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# traffic volume_lbm_scoring end point.ipynb

# 1. Import Required Libraries
import numpy as np
import pandas as pd
import pickle

# 2. Load the Encoder and Model
with open('../encoder.pkl', 'rb') as f:
    encoder = pickle.load(f)

    with open('../model.pkl', 'rb') as f:
        model = pickle.load(f)

        # 3. Sample Input for Prediction
        sample_input = {
            "holiday": "None",
                "weather_main": "Clear",
                    "temp": 290.5,
                        "rain_1h": 0.0,
                            "snow_1h": 0.0,
                                "clouds_all": 10,
                                    "hour": 14,
                                        "day_of_week": "Tuesday"
                                        }

                                        # Convert input to DataFrame
                                        input_df = pd.DataFrame([sample_input])

                                        # 4. Encode Categorical Columns
                                        categorical_cols = ["holiday", "weather_main", "day_of_week
                                        input_encoded = encoder.transform(input_df[categorical_cols
                                        input_encoded_df = pd.DataFrame(input_encoded, columns=enco

                                        # Combine encoded + numerical features
                                        numerical_cols = ["temp", "rain_1h", "snow_1h", "clouds_all
                                        final_input = pd.concat([input_encoded_df, input_df[numeric

                                        # 5. Make Prediction
                                        predicted_traffic = model.predict(final_input)

                                        print("Predicted Traffic Volume:", int(predicted_traffic[0]
```