Coding and Solution

Coding:

```
 import numpy as np

from flask import Flask, request, jsonify, render_template

import pickle

#importing the inputScript file used to analyze the URL

import inputScript

import requests

# NOTE: you must manually set API_KEY below using information retrieved from your IBM Cloud account.

API_KEY = "nIRKSVDmk9sXH4oW1LtPgRbeaJMA8x0qJLtH2WFTt24L"

token_response = requests.post('https://iam.cloud.ibm.com/identity/token', data={"apikey":

 API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})

mltoken = token_response.json()["access_token"]

header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}

#load model

app = Flask(_name_)

model = pickle.load(open('Phishing_Website.pkl', 'rb'))


@app.route('/')

def predict1():

    return render_template('index.html')

#Redirects to the page to give the user iput URL.
```

```
@app.route('/predict')
def predict():
    return render_template('final.html')
#Fetches the URL given by the URL and passes to inputScript
@app.route('/y_predict',methods=['POST'])
def y_predict():
    '''
    For rendering results on HTML GUI
    '''
    url = request.form['URL']
    checkprediction = inputScript.main(url)
    scoring = {"input_data": [{"field":
[["UsingIP","LongURL","ShortURL","Symbol@","Redirecting//","PrefixSuffix-
","SubDomains","HTTPS","DomainRegLen","Favicon","NonStdPort","HTTPSDomainURL","
RequestURL","AnchorURL","LinksInScriptTags","ServerFormHandler","InfoEmail","Abnorma
lURL","WebsiteForwarding","StatusBarCust","DisableRightClick","UsingPopupWindow","Ifra
meRedirection","AgeofDomain","DNSRecording","WebsiteTraffic","PageRank","GoogleIndex"
,"LinksPointingToPage","StatsReport"
                                ]], "values": checkprediction}]}
    response_scoring = requests.post('https://us-
south.ml.cloud.ibm.com/ml/v4/deployments/bf163e78-832a-470d-894f-
f7b8fbe4ac0d/predictions?version=2022-11-18', json=scoring,
    headers={'Authorization': 'Bearer ' + mltoken})
    print("Scoring response")
    predictions = response_scoring.json()
```

```
    pred =
    predictions['predictions'][0]['values'][0][0]
    output=pred
    if(pred==1):
        pred="Your are safe!! This is a Legitimate Website."
    else:
        pred="You are on the wrong site. Be cautious!"
    return render_template('final.html', prediction_text='{}'.format(pred),url=url)


#Takes the input parameters fetched from the URL by inputScript and returns the predictions
@app.route('/predict_api',methods=['POST'])
def predict_api():
    '''
    For direct API calls trought
    request '''
    data = request.get_json(force=True)
    prediction =
    model.y_predict([np.array(list(data.values()))]) output =
    prediction[0]
                        return
          jsonify(output) if
  _name_ == "_main_":
     app.run(debug=True)
if _name_ == '_main_':
```

app.run(host='0.0.0.0',

debug=True)

Solution: