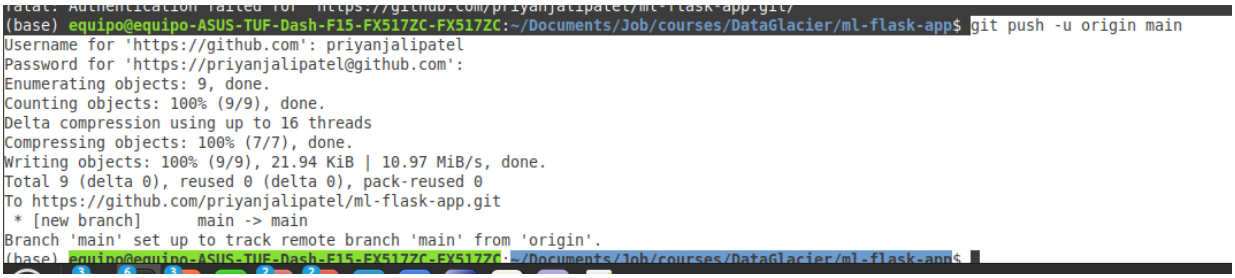
Running on http://127.0.0.1:5000/





P.S. : I am getting error in after entering the values of the Tumor Features.

7. Push to GitHub


fatal: Authentication failed for 'https://github.com/priyanjalipatel/ml-flask-app.git/
(base) equipo@equipo-ASUS-TUF-Dash-F15-FX517ZC-FX517ZC:~/Documents/Job/courses/DataGlacier/ml-flask-app$ git push -u origin main
Username for 'https://github.com': priyanjalipatel
Password for 'https://priyanjalipatel@github.com':
Enumerating objects: 9, done.
Counting objects: 100% (9/9), done.
Delta compression using up to 16 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (9/9), 21.94 KiB | 10.97 MiB/s, done.
Total 9 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/priyanjalipatel/ml-flask-app.git
 * [new branch]   main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
(base) equipo@equipo-ASUS-TUF-Dash-F15-FX517ZC-FX517ZC:~/Documents/Job/courses/DataGlacier/ml-flask-app$

- **Summary**